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 Action is Being Proposed?

Framework Amendment 8 amends the Fishery Management Plan (FMP) for Coastal Migratory Pelagic (CMP) 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 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 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 would provide final approval on the action. Approved by the South Atlantic Council, this framework amendment will be submitted to the National Marine Fisheries Service (NMFS) implementation. NMFS is a line office in the National Oceanic and Atmospheric Administration.

1.3 Why is the South Atlantic Council Considering Action?

The 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 commercial 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, and Season 2 is October 1 through the end of February. Sixty percent of the Atlantic king mackerel quota for the Southern Zone is allocated to Season 1 and 40 percent is allocated to Season 2. Amendment 26 specified trip limits for different areas in the Atlantic Southern Zone:

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.

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 expressed concern about the Amendment 26 trip limits. Framework Amendment 6 to the CMP FMP addressed fishermen 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 Miami-Dade/Monroe county line (Volusia County). The underlined text in the following indicates how commercial king mackerel trip limits were modified through the final rule to implement Framework Amendment 6 (84 FR 47902; September 11, 2019) (**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):

- <u>March 1 – March 31 (Season 1): 75 fish</u>
- <u>April 1 – September 30 (Season 1): 3,500 pounds</u>
- 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):

- <u>March 1 – March 31 (Season 1): 75 fish</u>
- 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 South Atlantic Council's Mackerel Cobia Advisory Panel (AP), AP members and other stakeholders expressed their concerns about the 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 South Atlantic 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 South Atlantic Council meeting, commercial king mackerel fishermen asked the South Atlantic Council to take emergency action and raise the trip limit during Season 2.

New information presented at the June 2019 South Atlantic Council meeting showed that, since the implementation of Amendment 26, the commercial king mackerel Season 2 quota was not harvested (**Table 1.3.1**). Comments from commercial king mackerel fishermen at the June 2019 South Atlantic Council meeting indicated the current Season 2 commercial trip limit of 50 fish in the southern zone has prevented them from fully utilizing the available resource, and this lower trip limit during Season 2 also has prevented fishermen 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.

After reviewing all of the information, the South Atlantic Council voted to request that NMFS implement an emergency rule to increase the commercial trip limit for king mackerel from 50-fish to 75-fish beginning in October 2019 for the 2019/2020 fishing season in the Atlantic Southern Zone south of the Flagler/Volusia county, Florida, boundary. The South Atlantic Council sent their request to NMFS in a letter dated June 21, 2019. The higher trip limit was expected to reduce inefficiencies associated with a fishing trip, increase economic opportunities, and enhance social benefits, but would not increase the overall Season 2 quota or commercial annual catch limit (ACL) for king mackerel. Since commercial king mackerel landings have not reached the Southern Zone Season 2 quota in recent years, the South Atlantic Council and NMFS determined that it is unlikely that increasing the trip limit would result in an early closure. Nonetheless, the commercial ACL and accountability measures would continue to constrain harvest and prevent overfishing. The emergency rule was published in the *Federal Register* on September 30, 2019 (84 FR 51435), and increased the trip limit from October 1, 2019, through February 29, 2020.

Unless modified via Framework Amendment 8, the commercial trip limit will revert back from the change in the emergency rule to 50 fish during Season 2.

1.3.1 Purpose and Need Statement

The *purpose* is to increase 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, the final rule for Amendment 26 established a year-round management boundary between the Gulf and South Atlantic Councils for king mackerel in the CMP FMP at the Miami-Dade/Monroe county, Florida, boundary (**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.

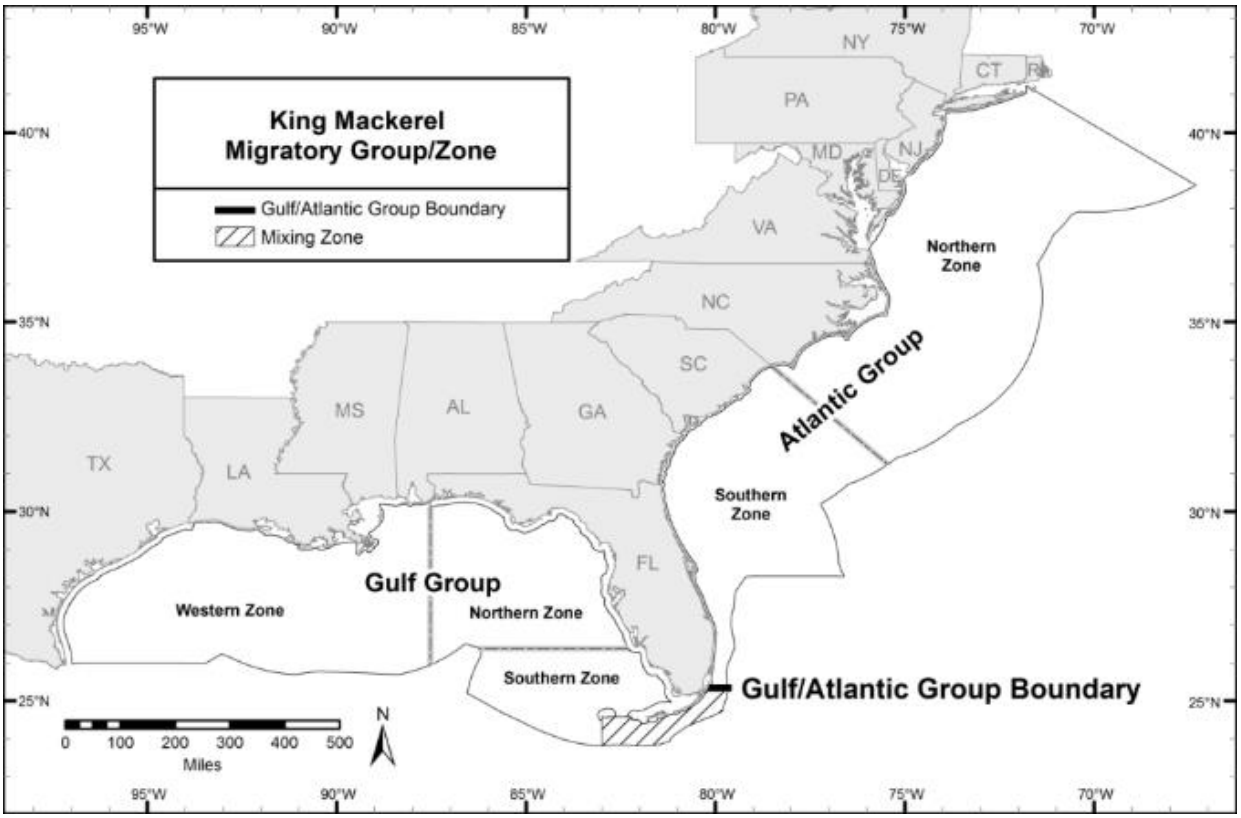

Figure 1.4.1. Boundary between Gulf and Atlantic king mackerel migratory groups.

Chapter 2. Proposed Action and Alternatives

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

Alternative 1 (No Action): The commercial trip limits for Atlantic king mackerel in Season 2 south of the Flagler/Volusia line (29º25'N) to the Miami-Dade/Monroe line (25º20'24"N) are: 75 fish for October 2019 – February 29, 2020, via the emergency rule. After February 29, 2020:

- 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: Increase 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 Miami-Dade/Monroe line (25º20'24"N):

- October 1 – January 31: 75 fish
- February 1 – end of February: 75 fish, unless NMFS determines that less than 70% of the Season 2 quota has been landed, then, 100 fish.

Alternative 3: Increase 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 Miami-Dade/Monroe line (25º20'24"N):

- October 1 – January 31: 100 fish
- February 1 – end of February: 100 fish, unless NMFS determines that less than 70% of the Season 2 quota has been landed, then, 150 fish.

Alternative 4: Increase 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 Miami-Dade/Monroe line (25º20'24"N):

- October 1 – January 31: 150 fish
- February 1 – end of February: 150 fish, unless NMFS determines that less than 70% of the Season 2 quota has been landed, then, 175 fish.

Preferred Alternative 5: Increase 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 Miami-Dade/Monroe line (25º20'24"N):

- October 1 the end of February: 100 fish

2.1.1. Comparison of Alternatives

Alternative 1 (No Action) would not revise the trip limit system in the exclusive economic zone (EEZ) for the Atlantic Southern Zone during Season 2 (October 1 to the end of February).

North of the Flagler/Volusia county line the trip limit remains 3,500 pounds year-round. South of the Flagler/Volusia county line, beginning October 1 through the end of February, the trip limit is 75-fish via the emergency rule. Beginning in 2020, from October 1st through January 31st the trip limit is 50 fish. From February 1 through the end of February, the trip limit is 50-fish unless the National Marine Fisheries Service determines that less than 70% of the Season 2 quota has been landed by February 1, then the trip limit is raised to 75-fish. The actions in Framework 8 to the Fishery Management Plan for Coastal Migratory Pelagic Resources of the Gulf of Mexico and Atlantic Regions would only modify the Season 2 trip limits South of the Flagler/Volusia boundary (29º25'N) to the Miami-Dade/Monroe, Florida, boundary (25º20'24"N).

The action in this framework amendment is not expected to have a large impact on overall landings (**Appendix D**). Commercial harvest of Atlantic king mackerel in the Northern and Southern Zones is managed under an annual catch limit (ACL), which is divided into two quotas for each zone, and trip limits help in ensuring catch does not exceed the ACL. Generally, trip limits slow the rate of harvest and may reduce the number of regulatory discards associated with Atlantic king mackerel. In the past, trip limits have been effective in managing Atlantic king mackerel and the Season 2 quota has not been reached. Because **Alternative 1 (No Action)** (after the expiration of the emergency rule) would not increase the trip limit, it could be expected to have the greatest biological benefit to the stock, followed by **Alternative 2**, **Preferred Alternative 5, Alternative 3** and **Alternative 4**, which would each increase the trip limits. Regulatory discards may increase if the fishing season closes early, constituting a negative biological effect. However, ACLs are in place to prevent overfishing, and accountability measures are in place to take action if ACLs are exceeded. Modification of Atlantic king mackerel commercial trip limits would not be expected to have any impact on essential fish habitat, habitat areas of particular concern, protected species, or on bycatch.

Alternative 2, **Alternative 3**, **Alternative 4**, and **Preferred Alternative 5** propose a higher Season 2 trip limit for the EEZ south of the Flagler/Volusia county line, 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, have indicated that **Alternative 1 (No Action)**, prior to the implementation of the emergency rule, 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.

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 lengthening of seasons. Given the ACL for Atlantic king mackerel restricts maximum harvest to sustainable levels, the alternative with the largest trip limit would be expected to result in the smallest number of trips to land the same amount of king mackerel and would have the lowest associated trip costs; however, that is dependent on the carrying capacity of permitted vessels.

Alternative 1 (No Action) would retain the current trip limits and, consequently, have no additional beneficial or adverse economic effects. **Alternative 4** would allow for the largest increases in landings, dockside revenues and economic impacts. However, **Alternative 4** could result in an early closure with or without carryover. Any unused portion of the Atlantic king mackerel quota from Season 1 can be carried over into Season 2; however, quota cannot be carried over into the next fishing year. Without carryover, **Alternative 4** could result in a harvest closure for Atlantic king mackerel in the Southern Zone as early as December and current economic benefits from the resource in January and February would be eliminated. **Preferred Alternative 5** and **Alternative 3** would allow for the largest increases in dockside revenue and associated economic impacts without an early closure if there is carryover. Without carryover, **Preferred Alternative 5** and **Alternative 3** would allow for the second largest increase in dockside revenue and associated economic impacts, but the season could close in January. **Alternative 2** would allow for the smallest increases in dockside revenue and associated economic impacts with or without a carryover. If there is no carryover, the season could close before the end of February.

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**, **Alternative 4**, and **Preferred Alternative 5** would allow commercial fishermen in the EEZ south of the Flagler/Volusia county line, 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 Atlantic king mackerel landings have not reached the quotas or 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.

Alternative 2, **Alternative 3**, and **Alternative 4**, propose a higher potential increase in the trip limit come February 1 if less than 70% of the ACL has been caught. This step-up would help ensure that the full commercial king mackerel ACL has an opportunity to be caught and that all associated social benefits are realized. Alternatively, **Preferred Alternative 5** does not include a step up during the month of February, which may help to ensure that commercial harvest for Atlantic king mackerel in the Southern Zone does not close before the end of the fishing year (the end of February).

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 (Mid-Atlantic 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 80ºF 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 term 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 20ºC; 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 27ºC, 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 (17.6-58.6 inches) release 69,000-12,200,000 eggs. Larvae of king mackerel have been found in waters with temperatures between 26-31ºC (79-88ºF). This larval developmental stage has a short duration. King mackerel can grow up to 0.54-1.33 mm (0.02-0.05 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, and 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 operation 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 2020 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 2020 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 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. From 2014 through 2018, an annual average of 683 or approximately 47% of the permitted vessels landed the species in the Mid-Atlantic or South Atlantic regions (**Table 3.3.1**).

Table 3.3.1. Number and percent of permitted vessels with king mackerel landings in the Mid- Atlantic or South Atlantic Regions, 2014-2018.

Year	Number of vessels		Percent of vessels
	With king mackerel permit	With king mackerel landings	
2014	1,478	708	47.9%
2015	1,460	694	47.5%
2016	1,451	688	47.4%
2017	1,445	675	46.7%
2018	1,440	650	45.1%
Average	1,455	683	46.9%

Source: SERO for annual number of vessels with permits, 2014-2018, NMFS SERO Permits Office for the total number of permitted vessels and SEFSC Online Economic Query System, October 21, 2019, for the number of permitted vessels with king mackerel landings.

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 of the EEZ that extends from New York to the North Carolina/South Carolina border. The 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, Florida, 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 Miami-Dade County, Florida, are fish harvested from the Southern Zone.

This amendment 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 and trips that land king mackerel in the Southern Zone (**Tables 3.3.2** and **3.3.3**). From 2014 through 2018, average landings in pounds gutted weight (lbs gw) of king mackerel per trip in Florida did not vary greatly, from 195 lbs gw to 211 lbs gw; however, in South Carolina and Georgia king mackerel landings increased from 178 lbs gw per trip in 2014 to 275 lbs gw in 2018 (**Table 3.3.4**).

Table 3.3.2. Reported landings (lbs gw) of Atlantic king mackerel from the Southern Zone by state, 2014-2018.

Year	FL	SC and GA	Total	Percent FL
2014	1,553,809	17,265	1,571,074	98.9%
2015	1,641,709	14,460	1,656,169	99.1%
2016	1,919,225	30,452	1,949,677	98.4%
2017	2,152,761	37,136	2,189,897	98.3%
2018	1,864,502	30,492	1,894,994	98.4%
Average	1,826,401	25,961	1,852,362	98.6%

Source: SEFSC Socioeconomic Panel Data (Version 9) accessed by the SEFSC Online Economic Query System (October 21, 2019).

Table 3.3.3. Number of trips that landed Atlantic king mackerel from the Southern Zone reported by permitted vessels, 2014-2018.

Year	FL	SC and GA	Total	Percent FL
2014	7,974	97	8,071	98.8%
2015	8,445	111	8,556	98.7%
2016	9,311	105	9,416	98.9%
2017	10,180	124	10,304	98.8%
2018	9,207	111	9,318	98.8%
Average	9,023	110	9,133	98.8%

Source: SEFSC Socioeconomic Panel Data (Version 9) accessed by the SEFSC Online Economic Query System (October 21, 2019).

Table 3.3.4. Average reported landings (lbs gw) of king mackerel per trip in Southern Zone, 2014-2018.

Year	FL	SC and GA	Total
2014	195	178	195
2015	194	130	194
2016	206	290	207
2017	211	299	213
2018	203	275	203
Average	202	234	202

Source: SEFSC Socioeconomic Panel Data (Version 9) accessed by the SEFSC Online Economic Query System (October 21, 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 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 Southern Zone is divided into three sub-zones: 1) from the NC/SC border to the Flagler County/Volusia County, Florida, line; 2) between the Flagler/Volusia county, Florida, and Volusia/Brevard county, Florida, lines; and 3) between the Volusia/Brevard county, Florida, and Miami-Dade/Monroe county, Florida, 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 Miami-Dade/Monroe lines from November 1 through March 31, and different trip limits in the sub-zone areas from April 1 through October31 (**Table 3.3.6**).

Table 3.3.5. Trip limits in the Southern Zone from May 11, 2017 to September 11, 2019.

Zone	Sub-Zone	March 1 – March 30	April 1 – End September	October 1 – End February
Southern: NC/SC border to Miami-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 the Southern Zone from January 1, 2014 through May 10, 2017.

Zone	Sub-Zone	April 1 – October 31	November 1 – March 31
Southern: NC/SC border to Miami-Dade/Monroe line	NC/SC border to Flagler/Volusia county line	3,500 lbs	3,500 lbs
	Between Flagler/Volusia & Volusia/Brevard county lines	3,500 lbs	Part of the Florida East Coast Subzone
	Between Volusia/Brevard & Miami-Dade/Monroe county lines	75 fish	Part of the Florida East Coast Subzone

Note: In the Florida East Coast Subzone, king mackerel in or from the EEZ could be possessed on board at any time or landed in a day from a vessel with a commercial permit from November 1 through the end of February in quantities not to exceed 50 fish. Beginning on March 1 and continuing through March 31-- if 70 % or more of the [Gulf group] Florida east coast subzone quota has been taken in quantities not to exceed 50 fish. If less than 70 % of the [Gulf group] Florida east coast subzone quota has been taken in quantities not to exceed 75 fish.

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

During the 5-year period from 2014 through 2018, all trips from South Carolina through Flagler County, Florida, landed less than 3,500 lbs of king mackerel. However, there were trips that landed over 3,500 lbs gw of king mackerel from Volusia through Miami-Dade counties, all those trips were in January and February.

This action would not change the trip limit in the first sub-zone (NC/SC border to Flagler/Volusia county, Florida, 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 County through Miami-Dade County.

Annual commercial landings of king mackerel from Volusia County through Miami-Dade County, Florida, ranged from approximately 1,534,000 lbs gw to 2,072,000 lbs gw and averaged 1,780,596 lbs gw from 2014 through 2018. Dockside revenues from those landings ranged from about $3,763,000 to $4,490,000 and averaged $4,163,005 (2018 dollars). The average dockside price during those five years was $2.35 per lbs gw (2018 dollars) and an annual average of 408 vessels took 8,825 commercial trips landing king mackerel. Average annual gross ex-vessel revenue from king mackerel landings represented approximately 89% of total dockside revenue from trips that landed the species from 2014 through 2018 (**Table 3.3.7** and **Table 3.3.8**).

According to Overstreet et al. (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.

Table 3.3.7. Number of vessels, number of trips, and landings by year for vessels that landed king mackerel from Volusia County through Miami-Dade County, FL, 2014-2018.

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)
2014	415	7,834	1,534,009	360,907	5,088	1,977,935	964,599
2015	421	8,313	1,625,037	268,221	3,816	1,378,822	1,022,453
2016	406	9,097	1,871,672	363,781	3,656	1,596,177	816,497
2017	397	9,930	2,072,388	349,340	3,212	1,433,318	917,656
2018	401	8,952	1,799,876	324,525	3,565	1,661,400	1,079,159
Average	408	8,825	1,780,596	333,355	3,867	1,609,530	960,073

Source: SEFSC Socioeconomic Panel Data (Version 9) accessed by the SEFSC Online Economic Query System (October 21, 2019).

Table 3.3.8. Number of vessels and annual gross revenue by year for vessels that landed king mackerel from Volusia County through Miami-Dade County, FL, 2014-2018 (2018 dollars)*.

Year	Number of vessels that caught king mackerel	Gross revenue from king mackerel	Gross revenue from 'other species' jointly caught with king mackerel	Gross revenue from 'other species' caught on SATL trips without king mackerel	Gross revenue from all species caught on Gulf trips	Total gross revenue	Average total gross revenue per vessel
2014	415	$3,853,171	$579,461	$3,435,020	$2,253,375	$10,599,052	$25,540
2015	421	$3,763,192	$418,601	$2,731,400	$2,274,152	$9,720,864	$23,090
2016	406	$4,360,836	$510,344	$2,807,670	$1,788,159	$10,088,615	$24,849
2017	397	$4,490,204	$569,168	$2,409,764	$1,960,907	$10,222,280	$25,749
2018	401	$4,347,622	$559,091	$2,753,144	$2,480,477	$10,487,257	$26,153
Average	408	$4,163,005	$527,333	$2,827,400	$2,151,414	$10,223,613	$25,076

Source: SEFSC Socioeconomic Panel Data (Version 9) accessed by the SEFSC Online Economic Query System (October 21, 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 (2018 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 king mackerel presented in **Table 3.3.7**.

Table 3.3.9. Average annual business activity (2014 through 2018) associated with the commercial harvest of king mackerel for vessels that landed king mackerel from Volusia County through Miami-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	$4,163	549	125	$41,417	$15,007	$21,315
All species harvested by vessels that landed king mackerel.	$10,224	1,348	307	$101,689	$36,847	$52,332

Source: Calculated by NMFS SERO using the model developed for and applied in NMFS (2017).
*Converted to 2018 dollars using the annual, not seasonally adjusted GDP implicit price deflator provided by the U.S. Bureau of Economic Analysis.

To convert reported weight (lbs gw) to the number of king mackerel, the average weight of a king mackerel was determined from the Trip Intercept Program (TIP) which is a survey of commercial fishers that records the weight and length of all fish harvested on a commercial trip. TIP data was provided from the Southeast Fisheries Science Center (SEFSC) on July 12, 2019. The TIP data containing king mackerel harvest were filtered so only data from the 2017/2018 and 2018/2019 fishing years remained since the trip limits were implemented in CMP Amendment 26 in May of 2017. The TIP data was also filtered to isolate Florida's east coast king mackerel data from Volusia to Miami-Dade counties. The recent TIP data results in a Southern Zone king mackerel average weight of 7.38 pounds lbs ww or 7.10 lbs gw (SERO LAPPS Larkin July 19, 2019). Consequently, a 50-fish limit translates to 355 lbs gw of king mackerel, a 75-fish limit to 533 lbs gw, a 100-fish limit to 710 lbs gw, and a 150-fish limit to 1,065 lbs gw.

From 2014 through 2018, an annual average of 24.6% of reported king mackerel trips landed over 355 lbs gw of the species (**Table 3.3.10**). Landings from those trips combined to produce 66% of all king mackerel landings in the 8-county area (from Volusia County through Miami-Dade County). Average landings for those trips with over 355 lbs was 537 lbs gw per trip. During that same 5-year period, an annual average of 5.6% of trips landed over 533 lbs gw of king mackerel and those trips averaged 732 lbs gw per trip (**Table 3.3.11**). Since October 1, 2017, the limit has been 50 fish (355 lbs gw) from October through January and then is either 50 or 75 fish (355 or 533 lbs gw) in February depending on the percentage of the Season 2 quota landed. However, from October through December 2017 there were 574 trips that landed over 355 lbs gw of king mackerel, and 505 of them were in December.

Table 3.3.10. Combined landings (lbs gw) and trips with over 355 lbs gw of king mackerel from Volusia County through Miami-Dade County, FL, 2014-2018.

Year	Landings (lbs gw) from trips over 355 lbs gw	Number of trips over 355 lbs gw	Percent of total landings from trips over 355 lbs gw	Percent of total trips over 355 lbs gw	Average landings (lbs gw) per trip for trips over 355 lbs gw
2014	1,183,492	2,014	77.2%	25.7%	588
2015	966,493	1,915	59.5%	23.0%	505
2016	1,409,862	2,536	75.3%	27.9%	556
2017	1,179,114	2,280	56.9%	23.0%	517
2018	1,101,008	2,110	61.2%	23.6%	522
Average	1,167,994	2,171	66.0%	24.6%	537

Source: SEFSC Socioeconomic Panel Data (Version 9) accessed by the SEFSC Online Economic Query System (October 21, 2019).

Table 3.3.11. Combined landings (lbs gw) and trips with over 533 lbs gw of king mackerel from Volusia County through Miami-Dade County, FL, 2014-2018.

Year	Landings (lbs gw) from trips over 533 lbs gw	Number of trips over 533 lbs gw	Percentage of total landings from trips over 533 lbs gw	Percentage of total trips over 533 lbs gw	Average landings (lbs gw) per trip for trips over 533 lbs gw
2014	467,433	622	30.47%	7.94%	752
2015	221,404	306	13.62%	3.68%	724
2016	477,351	651	25.50%	7.16%	733
2017	307,851	410	14.85%	4.13%	751
2018	304,410	434	16.91%	4.85%	701
Average	355,690	485	20.3%	5.6%	732

Source: SEFSC Socioeconomic Panel Data (Version 9) accessed by the SEFSC Online Economic Query System (October 21, 2019).

Monthly trips that land king mackerel from Volusia through Miami-Dade counties tend to peak in May and bottom out in October (**Figure 3.3.1**). May and December have the highest average number of trips that land over 355 lbs gw of the species (**Table 3.3.12**). In total, an annual average of 408 vessels landed king mackerel, for an average of approximately 22 trips per vessel.

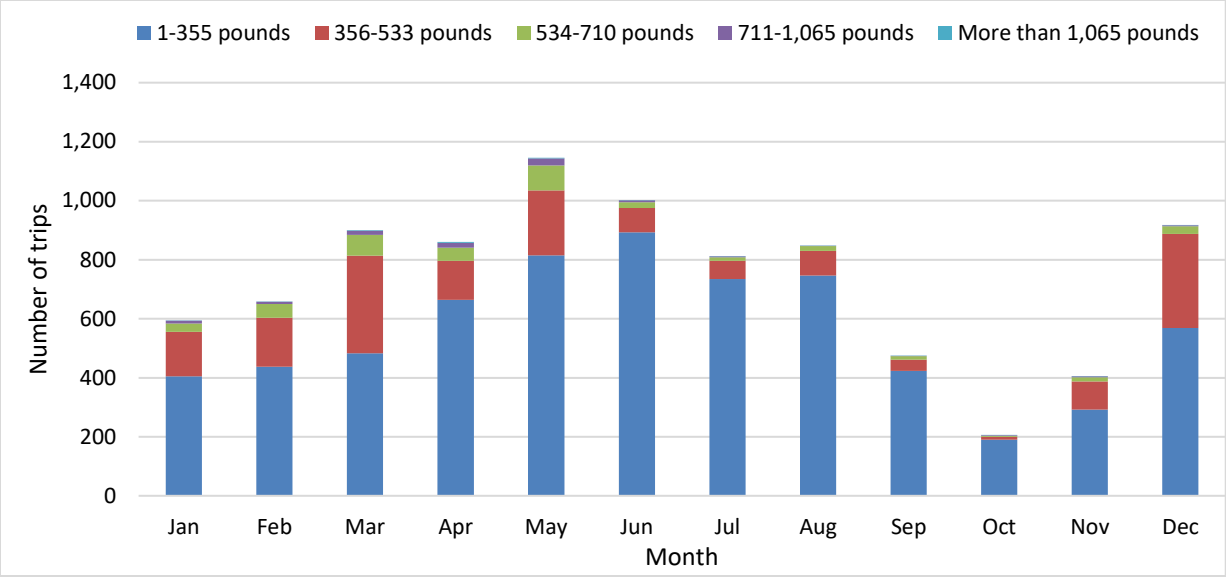

Figure 3.3.1. Average number of reported monthly trips that landed king mackerel from Volusia County through Miami-Dade County, FL, by lbs gw of king mackerel, 2014-2018.
Source: SEFSC Socioeconomic Panel Data (Version 9) accessed by the SEFSC Online Economic Query System (October 21, 2019).

Table 3.3.12. Average monthly number and percentage of reported trips by landings (lbs gw) of king mackerel from Volusia County through Miami-Dade County, FL, 2014-2018.

Month	Trips landing 1-355 lbs gw	Trips landing 356-533 lbs gw	Trips landing over 533 lbs gw	Percentage of trips landing 1-355 lbs gw	Percentage of trips landing 356-533 lbs gw	Percentage of trips landing over 533 lbs gw
Jan	405	151	39	68.2%	25.3%	6.5%
Feb	438	165	56	66.5%	25.1%	8.4%
Mar	483	330	87	53.7%	36.7%	9.7%
Apr	665	132	64	77.3%	15.3%	7.4%
May	815	220	111	71.1%	19.2%	9.7%
Jun	893	82	27	89.1%	8.1%	2.7%
Jul	735	61	16	90.5%	7.5%	1.9%
Aug	746	84	18	88.0%	9.9%	2.1%
Sep	423	39	13	89.2%	8.2%	2.7%
Oct	191	9	6	92.7%	4.5%	2.8%
Nov	293	95	19	72.0%	23.4%	4.6%
Dec	568	319	31	61.9%	34.7%	3.3%

Source: SEFSC Socioeconomic Panel Data (Version 9) accessed by the SEFSC Online Economic Query System (October 21, 2019).

From 2014 through 2018, an average of 2,782 trips landed king mackerel in the eight Florida counties from October through February. Sixty-eight percent of the trips landed no more than 355 lbs gw (**Table 3.3.13**).

Table 3.3.13. Average number and percentage of reported trips that landed king mackerel in Volusia County through Miami-Dade County, FL, from October through February by pounds of king mackerel, 2014-2018.

	Trips landing 1-355 lbs gw	Trips landing 356-533 lbs gw	Trips landing 534-710 lbs gw	Trips landing 711-1,065 lbs gw	Trips landing over 1,065 lbs gw	Total trips
Average number of trips	1,894	739	119	26	4	2,782
Percent of total trips	68.1%	26.5%	4.3%	0.9%	0.2%	100.0%

Source: SEFSC Socioeconomic Panel Data (Version 9) accessed by the SEFSC Online Economic Query System (October 21, 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.

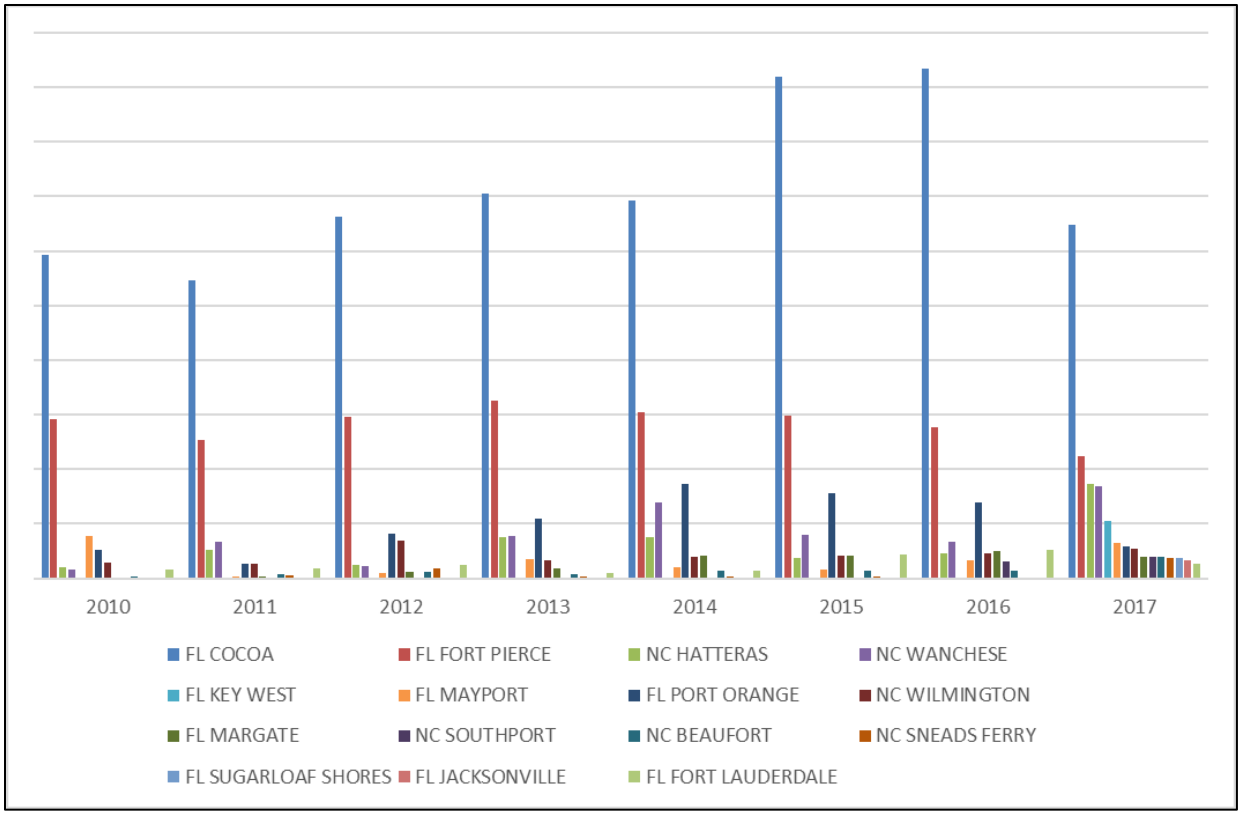

Figure 3.4.1. Sixteen South Atlantic communities ranked by 2017 value (US$) regional quotient (RQ) of king mackerel based on dealer landings.
Source: SERO Community ALS 2017.
Note: The actual RQ values (y-axis) are omitted from the figure to maintain confidentiality.

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.

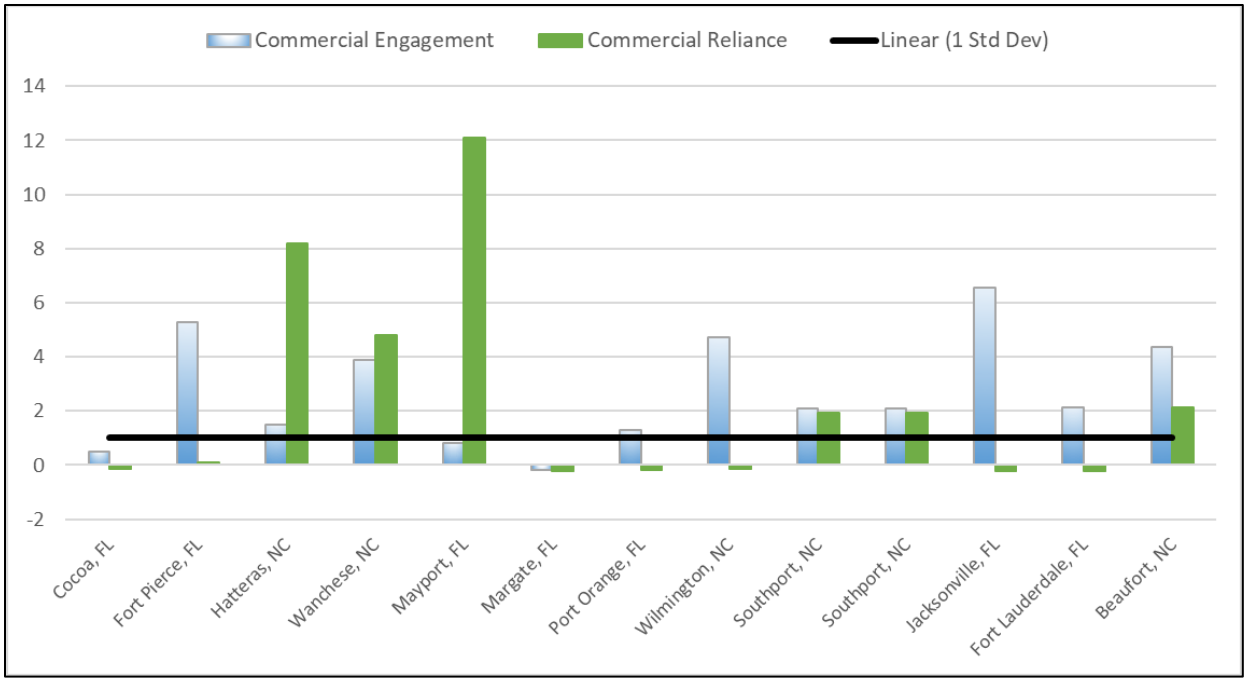

Figure 3.4.2. Commercial fishing engagement and reliance for South Atlantic communities with the top regional quotients for king mackerel.
Source: Southeast Regional Office, Social Indicator Database 2018.

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.

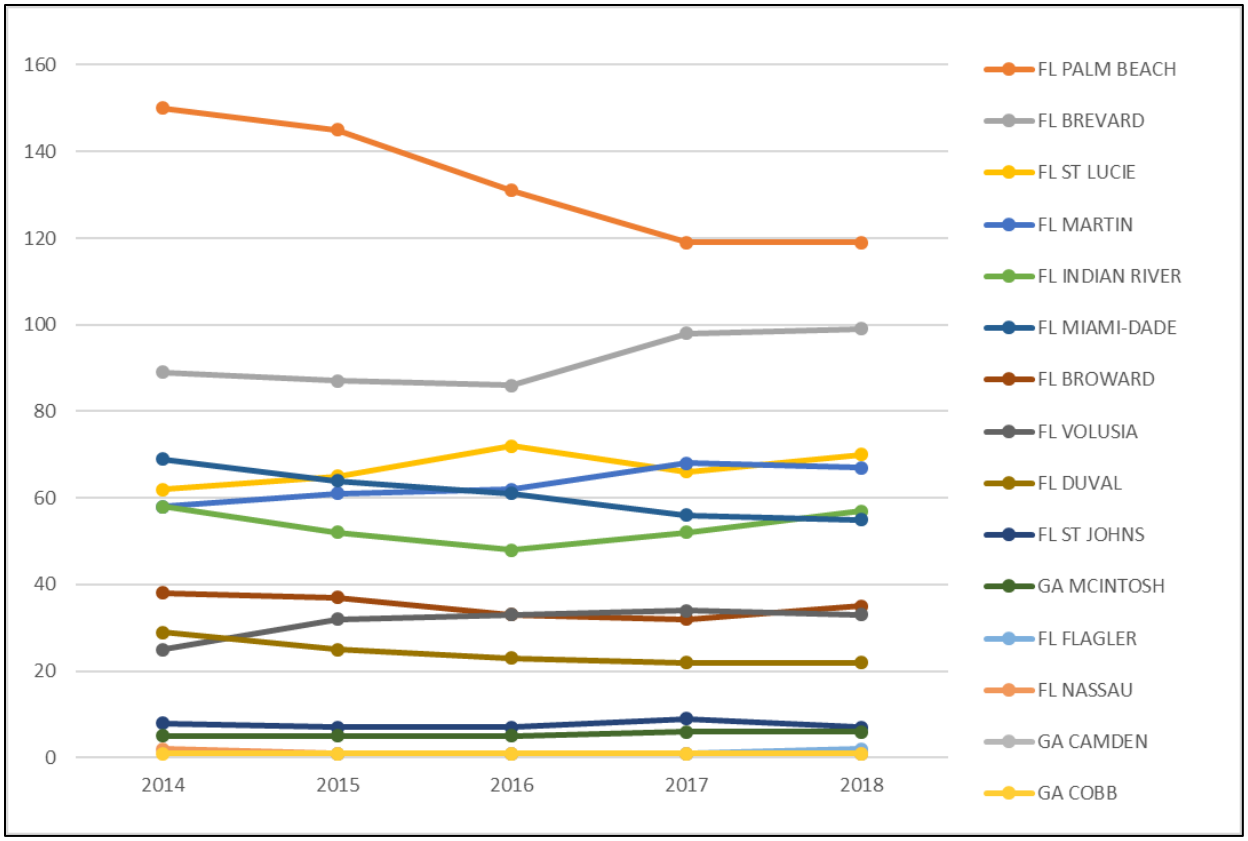

Figure 3.4.3. Commercial king mackerel permits for Florida and Georgia counties 2014-2018.
Source: Southeast Regional Office, Permits Database 2019.

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**).

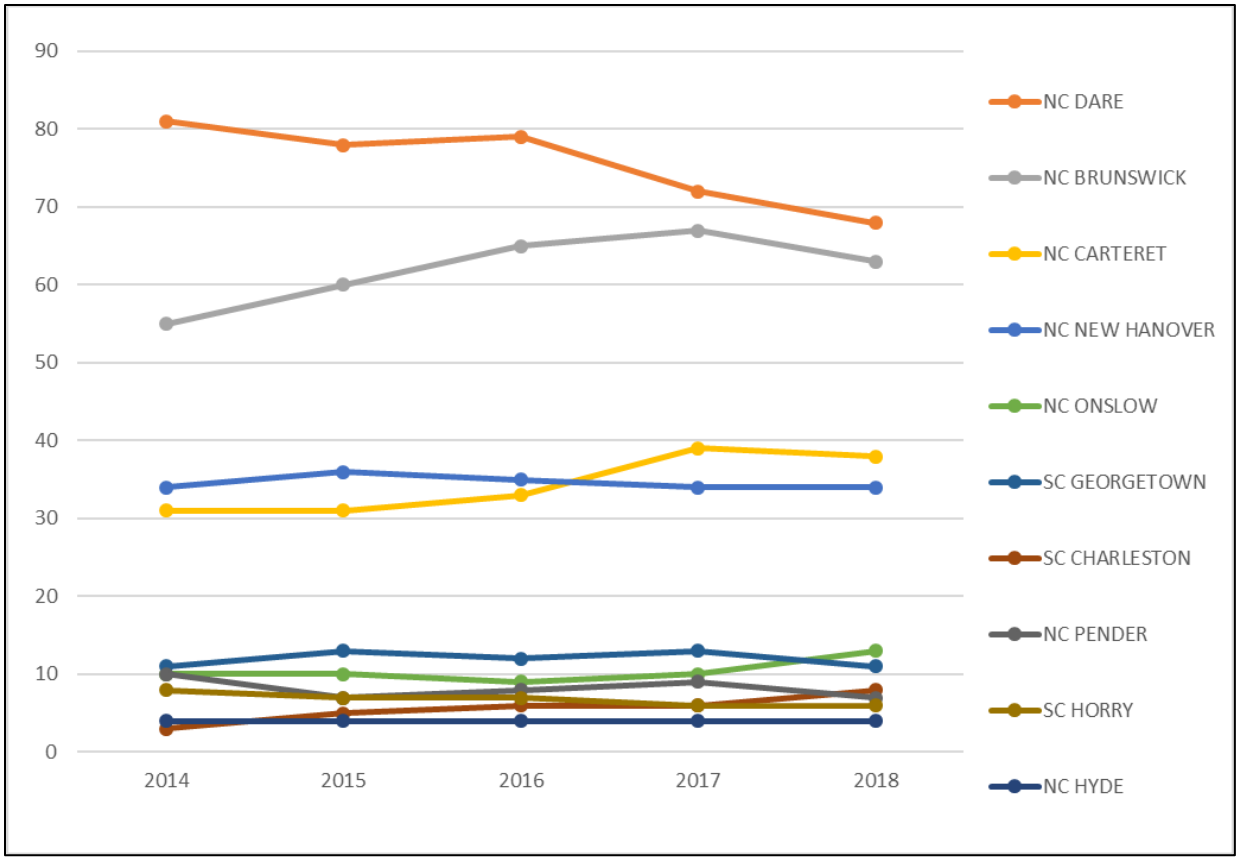

Figure 3.4.4. Commercial king mackerel permits for North Carolina and South Carolina counties 2014-2018.
Source: Southeast Regional Office, Permits Database 2019.

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**).

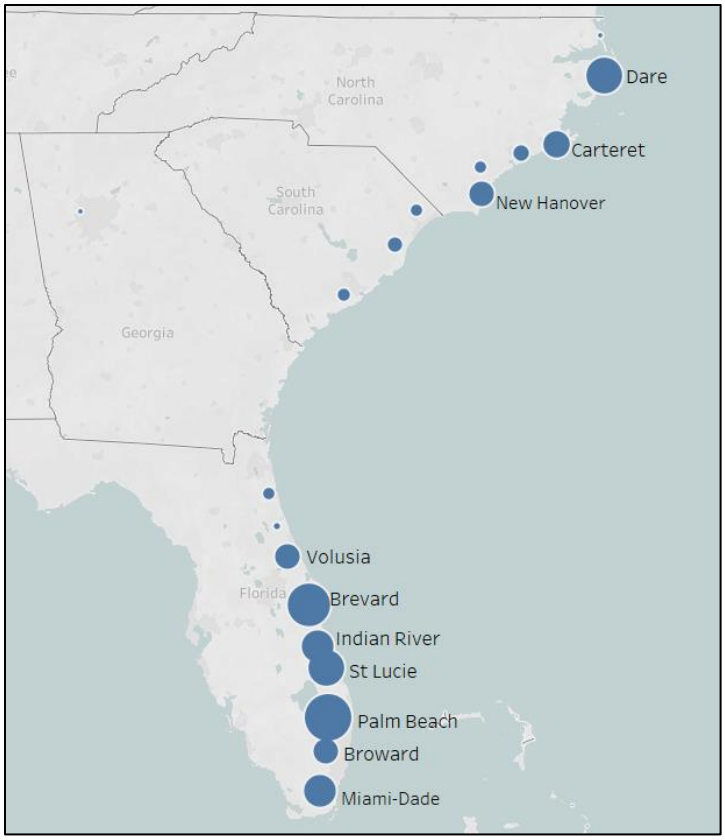

Figure 3.4.5. Commercial king mackerel permits for South Atlantic counties in 2018, with the top ten counties with the largest numbers of permits noted.
Source: Southeast Regional Office, Permits Database 2019.

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 are all 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.

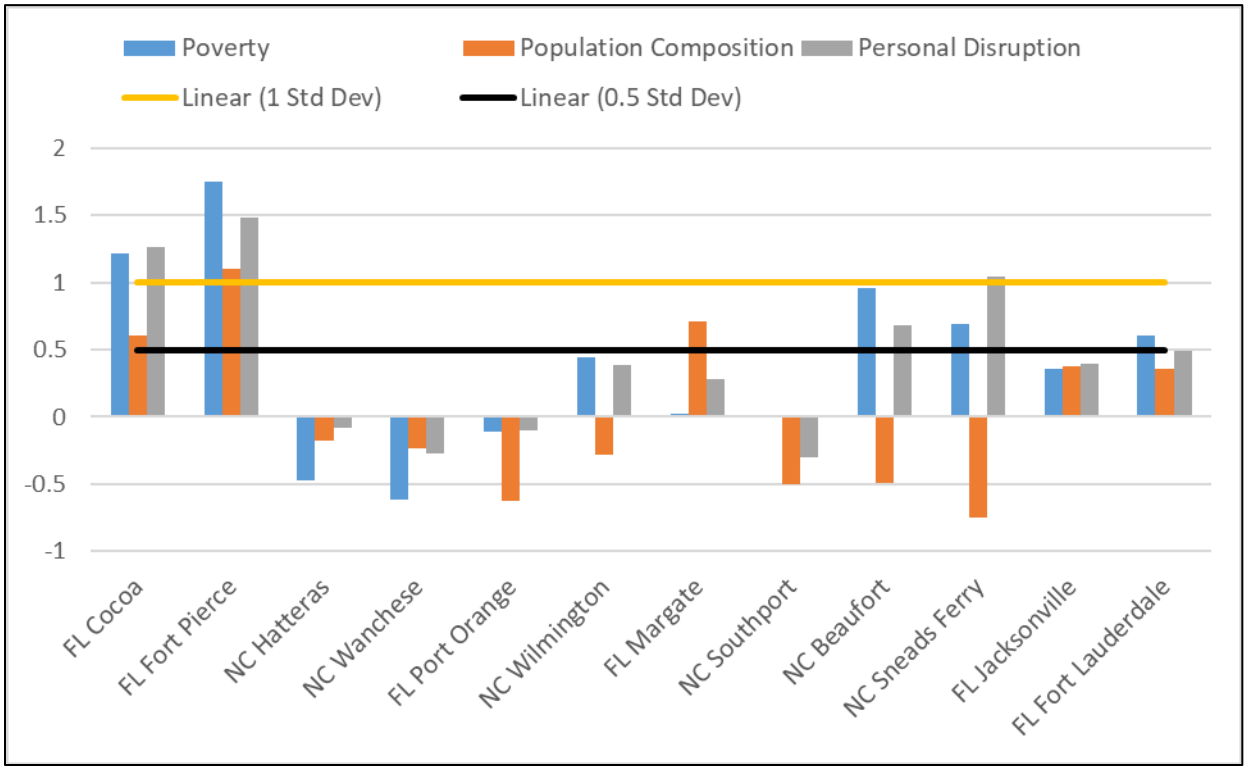

Figure 3.4.6. Social vulnerability indices for fifteen South Atlantic communities with the top regional quotients for king mackerel.
Source: SERO, Social Indicator Database (ACS 2017) 2018.

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. These waters extend to 200 nautical miles offshore from the seaward boundaries of west Florida to Key West, Alabama, Mississippi, Louisiana, and Texas, and those boundaries have been defined by law. 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. Non-voting members include representatives of the U.S. Fish and Wildlife Service (USFWS), U.S. Coast Guard (USCG), and Gulf States Marine Fisheries Commission (GSMFC).

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

The states are also involved through the Gulf 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. Increase 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 effective on May 11, 2017, and were implemented through the final rule for Amendment 26 to the Fishery Management Plan for Coastal Migratory Pelagic (CMP) Resources in the Gulf of Mexico and Atlantic Region (CMP FMP) (GMFMC and SAMFC 2016) (82 FR 17387; April 11, 2017). An emergency rule implemented a 75-fish trip limit during Season 2 (October 2019 through February 2020) (84 FR 51435; September 30, 2019). Unless modified via Framework Amendment 8 to the CMP FMP (Framework Amendment 8), the commercial trip limit will revert back to 50 fish during Season 2 and if less than 70% of the Season 2 quota has been landed the trip limit adjusts to 75-fish after February 29 (Alternative 1). The actions in Framework Amendment 8 would only modify the Season 2 trip limits south of the Flagler/Volusia boundary (29º25'N) to the Miami-Dade/Monroe boundary (25º20'24"N) (**Table 4.1.1**.).

Alternatives*

1. The commercial trip limits for Atlantic king mackerel south of the Flagler/Volusia line (29°25'N) to the Miami-Dade/Monroe line (25°20'24"N) : 75 fish for October 2019 – February 29, 2020, via the emergency rule. After February 29, 2020:
   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 (29°25'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 (29°25'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 2:
   South of the Flagler/Volusia line (29°25'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.

5. Adjust the commercial trip limits for Atlantic king mackerel in the Atlantic Southern Zone for Season 2:
South of the Flagler/Volusia line (29°25'N) to the Volusia/Brevard line (28°47.8'N):
***October 1 – end of February (Season 2):* 100 fish**

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

Table 4.1.1 Commercial king mackerel trip limits proposed in Alternative 1 through Alternative 5.

	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) *(Emergency Rule)*	50 *(75)*	50 *(75)*	75 *(75)*
Alternative 2	75	75	100
Alternative 3	100	100	150
Alternative 4	150	150	175
Alternative 5	100	100 (no step up)	100 (no step up)

Prior to Amendment 26, in the EEZ off the east coast of Florida, from November 1 through March 31, the area between the Flagler/Volusia county boundary to the Miami-Dade/Monroe county boundary was part of the Florida East Coast Subzone.[3] In the area from the Volusia/Brevard county boundary to the Miami-Dade/Monroe county boundary, 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 2019 South Atlantic Fishery Management Council (South Atlantic Council) meeting showed that, since the implementation of Amendment 26, the commercial king mackerel Season 2 quota has not been harvested. Comments from commercial king mackerel fishermen at the June 2019 South Atlantic Council meeting indicated the current Season 2 commercial trip limit of 50 fish in the Southern Zone was preventing them from fully utilizing the available resource, and this lower trip limit during Season 2 prevented fishermen from being able to carry crew or make profitable trips. The South Atlantic Council requested an emergency rule and the development of Framework Amendment 8 to adjust the trip limits in Season 2 to allow fishermen to make profitable trips throughout Season 2.

The action in this framework amendment only modifies the trip limit in the EEZ in the Southern Zone during Season 2 and this action is not expected to have a substantial impact on overall future landings. Atlantic king mackerel is managed under an annual catch limit (ACL) for the Northern and Southern zones, divided into a quota for each zone. Trip limits prevent catch from exceeding the ACL. Generally, trip limits slow the rate of harvest and may reduce the number of regulatory discards that would occur following an in-season closure. In the past, trip limits have been used to manage the king mackerel stock and the Season 2 quota has not been reached.

[3] In the Florida East Coast Subzone, king mackerel in or from the EEZ could be possessed on board at any time or landed in a day from a vessel with a commercial permit from November 1 through the end of February in quantities not to exceed 50 fish. Beginning on March 1 and continuing through March 31-- if 70 % or more of the [Gulf group] Florida east coast subzone quota has been taken in quantities not to exceed 50 fish. If less than 70 % of the [Gulf group] Florida east coast subzone quota has been taken in quantities not to exceed 75 fish.

Because **Alternative 1 (No Action)** (after the expiration of the emergency rule) would not increase the trip limit, it could be expected to have the greatest biological benefit to the stock, followed by **Alternative 2**, **Preferred Alternative 5, Alternative 3** and **Alternative 4**, which would each increase the trip limits. However, ACLs are in place to prevent overfishing, and accountability measures (AM) are in place to take action if ACLs are exceeded. Regulatory discards could increase if the fishing season closes early, constituting a negative biological effect. Specifying commercial trip limits would not alter the way the fishery is conducted and as such, would not be expected to have any impact on essential fish habitat, habitat areas of particular concern, protected species or bycatch. See Appendix B for a discussion of this action and the Endangered Species Act.

Predicted future landings based on landings after May 2017 were used to analyze the impacts of the proposed alternatives (**Table 4.1.2**). 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, based on data collected by the Southeast Fisheries Science Center (SEFSC) Trip Intercept Program.

Table 4.1.2 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 fishermen that harvested 26 to 75 king mackerel would 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 would now catch the full proposed trip limits of 75, 100, or 150 mackerel. It is expected that what actually happens in the Atlantic king mackerel portion of the CMP fishery would be between the low and high methods. The detailed analysis can be found in **Appendix D**.

Based on this analysis, under **Alternative 1 (No Action)** after the expiration of the emergency rule, the Atlantic king mackerel component of the CMP fishery in the Southern Zone would not reach the 70% of the quota by January 31 and the trip limit would increase for the month of February (**Table 4.1.3**). Under this scenario, the quota would 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). The trip limit under **Preferred Alternative 5** would not increase when 70% of the Season 2 quota was met, instead the 100-fish trip limit would remain throughout Season 2. With both the low landings scenario, landings of Southern Zone Atlantic king mackerel would not be expected to reach the Season 2 quota by the end of February. Under the high landings scenario, the landings would reach the quota by January 23.

Table 4.1.3. 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 the end of 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) [4]	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)	Feb 22
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)	Jan 23
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)	Feb 7
	High	Yes (Dec 11)	Dec 23
Alternative 5 (100-fish trip limit October 1 through end of February; no step up)	Low	n/a	No
	High	n/a	Jan 23

Previously, the South Atlantic Council developed Amendment 26 and Framework Amendment 6 to the CMP FMP (Framework Amendment 6) to address similar concerns with

[4] The analysis is based on trip limits specified under CMP Amendment 26, not the emergency rule. Additionally, the king mackerel emergency rule was implemented because the Season 2 quotas had not been made in recent years, resulting in a loss of economic opportunity for fishermen. Based on historical catch, the king mackerel emergency rule is unlikely to result in an early closure or exceeding the quota.

trip limits for Atlantic king mackerel. The emergency rule also addressed these concerns. Amendment 26, implemented in May 2017, specified trip limits for Atlantic king mackerel in the Southern Zone and established a carry-over provision, where unused quota in Season 1 for Atlantic king mackerel in the Southern Zone would carry over to Season 2. The final rule for Framework Amendment 6 to the CMP FMP (84 FR 47902; September 26, 2019) addressed concerns related to low trips limits in Season 1 (March 1 through September 30) in the EEZ off the east coast of Florida from the Flagler/Volusia county boundary to the Volusia/Brevard county boundary (Volusia County). The alternatives explored in Framework Amendment 8 would need to consider the quota that may be carried over between Season 1 and Season 2. Based on limited analysis of logbook data, after the implementation of Amendment 26 and Framework Amendment 6, the Season 1 landings are predicted to increase by 6.1%. Applying this predicted increase in landings to the 2018 and 2019 Season 1 landings results in an adjusted average pounds under the quota of 662,280 pounds (lbs). This was added to the Season 2 quota of 1,446,848 lbs to generate a predicted quota of 2,109,128 lbs (**Appendix D**).

Using the low landings scenarios described in Appendix D, **Alternative 1 (No Action)**, **Alternative 2**, **Alternative 3** and **Alternative 4** would not be expected to reach 70% of the quota before February 1 and as such would result in trip limit increases for the month of February **(Table 4.1.4)**. None of these alternatives would be predicted to reach the overall quota. Under a low landings scenario, the overall quota would also not be met under **Preferred Alternative 5**. When analyzing the alternatives based on a high landings scenario, **Alternative 2** would still be expected to have a step up for the month of February but would result in the overall quota not being met. However, using the high method of analysis, under **Alternative 3** and **Alternative 4**, the trip limit would not increase for the month of the February due to reaching 70% of the quota before the end of January and the end of February, respectively. **Alternative 3** would not be expected to reach the overall quota but **Alternative 4** would be expected to reach the overall quota by January 23. **Preferred Alternative 5** would not implement a step up for the month of February but rather continue the 100 fish trip limit for all of Season 2. Under both a low and high landings scenario for **Preferred Alternative 5**, the quota would not be reached before the end of Season 2.

Table 4.1.4. 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 the end of February 28, includes predicted carry-over quota from Season 1.

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)[5]	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	No	No
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 (January 26)	No
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	No	No
	High	Yes (December 24)	January 23
Alternative 5 (100-fish trip limit October 1 through end of February; no step up)	Low	n/a	No
	High	n/a	No

[a]*Analysis for trip limits under CMP Amendment 26, not the emergency rule.*

4.1.2 Economic Effects

This action concerns fishing in the Southern Zone from October through February only. Recent Trip Interview Program data from the SEFSC indicates the average weight of a commercially landed king mackerel is estimated to be 7.39 lbs whole weight and 7.10 lbs gutted

[5] The analysis is based on trip limits specified under CMP Amendment 26, not the emergency rule. Additionally, the king mackerel emergency rule was implemented because the Season 2 quotas had not been made in recent years, resulting in a loss of economic opportunity for fishermen. Based on historical catch, the king mackerel emergency rule is unlikely to result in an early closure.

weight (Appendix D). Consequently, a 50-fish limit translates to 355 lbs gw of king mackerel, a 75-fish limit to 533 lbs gw, and so forth.

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 lengthening of seasons. Given the ACL for king mackerel restricts maximum harvest to sustainable levels, the alternative with the largest trip limit would be expected to result in the smallest number of trips to land the same amount of king mackerel and would have the lowest associated trip costs; however, that is dependent on the carrying capacity of permitted vessels and other factors.

Alternative 1 (No Action), after the expiration of the emergency rule, would retain the trip limits implemented via Amendment 26 for Atlantic king mackerel in the Southern Zone during Season 2 and, consequently, have no additional beneficial or adverse economic effects. The trip limit specified in **Alternative 4** would allow for the largest increases in Atlantic king mackerel landings, dockside revenues, and economic impacts. However, **Alternative 4** could result in an early closure with or without carryover of quota from Season 1 to Season 2. Without carryover, **Alternative 4** could close the season as early as December and current economic benefits from the resource in January and February would be eliminated.

Preferred Alternative 5 and **Alternative 3** would allow for the largest increases in dockside revenue and associated economic impacts without an early closure if there is carryover of quota. Without a quota carryover, **Preferred Alternative 5** and **Alternative 3** would allow for the second largest increase in dockside revenue and associated economic impacts, but the season could close in January.

Alternative 2 would allow for the smallest increases in dockside revenue and associated economic impacts with or without a carryover. If there is no carryover, the season could close before the end of February.

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), after the expiration of the emergency rule,** would not revise the trip limit system implemented via Amendment 26 for Atlantic king mackerel in 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**, **Alternative 4**, and **Preferred Alternative 5** 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 Council's Mackerel Cobia Advisory Panel, have indicated that **Alternative 1 (No Action), after the expiration of the emergency rule,** 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**, **Alternative 4**, and **Preferred Alternative 5**. Additionally, the higher trip limits proposed in **Alternative 2**, **Alternative 3**, **Alternative 4**, and **Preferred Alternative 5**, may result in a lower market price for king mackerel and have an overall negative effect on coastal communities. This would 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**, **Alternative 4**, and **Preferred Alternative 5** 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), after the expiration of the emergency rule**. 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 the 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.

Alternative 2, **Alternative 3**, and **Alternative 4**, propose a higher potential increase in the trip limit starting February 1 if less than 70% of the ACL has been caught. This step-up would help ensure that the full commercial king mackerel ACL has an opportunity to be caught and that all associated social benefits are realized. Alternatively, **Preferred Alternative 5** does not include a step-up during the month of February, which may help to ensure that harvest of Southern Zone Atlantic king mackerel does not close before the end of the fishing year (the end of February).

4.1.4 Administrative Effects

Modifying the commercial trip limit for king mackerel through **Alternative 2 – Preferred Alternative 5** would not have direct impacts on the administrative environment, outside of the requisite public notices. In general, the higher the trip limit, the more likely the ACL would be met and the more likely an AM would be triggered. However, given recent landings, it is unlikely that increasing the trip limit would result in the ACL being met, and thus, the administrative effects are minimal and similar across the alternatives. **Alternatives 2-Alternative 4** have step-ups in trip limits when certain percentages of the quota have been met. This step-up trip limit adds another layer of administrative burden associated with monitoring the quota and rulemaking. **Preferred Alternative 5** does not include a step-up. The administrative impacts associated with the alternatives would be associated with rulemaking, outreach, and enforcement.

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

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

5.1.1 Mackerel Cobia Advisory Panel (MCAP) Comments and Recommendations

April 2019 Meeting

During their April 2019 meeting, in addition to recommending an emergency rule be used to address trip limits, the MCAP made the following comments relative to the commercial king mackerel trip limit and development of Framework Amendment 8 to the Fishery Management Plan for Coastal Migratory Pelagic (CMP) Resources of the Gulf of Mexico and Atlantic Regions (Framework Amendment 8):

- The king mackerel portion of the CMP fishery is incredibly important to fishermen in Florida and increasing the commercial trip limit as soon as possible is vital for the sustainability of their businesses.
    - With a 50-fish trip limit, vessels are unable to carry crew. This is burdensome on fishermen and is preventing a new generation of fishermen from getting involved in the fishery.
- Commercial harvest of Atlantic king mackerel is well tracked and there is not much danger of going over the annual catch limit (ACL).
- All options suggested to the South Atlantic Fishery Management Council (South Atlantic Council) during public comment should be considered during development of Framework Amendment 8.

Alternatives*

1. The commercial trip limits for Atlantic king mackerel south of the Flagler/Volusia line (29°25'N) to the Miami-Dade/Monroe line (25°20'24"N) : 75 fish for October 2019 – February 29, 2020, via the emergency rule. After February 29, 2020:
    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 (29°25'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 (29°25'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 2:
    South of the Flagler/Volusia line (29°25'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.

5. Adjust the commercial trip limits for Atlantic king mackerel in the Atlantic Southern Zone for Season 2:
South of the Flagler/Volusia line (29°25'N) to the Volusia/Brevard line (28°47.8'N):
***October 1 – end of February (Season 2):* 100 fish**

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

- A trip limit of 100-fish was suggested for Atlantic king mackerel in the Southern Zone for Season 2.
    - Possibly 100 fish or 1,250 pounds, whichever comes first.
    - This trip limit would help the smaller fish (if you are catching five-pound fish, you are going to be taking less fish to the dock with a 100-fish trip limit).
    - Not all fishermen would catch 100 fish every trip; however, when the opportunity presents itself, it would be nice for fishermen to be able to make the trip worthwhile. This is especially true when trips are limited due to weather.
- Unused quota from Season 1 rolls over into Season 2, creating an even higher quota available for harvest.

MOTION: RECOMMEND THAT THE COUNCIL CONTINUE WORK ON FRAMEWORK AMENDMENT 8 CONSIDERING PREVIOUS PUBLIC COMMENT ON POSSIBLE TRIP LIMITS.
MOTION APPROVED

October 2019 Meeting
During their October 2019 meeting, the MCAP reviewed a draft of Framework Amendment 8 and had the following comments:

- While not every trip would be able to land 100/150 fish, when given the opportunity (the fish are biting) it would allow fishermen to land enough fish to make the trip worthwhile as opposed to heading back to shore after a few hours.
- It would be important to balance the need for fishermen to bring in enough fish to make a trip economically viable, while at the same time not bringing so many fish to market that the price decreases.

MOTION: SELECT ALTERNATIVE 5 (100-FISH, NO STEP UP, SEASON 2) AS THE AP'S PREFERRED ALTERNATIVE.
MOTION APPROVED (11 IN FAVOR, 1 OPPOSED)

5.1.2 Public Comments and Recommendations

- Consider the time of year that fishermen can make a living. Consider how small businesses work and the limited amount of other fish available during the king mackerel seasons.
- More fish on the market would mean lower prices. As a result, fishermen will have to work twice as hard to make the same amount of money. This commenter did not support the emergency rule increase or an increase to 100 fish.
- The organization Directed Sustainable Fisheries supports the Preferred Alternative 5 as the proper business solution for the commercial fishermen who operate in the Florida east coast mixing zone constrained by a trip limit using numbers instead of a weighted quota utilized in other areas.

5.1.3 South Atlantic Council's Choice for Preferred Alternative

Trip limits are effective measures used to slow the rate of harvest to keep landings from exceeding the ACL and trigger accountability measures that would restrict or prohibit access to

the king mackerel resources. However, trip limits that are too restrictive can introduce economic inefficiencies by increasing the number of trips and associated trip costs to harvest the same overall poundage of fish.

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. Additionally, stakeholders indicated that current regulations do not provide a large enough trip limit to pay for trips during the winter months when poor weather may prevent fishermen from getting out on the water for days at a time. Therefore, the South Atlantic Council chose a trip limit system that would allow fishermen in the South Atlantic Southern Zone, south of the Volusia/Flagler county line, access to 100 fish during the month from October 1 through the end of February (**Preferred Alternative 5**). The proposed measures are expected to balance the need to provide for year-round access to the king mackerel resource with the need to provide a trip limit sufficient to make fishable days more profitable to offset the days when poor weather prevents fishing.

At their December 2019 meeting, the South Atlantic Council concluded that **Preferred Alternative 5** best met the purpose and need to increase the commercial trip limit for Atlantic king mackerel in the Atlantic Southern Zone during Season 2 (October 1 to the end of February) to provide a commercial trip limit sufficient to support fishing activity and revenue opportunity while constraining harvest to the ACL and providing for year-round access. The preferred alternative also best meets the objectives of the CMP FMP, as amended, while complying with the requirements of the Magnuson-Stevens Fishery Conservation and Management Act and other applicable law.

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	Industry 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 Jepson	SERO/SF	Social Sciences Branch Chief
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.

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.

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.

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 most likely 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. Refer to **Section 3.2.2** for additional information.

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 2020 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 2020 Marine Mammal Protection Act List of Fisheries. This classification indicates an occasional incidental mortality or serious injury of a marine mammal 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 action in this framework amendment is 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 action 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 action in this framework amendment is 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.

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 action 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 of Mexico (Gulf). 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 maximum sustainable yield (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 Miami-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 inches 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 Council 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 Miami-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, implemented September 2019, updated the Atlantic king mackerel commercial trip limits in the Atlantic Southern Zone during Season 1 (March 1 through September 30) of the fishing year.

Appendix D. Trip Limit Analysis for Action 1

Analysis of Increasing the Commercial King Mackerel Trip Limit for the Southern Zone in Season 2

A Framework Amendment is currently being drafted to increase the king mackerel commercial trip limit for hook-and-line gear in the Atlantic Southern Zone (Volusia County to Miami-Dade County) in Season 2 (October to February). The current trip limit for the Atlantic Southern Zone in Season 2 is 50 fish with an increase to 75 fish on February 1 if 70% of the quota has not been met. The current trip limit, in place after the expiration of the emergency rule that revised the October – February trip limits (84 FR 51435; September 30, 2019), was implemented on May 11, 2017, through the final rule for Amendment 26 Fishery Management Plan (FMP) for Coastal Migratory Pelagic (CMP) Resources in the Gulf of Mexico and Atlantic Region (Amendment 26).

Predicting Future Landings

The first step in evaluating the impact of a trip limit change is predicting future landings. The Framework Amendment is only considering changes to the trip limit in the Southern Zone (South of Flagler/Volusia line to the Miami-Dade/Monroe line) so the analysis only addressed this area. Additionally, the Framework Amendment is only considering changes to the trip limit during October to February, 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 in May of 2017, so only landings after this time were used to predict future landings. Predicted future landings came from the average monthly landings in the Southern Zone for 2017/2018 and 2018/2019 fishing years. Predicted future landings are shown in **Figure D.1** and the landings in numbers are provided in **Table D.1**.

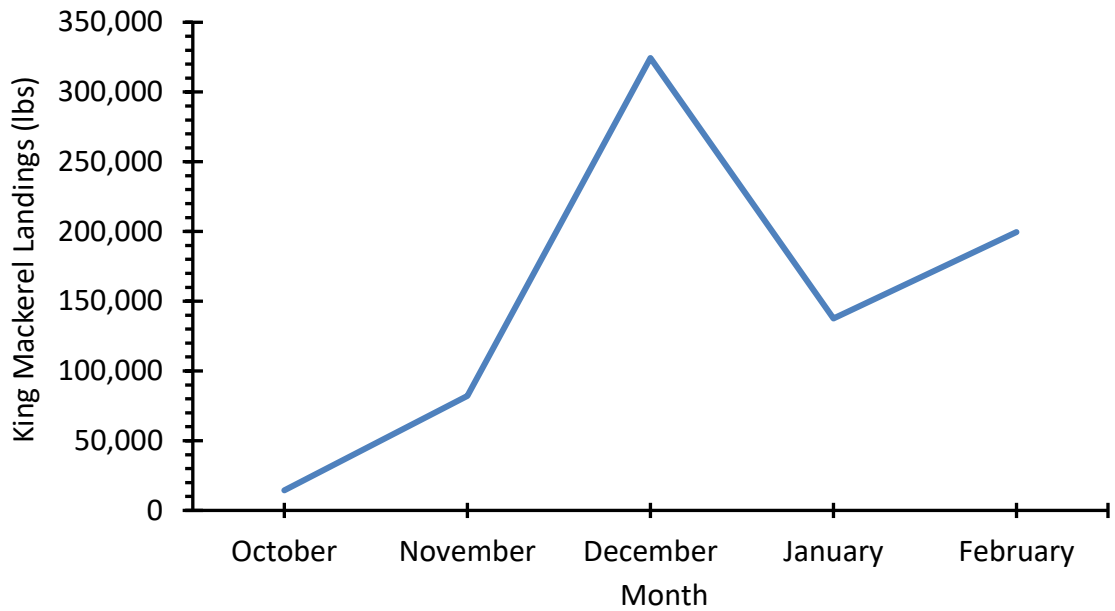

Figure D.1. Predicted Southern Zone Season 2 king mackerel commercial landings by month.

Table D.1. 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

Analyzing the change in landings from different trip limits

The current trip limit is in numbers of fish, but the 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 fishers that records the weight and length of all fish harvested on a commercial trip. TIP data were provided by the SEFSC on July 12, 2019. The TIP data were filtered to isolate Florida's east coast king mackerel data from Volusia to Miami-Dade counties since the Framework Amendment is proposing changing the trip limit only in this area. The TIP data were also filtered so only data after May of 2017 remained since the current trip limit was implemented in CMP Amendment 26 in May of 2017. The recent TIP data result in a Southern Zone king mackerel average weight of 7.38 pounds whole weight (lbs ww).

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. Landings per trip were converted to numbers of fish by dividing with the average weight of 7.38 pounds. Data from the Southern Zone from October 1 to January 31 from 2017, 2018, and 2019 were used because this is the location and time period when the Framework Amendment is proposing to increase the trip limit from 50 to 75, 100, or 150 fish. **Figure D.2** provides the landings in numbers of fish for different trip limit bins from Southern Zone season 2 king mackerel trips that harvested king mackerel with hook-and-line gear for 2017, 2018, and 2019.

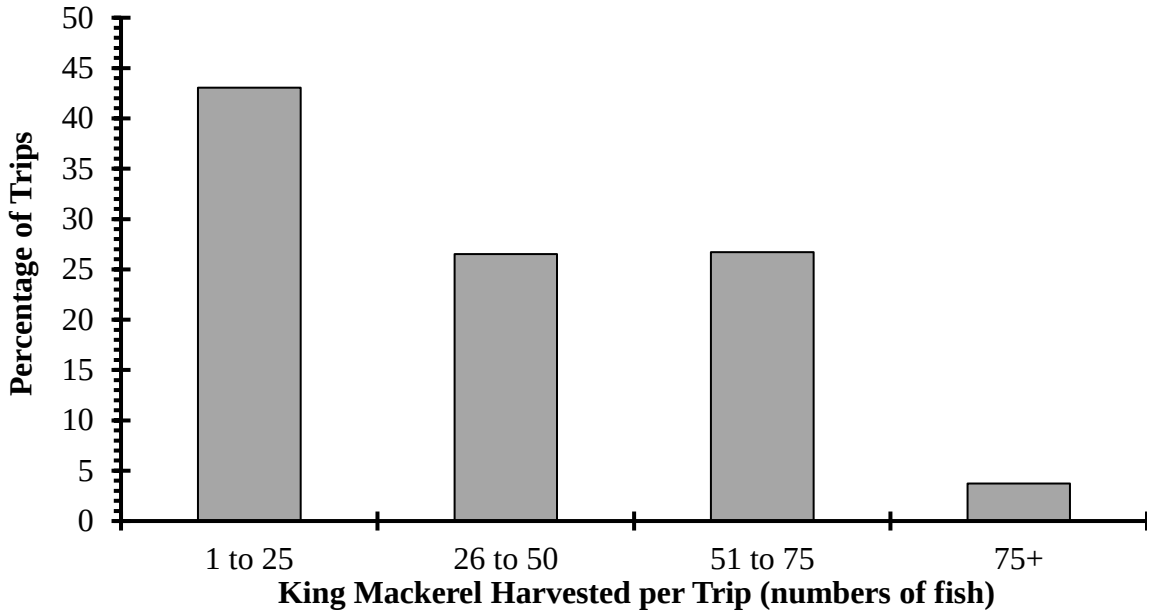

Figure D.2. Percent of Atlantic Southern Zone logbook-reported trips that commercially harvested king mackerel with hook-and-line gear for the October to January months in 2017, 2018, and 2019.

The impact of increasing the trip limit in the Southern Zone from October to January 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 26 to 75 king mackerel would now catch the new proposed trip limits in the Framework Action of 75, 100, or 150 mackerel. The second method, called the high method, assumes every logbook trip that harvested between 1 and 75 king mackerel would now catch the new proposed trip limits in the Framework Action of 75, 100, or 150 mackerel. The numbers of fish were then converted to pounds. The poundage from the two methods was done for October to January for both fishing years of 2017/2018 and 2018/2019. An average of the increase in pounds from 2017/2018 and 2018/2019 was calculated and provided in **Table D.2**. The calculated increase from the two methods was added to the predicted landings to provide the total landings generated from increasing the trip limit. **Table D.3** provides the calculated increase in landings from the trip limit combined with the predicted landings.

Table D.2. Calculated increase in landings (in pounds) from the two methods for analyzing the increase to a higher 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

*The current trip limit is 50 fish.

Table D.3. Calculated increase in landings (in pounds) from the two methods for analyzing the increase to a higher trip limit combined with the predicted landings.

Method	Month			
	October	November	December	January
75-Fish Trip Limit				
Method 1 (Low)	21,092	114,141	442,824	181,978
Method 2 (High)	77,665	240,994	594,751	266,003
100-Fish Trip Limit				
Method 1 (Low)	25,612	143,846	563,487	224,597
Method 2 (High)	103,310	318,577	774,269	340,541
150-Fish Trip Limit				
Method 1 (Low)	34,652	203,255	804,813	309,836
Method 2 (High)	154,601	473,741	1,133,306	489,617

Will 70% of the Season 2 quota be met before February 1?

The Framework Action proposes increasing the trip limit from October 1 to January 31 from 50 to 75, 100, or 150 fish, and also fixing the trip limit at 100 fish. If less than 70% of the Season 2 quota has been landed by February 1 then the trip limit would increase. If 70% or more of the Season 2 quota has been landed by February 1 then the trip limit would not increase. Using the predicted landings and impact of the increase in the trip limit described earlier it was determined if 70% of the Season 2 quota was reached. **Table D.4** provides a prediction table when 70% of the quota of 1,446,848 lbs would be reached.

Table D.4. Prediction table for king mackerel Atlantic Southern Zone Season 2.

Alternative	Trip Limit	70% of Season 2 Quota (1,012,794 lbs) Met before February 1?
1[a]	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)
5	100 Fish	Not Applicable, No Trip Limit Increase Option

*The table provides the results for determining if 70% of the quota is reached by February 1. Alternatives 1 is the current trip limit and no increase in predicted landings are expected. Alternatives 2 through 5 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

[a]*Analysis for trip limits under CMP Amendment 26, not the emergency rule.*

Will the Season 2 quota be met?

The Framework Action proposes increasing the trip limit from October 1 to January 31 from 50 to 75, 100, or 150 fish, and also fixing the trip limit at 100 fish. Additionally, if less than 70% of the Season 2 quota has been landed by February 1 then the trip limit would increase. If 70% or more of the Season 2 quota has been landed by February 1 then the trip limit would not increase. Using the predicted landings and impact of the increase in the trip limit described earlier it was determined if the trip limit was increased in February, and if the Season 2 quota (1,446,848 lbs) is predicted to be met. **Table D.5** provided prediction dates if the quota was met.

Table D.5. Prediction table for the king mackerel Atlantic Southern Zone Season 2.

Alternative	Trip Limit	70% of Season 2 Quota Met before February 1?	February Trip Limit	Quota Met before February 28?
1[a]	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
5	100 Fish Method 1 (Low)	No Trip Limit Increase	100	No
	100 Fish Method 2 (High)	No Trip Limit Increase	100	23-Jan

* The table provides the results for determining if 70% of the quota is reached by February 1, details about the February trip limit, and if the entire quota was reached before February 28. Alternative 1 is the current trip limit. Alternatives 2 through 5 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.

[a]*Analysis for trip limits under CMP Amendment 26, not the emergency rule.*

Quota Adjustment from Carryover

In May 2017, the final rule for Amendment 26 established a carryover prevision where any remaining pounds under the quota from Season 1 (March to September) would transfer the pounds to the Season 2 (October to February) quota. The first step is examining what amount of the quota from Season 1 was met since the implementation of Amendment 26 in May 2017. Table 6 provides details of the landings and quota of Season 1 for 2018 and 2019. In September 2019, Framework Amendment 6 increased the trip limits in Season 1. An analysis of the season 1 logbook landings was done where trips that met the 50-fish trip limit would now reach the 75-fish trip limit. The analysis predicts the Season 1 landings would increase by 6.1% due to the increase in the trip limits implemented in CMP Framework Amendment 6. Applying this predicted increase in landings (6.1%) to the 2018 and 2019 Season 1 landings (as shown in **Table D.6**) results in an adjusted average pounds under the quota of 662,280 lbs. These landings (662,280 lbs) were added to the Season 2 quota of 1,446,848 lbs to generate a new quota of 2,109,128 lbs.

Table D.6. Atlantic Southern Zone quota for Atlantic king mackerel commercial landings for Season 1.

Year	Season 1 Landings (lbs)	Season 1 Landings (lbs) Plus Predicted Framework 6 Landings	Season 1 Quota (lbs)	Landings Below Quota (lbs)
2018	1,435,545	1,523,113	2,401,152	878,039
2019	1,624,647	1,723,750	2,170,272	446,522
			Average 2018-2019	*662,280*

Will 70% of the Season 2 quota be met before February 1 with the quota adjustment?

Using the predicted landings and impact of the increase in the trip limit described earlier it was determined if 70% of the adjusted quota for Season 2 was reached. Table 7 provides a prediction table when 70% of the adjusted quota of 2,109,128 lbs will be reached. Only two options had the landings in Season 2 reach 70% of the adjusted quota before February 1st (**Table D.7**).

Table D.7. Prediction table for the king mackerel Atlantic Southern Zone Season 2.

Alternative	Trip Limit	70% of Season 2 Quota (1,476,390 lbs) Met before February 1?
1[a]	50 Fish	No
2	75 Fish Method 1 (Low)	No
	75 Fish Method 2 (High)	No
3	100 Fish Method 1 (Low)	No
	100 Fish Method 2 (High)	Yes (Jan 26)
4	150 Fish Method 1 (Low)	No
	150 Fish Method 2 (High)	Yes (Dec 24)
5	100 Fish	Not Applicable, No Trip Limit Increase Option

*The table provides the results of determining if 70% of the adjusted quota is reached by February 1. Alternatives 1 is the current trip limit and no increase in predicted landings are expected. Alternatives 2 through 5 used two different methods to account for the increase in trip limit. The adjusted quota is 2,109,128 lbs and 70% of it is 1,476,390 lbs.

[a]*Analysis for trip limits under CMP Amendment 26, not the emergency rule.*

Will the Season 2 quota be met with the quota adjustment?

The Framework Action proposes increasing the trip limit from October 1 to January 31 from 50 to 75, 100, or 150 fish, and also fixing the trip limit at 100 fish. Additionally, if less than 70% of the adjusted Season 2 quota has been landed by February 1 then the trip limit would increase. If 70% or more of the adjusted Season 2 quota has been landed by February 1 then the trip limit would not increase. Using the predicted landings and impact of the increase in the trip limit described earlier, it was determined if the trip limit was increased in February and if the adjusted Season 2 quota (2,109,128 lbs) is predicted to be met. **Table D.8** provided prediction dates if the adjusted quota was met.

Table D.8. Prediction table for the king mackerel Atlantic Southern Zone Season 2.

Alternative	Trip Limit	70% of Season 2 Quota Met before February 1?	February Trip Limit	Quota Met before February 28?
1[a]	50 Fish	No	75	No
2	75 Fish Method 1 (Low)	No	100	No
	75 Fish Method 2 (High)	No	100	No
3	100 Fish Method 1 (Low)	No	150	No
	100 Fish Method 2 (High)	Yes (Jan 26)	100	No
4	150 Fish Method 1 (Low)	No	150	No
	150 Fish Method 2 (High)	Yes (Dec 24)	150	23-Jan
5	100 Fish Method 1 (Low)	No Trip Limit Increase	100	No
	100 Fish Method 2 (High)	No Trip Limit Increase	100	No

*The table provides the results for determining if 70% of the adjusted quota is reached by February 1, details about the February trip limit, and if the entire quota was reached before February 28. Alternative 1 is the current trip limit. Alternatives 2 through 5 used two different methods to account for the increase in trip limit. The adjusted quota is 2,109,128 lbs and 70% of it is 1,476,390 lbs.

[a]*Analysis for trip limits under CMP Amendment 26, not the emergency rule.*

Appendix E. Regulatory Impact Review

Introduction

The National Marine Fisheries Service (NMFS) requires a Regulatory Impact Review (RIR) for all regulatory actions that are of public interest to satisfy the obligations under Executive Order (E.O.) 12866, as amended. In conjunction with the analysis of direct and indirect effects in the "Environmental Consequences" section of this Amendment, the RIR: 1) provides a comprehensive review of the level and incidence of impacts associated with a regulatory action; 2) provides a review of the problems and policy objectives prompting the regulatory proposals and an evaluation of the major alternatives which could be used to solve the problem; and 3) ensures that the regulatory agency systematically and comprehensively considers all available alternatives so that the public welfare can be enhanced in the most efficient and cost effective way. The RIR also serves as the basis for determining whether any proposed regulations are a "significant regulatory action" under certain criteria provided in Executive Order (E.O.) 12866. In addition, the RIR provides some information that may be used in conducting an analysis of the effects on small entities pursuant to the Regulatory Flexibility Act (RFA). This RIR analyzes the effects this regulatory action would be expected to have on the commercial sector of the South Atlantic king mackerel fishery.

Problems and Objectives

The problems and objectives for the proposed actions are presented in **Section 1.3** of this amendment and are incorporated herein by reference.

Description of Fisheries

A description of the commercial sector in the king mackerel fishery of the South Atlantic region is provided in **Section 3.3** of this amendment and is incorporated herein by reference.

Effects of Management Measures

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

A detailed analysis and discussion of the expected economic effects of the proposed action is included in **Section 4.1.2** and **Appendix F**. The following discussion summarizes the expected economic effects of the preferred South Atlantic Fishery Management Council (South Atlantic Council) alternative relative to the No Action alternative (i.e., the status quo).

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 lengthening of seasons. Given the ACL for king mackerel restricts maximum harvest to sustainable levels, the alternative with the largest trip limit would be expected to result in the smallest number of trips to land the same amount of king mackerel and would have the lowest associated trip costs; however, that is dependent on the carrying capacity of permitted vessels and other factors.

Preferred Alternative 5 would allow for the largest increases in dockside revenue and associated economic impacts without an early closure if there is carryover of quota. Without a quota carryover from Season 1 to Season 2, **Preferred Alternative 5** would allow for the second largest increase in dockside revenue and associated economic impacts, but the season could close in January. The increase in the trip limit to 100 fish (710 lbs gw) would increase January landings of king mackerel and corresponding dockside revenues, but would have little to no impact on February or October through December landings. Specifically, the proposed rule would increase annual landings of king mackerel by an estimated 128,582 lbs gw and corresponding dockside revenues by $299,596 (2018 dollars).

Public 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 to the private sector are discussed in the effects of management measures. Estimated public costs associated with this action include:

South Atlantic Council costs of document preparation, meetings, public hearings, and information dissemination	$18,900
NMFS administrative costs of document preparation, meetings, and review	$20,700
TOTAL[6]	$39,600

The estimate provided above does not include any law enforcement costs. Any enforcement duties associated with this action would be expected to be covered under routine enforcement costs rather than an expenditure of new funds. The South Atlantic Council and NMFS administrative costs directly attributable to this amendment and the rulemaking process would be incurred prior to the effective date of the final rule implementing this amendment.

[6] Calculations are inclusive of the estimated cost of total staff time dedicated to amendment development and applicable meeting costs (Scoping, Public Hearings, South Atlantic Fishery Management Council, Scientific and Statistical Committee, and Advisory Panel meetings).

Net Benefits of Regulatory Action

It is important to specify the time period being considered when evaluating benefits and costs. According to OMB's FAQs regarding Circular A-4,[7] "When choosing the appropriate time horizon for estimating costs and benefits, agencies should consider how long the regulation being analyzed is likely to have resulting effects. The time horizon begins when the regulatory action is implemented and ends when those effects are expected to cease. Ideally, analysis should include all future costs and benefits. Here as elsewhere, however, a 'rule of reason' is appropriate, and the agency should consider for how long it can reasonably predict the future and limit its analysis to this time period. Thus, if a regulation has no predetermined sunset provision, the agency will need to choose the endpoint of its analysis on the basis of a judgment about the foreseeable future."

For current purposes, the reasonably "foreseeable future" is considered to be the next 5 years. There are two primary reasons for considering the next 5 years the appropriate time period for evaluating the benefits and costs of this regulatory action rather than a longer (or shorter) time period. First, this regulatory action does not include a predetermined sunset provision. Second, based on the history of management in the king mackerel fishery in the South Atlantic, regulations such as those considered in this amendment are often revisited within 5 years or so.

The analyses of the changes in economic benefits indicates an annual increase of $299,596 (2018 dollars). In discounted terms and over a 5-year time period, the total net present value of this change in economic benefits is $1,228,403 using a 7% discount rate and $1,372,062 using a 3% discount rate (2018 dollars). The estimated non-discounted public costs resulting from the regulation are $39,600 (2018 dollars). The costs resulting from the amendment and the associated rulemaking process should not be discounted as they will be incurred prior to the effective date of the final rule.

Based on the quantified economic effects, this regulatory action is expected to increase net benefits to the Nation. Over a 5-year time period, the quantified net change in economic benefits is expected to be $1,188,803 using a 7% discount rate and $1,332,462 using a 3% discount rate (2018 dollars).

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.

[7] See p. 4 at https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/OMB/circulars/a004/a-4_FAQ.pdf

Based on the information provided above, these actions have been determined to not be economically significant for the purposes of E.O. 12866.

Appendix F. Regulatory Flexibility Analysis

Introduction

The purpose of the Regulatory Flexibility Act (RFA) is to establish a principle of regulatory issuance that agencies shall endeavor, consistent with the objectives of the rule and applicable statutes, to fit regulatory and informational requirements to the scale of businesses, organizations, and governmental jurisdictions subject to regulation. To achieve this principle, agencies are required to solicit and consider flexible regulatory proposals and to explain the rationale for their actions to assure that such proposals are given serious consideration. The RFA does not contain any decision criteria; instead, the purpose of the RFA is to inform the agency, as well as the public, of the expected economic impacts of the alternatives contained in the Fishery Management Plan (FMP) or amendment (including framework management measures and other regulatory actions) and to ensure that the agency considers alternatives that minimize the expected impacts while meeting the goals and objectives of the FMP and applicable statutes.

With certain exceptions, the RFA requires agencies to conduct a regulatory flexibility analysis for each proposed rule. The regulatory flexibility analysis is designed to assess the impacts various regulatory alternatives would have on small entities, including small businesses, and to determine ways to minimize those impacts. The following regulatory flexibility analysis was conducted to determine if the proposed rule would have a significant economic impact on a substantial number of small entities or not.

Statement of the need for, objective of, and legal basis for the proposed rule.

The primary purpose and need, issues, problems, and objectives of the proposed action are presented in **Section 1.2** and are incorporated herein by reference.

Identification of federal rules which may duplicate, overlap or conflict with the proposed rule.

No federal rules have been identified that duplicate, overlap or conflict with the proposed rule.

Description and estimate of the number of small entities to which the proposed action would apply

The rule concerns commercial fishing for king mackerel in federal waters of the South Atlantic and would directly apply to businesses in the commercial fishing industry (NAICS 11411). Any vessel that harvests king mackerel in the Gulf, mid-Atlantic, or South Atlantic Exclusive Economic Zone (EEZ) must have a valid limited-access federal king mackerel permit on board that vessel.

As of September 18, 2019, there are 1,427 vessels with a king mackerel permit (**Table F.1**). Approximately 72% of the king mackerel permits are held by entities residing in Florida.

Table F.1. Number and percentage of vessels with king mackerel permit by residence of permit holder.

State	Number	Percentage
AL	36	2.5%
GA	9	0.6%
FL	1,023	71.7%
MS	7	0.5%
LA	45	3.2%
NC	218	15.3%
NJ	12	0.8%
NY	5	0.4%
SC	25	1.8%
TX	35	2.5%
VA	3	0.2%
9 Others	9	0.6%
Total	**1,427**	**100.0%**

Source: NMFS Southeast Regional Office (SERO) Online List of Current Permit Holders as of September 18, 2019.

It is estimated that a total of 1,204 businesses operate the 1,427 permitted vessels. The individual businesses have from one to 16 of the permitted vessels (**Table F.2**). Approximately 89% of the 1,204 businesses have only one of the permitted vessels in their fleets, and collectively these businesses account for approximately 75% of the permitted vessels. Approximately 99% of the businesses have one to three of the permitted vessels in their individual fleets and collectively they account for approximately 93% of the 1,427 vessels.

Table F.2. Estimates of number and percentage of businesses and vessels by number of vessels with a king mackerel permit in each business's fleet.

Number of Vessels with Permits in Business's Fleet	Number Businesses	Number Vessels	Percentage Businesses	Percentage Vessels
1	1,066	1,066	88.5%	74.7%
2	107	214	8.9%	15.0%
3	13	39	1.1%	2.7%
4	7	28	0.6%	2.0%
5 to 7	7	46	0.6%	3.2%
8 to 15	3	34	0.2%	2.4%
Total	**1,204**	**1,427**	**100.0%**	**100.0%**

Source: NMFS SERO Online List of Current Permit Holders as of September 18, 2019.

The number of permitted vessels that land king mackerel annually in the South Atlantic region is substantially less than the number that is federally permitted to do so. From 2014 through 2018, for example, an annual average of 683 or approximately 47% of the permitted vessels landed the species (**Table F.3**). Those vessels collectively make an annual average of 10,719 trips that land king mackerel.

Table F.3. Number of permitted vessels, those that landed king mackerel, and percentage of permitted vessels with king mackerel landings in South Atlantic, 2014-2018.

Year	With King Mackerel Permit	With King Mackerel Landings in South Atlantic	Percentage with King Mackerel Landings in South Atlantic
2014	1,478	708	47.9%
2015	1,460	694	47.5%
2016	1,438	688	47.8%
2017	1,445	675	46.7%
2018	1,440	650	45.1%
Average	**1,452**	**683**	**47.0%**

Source: NMFS SERO for number of vessels with permit, 2013 – 2017, and Southeast Fisheries Science Center (SEFSC) Online Economic Query System, Version 11, for number of permitted vessels with king mackerel landings, September 18, 2019.

For RFA purposes only, NMFS has established a small business size standard for businesses, including their affiliated operations, whose primary industry is commercial fishing (see 50 CFR 200.2). A business primarily engaged in commercial fishing ((National Industry Coding System)NAICS code 11411) is classified as a small business if it is independently owned and operated, is not dominant in its field of operation (including its affiliates), and has combined annual receipts not in excess of $11 million for all its affiliated operations worldwide. Some of the vessels with a king mackerel permit also have a for-hire fishing permit, and the businesses with those vessels also operate in the charter fishing industry (NAICS 487210). It is presumed

here that all of the businesses with a federally permitted vessel that lands king mackerel from the South Atlantic are primarily engaged in commercial fishing.

Average total dockside revenue (2018 $) per permitted vessel that lands king mackerel in the South Atlantic region is substantially less than $11 million. From 2014 through 2018, the average permitted vessel with king mackerel landings had annual dockside revenue from all landings that was less than $30 thousand (**Table F.4**). However, there is considerable variation when evaluated by state. Average dockside revenue for a permitted vessel that lands king mackerel in South Carolina or Georgia is $84,317 (2018 $) as compared to $26,648 for a permitted vessel that lands king mackerel in Florida (**Table F.5**). From those figures, it is expected that businesses that land king mackerel annually in the South Atlantic are small.

Table F.4. Number of permitted vessels that land king mackerel in South Atlantic region, their combined total dockside revenue (2018 $) and average annual dockside revenue per vessel, 2014-2018.

Year	Total Dockside Revenue	Vessels	Average Dockside Revenue per Vessel
2014	$22,581,340	708	$31,895
2015	$19,476,636	694	$28,064
2016	$20,052,933	688	$29,147
2017	$20,606,412	675	$30,528
2018	$18,680,250	650	$28,739
Average	**$20,279,514**	**683**	**$29,674**

Source: SEFSC Online Economic Query System, Version 11, for nominal revenue, September 18, 2019, and BEA for GDP implicit price deflator, September 19, 2019.

Table F.5. Average annual dockside revenue (2018 $) per vessel, 2014- 2018.

Year	FL	NC	SC & GA[1]
2014	$28,249	$31,702	$100,001
2015	$25,714	$24,330	$82,425
2016	$25,938	$28,195	$94,347
2017	$27,380	$30,013	$77,403
2018	$25,957	$29,028	$67,408
Average	**$26,648**	**$28,653**	**$84,317**

Source: SEFSC Online Economic Query System, Version 11, for nominal revenues, September 18, 2019, and BEA for GDP implicit price deflator, September 19, 2019.
[1]Georgia combined with South Carolina to avoid disclosure of confidential information.

The relative importance of king mackerel to small businesses varies considerably across the states. King mackerel accounted for a third of annual dockside revenue for the average Florida vessel but less than 3% for the average Georgia/South Carolina vessel from 2014 through 2018 (**Table F.6**).

Table F.6. Percentage of average annual total dockside revenue from king mackerel landings by state, 2014-2018.

Year	FL	NC	SC & GA[1]
2014	28.6%	20.0%	1.8%
2015	29.8%	18.3%	1.3%
2016	35.2%	17.1%	3.1%
2017	35.5%	23.5%	3.2%
2018	36.5%	20.9%	3.5%
Average	**33.1%**	**19.9%**	**2.6%**

Source: SEFSC Online Economic Query System, Version 11, for nominal revenues, September 18, 2019.
[1]Georgia combined with South Carolina to avoid disclosure of confidential information.

This action is not expected to affect permitted vessels that land king mackerel north of Florida. Furthermore, it is not expected to affect landings north of the Flagler/Volusia county boundary or south of the Miami-Dade/Monroe county boundary. Consequently, the small businesses directly affected by this action are expected to land king mackerel in the 8-county area from Volusia through Miami-Dade counties: Volusia, Brevard, Indian River, Saint Lucie, Martin, Palm Beach, Broward and Miami-Dade.

The average 408 permitted vessels that land king mackerel in the 8-county area represent 59.7% of the average 683 vessels that land king mackerel annually in the South Atlantic. The 408 vessels make approximately 82% of the annual trips that land king mackerel in the South Atlantic (**Table F.7**). Those vessels also account for approximately 76% of the king mackerel landed (lbs gw) annually in the South Atlantic (**Table F.8**). NMFS estimates 344 small businesses operate the 408 permitted vessels.

Table F.7. Number of trips that landed king mackerel in South Atlantic region and 8-county area, 2014-2018.

Year	South Atlantic Region	8-County Area	Percent 8-County
2014	9,905	7,834	79.1%
2015	9,940	8,313	83.6%
2016	10,925	9,097	83.3%
2017	12,054	9,930	82.4%
2018	10,771	8,952	83.1%
Average	**10,719**	**8,825**	**82.3%**

Source: SEFSC Online Economic Query System, Version 11, September 18, 2019.

Table F.8. Landings (lbs gw) of king mackerel in South Atlantic region and 8-county area, 2014- 2018.

Year	South Atlantic Region	8-County Area	Percent 8-County
2014	2,137,722	1,534,009	71.8%
2015	2,033,905	1,625,037	79.9%
2016	2,370,374	1,871,672	79.0%
2017	2,760,921	2,072,388	75.1%
2018	2,350,828	1,799,876	76.6%
Average	**2,330,750**	**1,780,596**	**76.4%**

Source: SEFSC Online Economic Query System, Version 11, September 18, 2019

The average of these 408 vessels has an annual revenue of $18,378 (2018 $) (**Table F.9**). The relative importance of king mackerel to the vessels that land king mackerel in the 8-county area is shown in the percentage of their total dockside revenue from king mackerel landings. King mackerel accounts for 55.4% of the 408 8-county vessels combined total dockside revenues, and that percentage is considerably higher than for vessels that land king mackerel in Florida as a whole (33.1%), North Carolina (19.9%) and South Carolina (2.6%) (**Table F.6**).

Table F.9. Number of permitted vessels that land king mackerel in 8-county area, their combined total dockside revenue (2018 $), average annual dockside revenue per vessel, and percentage of average dockside revenue from king mackerel landings, 2014-2018.

Year	Total Dockside Revenue	Vessels	Average Dockside Revenue per Vessel	Percent Dockside Revenue from King Mackerel
2014	$7,867,314	415	$18,957	49.0%
2015	$6,915,131	421	$16,425	54.4%
2016	$7,702,228	406	$18,971	56.8%
2017	$7,483,932	397	$18,851	60.1%
2018	$7,492,495	401	$18,685	56.8%
Average	**$7,492,220**	**408**	**$18,378**	**55.4%**

Source: SEFSC Online Economic Query System, Version 11, for nominal revenues and number of vessels, September 18, 2019, and BEA for GDP implicit price deflator, September 19, 2019.

Description of the projected reporting, record-keeping and other compliance requirements of the proposed rule

Action 1 (**Preferred Alternative 5**) would increase the trip limits in federal waters between the Flagler/Volusia and Miami-Dade/Monroe boundaries from October 1 through the end of February. Currently, the trip limit is 50 fish from October 1 through January 31, and then in February it increases to 75 fish if less than 70% of the Season 1 quota is reached (**Table F.10**). **Preferred Alternative 5** would establish a 100-fish trip limit from October through February. There would be no other regulatory changes.

Table F.10. Comparison of trips limits under No-Action and Preferred Alternatives.

Alternatives	October-January	February
No Action	50 fish	75 fish until 70% or more of Season 1 quota reached, then 50
Preferred	**100 fish**	**100 fish**

Estimate of economic impacts on small entities

Complicating the analysis of the economic impacts is the fact that the trip limit has varied during the 5-year period from 2014 through 2018. From 2014 through 2017, the area between Flagler/Volusia and Miami-Dade/Monroe county lines was part of the East Coastal Florida Subzone. Moreover, there were different trip limits within federal waters off the 8-county area in October. It was 3,500 lbs in federal waters off Volusia County and 75 fish elsewhere from 2014 through 2016, but then since 2017 they have had the same 50-fish limit (**Table F.11**).

Table F.11. Trip limits from January 2014 through May 10, 2017.

Area	October	Nov-Feb
Between Flagler/Volusia & Volusia/Brevard Lines	3,500 lbs	Part of the Florida East Coast Subzone
Between Volusia/Brevard & Miami-Dade/Monroe Line	75 fish	Part of the Florida East Coast Subzone

Note: In the Florida East Coast Subzone, king mackerel in or from the EEZ could be possessed on board at any time or landed in a day from a vessel with a commercial permit from November 1 through the end of February in quantities not to exceed 50 fish. Beginning on March 1 and continuing through March 31-- if 70 % or more of the [Gulf group] Florida east coast subzone quota has been taken in quantities not to exceed 50 fish. If less than 70 % of the [Gulf group] Florida east coast subzone quota has been taken in quantities not to exceed 75 fish.

To convert reported weight (lbs gw) to the number of king mackerel, the average weight of a king mackerel was determined from the Trip Intercept Program (TIP), which is a survey of commercial fishers that records the weight and length of all fish harvested on a commercial trip. TIP data was provided from the Southeast Fisheries Science Center (SEFSC) on July 12, 2019. The TIP data containing king mackerel harvest were filtered so only data from the 2017/2018 and 2018/2019 fishing years remained since the trip limits were implemented in CMP Amendment 26 in May of 2017. The TIP data was also filtered to isolate Florida's east coast king mackerel data from Volusia to Miami-Dade counties. The recent TIP data results in a Southern Zone king mackerel average weight of 7.38 pounds lbs ww or 7.10 lbs gw (SERO LAPPS Larkin July 19, 2019). Consequently, a 50 fish limit translates to 355 lbs gw of king mackerel, a 75 fish limit to 533 lbs gw and a 100-fish limit to 710 lbs gw.

During the month of January from 2014 through 2017, there was no trip limit in the 8-county area. Despite the lack of a limit, the majority of January trips landed no more than 50 fish (355 lbs gw) during those four years as shown in **Table F.12**. Notice that the number of trips in January 2018 was substantially lower than January landings during the previous years across all ranges of pounds.

Table F.12. Number of trips that landed king mackerel in 8-county area in January by landings (lbs gw) of king mackerel.

Year	All	1-355	356-533	534-710	Over 710
2014	621	409	137	40	35
2015	520	442	70	5	3
2016	718	484	204	25	5
2017	914	747	150	14	3
Average	**693**	**521**	**140**	**21**	**12**
2018	199	137	51	9	2

Source: SEFSC Online Economic Query System, Version 11, September 18, 2019.

January landings from 2014 through 2017 are used to estimate landings if the trip limit were 100 fish (355 lbs gw). However, the trips that landed over 100 fish (710 lbs gw) during that time are presumed below to land 710 lbs gw. Although factors other than the trip limit may have contributed to the 2018 declines, such as below average January weather conditions, this analysis presumes the difference between the 2014 through 2017 average number of trips and 2018 number of trips are due solely to the change in the trip limit. Hence, an increase of the trip limit from 50 to 100 fish in January would increase the number of trips from 199 to 693 and landings of king mackerel by 128,582 lbs gw (**Table F.13**). From 2014 through 2017, the average dockside price of king mackerel in the 8-county area was $2.33 (2018 $). At that price, the increase in landings would have an associated increase in total dockside revenue of $299,596 (2018 $), for approximately $734 per vessel for 408 vessels and approximately $871 per business for 344 small businesses. The increase to the average vessel represents 4.0% of its average annual dockside revenue from all landings $18,378 (2018 $).

Table F.13. Total landings (lbs gw) of king mackerel in 8-county area in January by lbs gw per trip.

Year	All	1-355	356-533	534-710	710[1]
2014	172,639	63,292	59,715	24,782	24,850
2015	129,929	96,218	28,645	2,936	2,130
2016	190,579	86,017	86,559	14,453	3,550
2017	222,053	148,468	63,266	8,189	2,130
Average	**178,800**	**98,499**	**59,546**	**12,590**	**8,165**
2018	50,218	21,776	21,784	5,238	1,420

Source: SEFSC Online Economic Query System, Version 11, September 18, 2019.
[1]Estimate of landings is the product of 710 lbs gw and number of trips over 710 lbs gw.

During the month of February from 2014 through 2017, the 8-county area was part of the Florida East Coast Subzone. In 2018, 70% of the Season 1 quota was not reached, so the trip limit was 75 fish (533 lbs gw). Unlike January of 2018 when the number of trips fell outside the range of trips during the four previous years, the number of February trips in 2018 did not fall outside the range of trips from 2014 through 2017 (**Table F.14**). February 2018 landings also fall within the range of landings from the four previous years (**Table F.15**). This suggests an increase in the February trip limit from 75 (533 lbs gw) to 100 fish (710 lbs gw) would have little to no impact on landings.

Table F.14. Number of trips that landed king mackerel in 8-county area in February by landings (lbs gw) of king mackerel.

Year	All	1-355	356-533	534-710	Over 710
2014	614	353	148	91	22
2015	536	496	35	4	1
2016	747	574	144	25	4
2017	838	684	137	14	3
2014-17 Average	**684**	**527**	**116**	**34**	**8**
2018	557	359	126	66	6

Source: SEFSC Online Economic Query System, Version 11, September 18, 2019.

Table F.15. Total landings (lbs gw) of king mackerel in 8-county area in February by lbs gw per trip.

Year	All	1-355	356-533	534-710	710[1]
2014	190,655	50,921	65,613	55,067	19,054
2015	113,800	96,814	13,755	2,428	803
2016	171,460	92,553	60,879	14,180	3,848
2017	180,626	113,483	55,924	8,311	2,908
2014-17 Average	**164,135**	**88,443**	**49,043**	**19,997**	**5,927**
2018	150,902	50,403	56,489	39,418	4,592

Source: SEFSC Online Economic Query System, Version 11, September 18, 2019.
[1]Estimate of landings is the product of 710 lbs gw and number of trips over 710 lbs gw.

During the month of October from 2014 through 2016, there was a 3,500-lbs trip limit in federal waters off Volusia County and a 75-fish (533-lbs gw) limit elsewhere in the 8-county area. In 2017 and 2018, there was a 50-fish limit (355 lbs gw) for the entire 8-county area. Although the numbers of 2018 trips fall within the range of trips from 2014 through 2016, the 2017 numbers of trips do not for all trips, those from 1 to 355, and trips with over 701 lbs gw of king mackerel (**Table F.16**). The same applies for landings (**Table F.17**). The rebound in 2018 may indicate that the increase from a 50 to 100-fish limit may have little to no impact on October landings.

Table F.16. Number of trips that landed king mackerel in 8-county area in October by landings (lbs gw) of king mackerel.

Year	All	1-355	356-533	545-710	Over 710
2014	485	455	20	3	7
2015	155	151	1	1	2
2016	104	101	2	0	1
2014-16 Average	**248**	**236**	**8**	**1**	**3**
2017	57	54	3	0	0
2018	227	221	4	1	1

Source: SEFSC Online Economic Query System, Version 11, September 18, 2019

Table F.17. Total landings (lbs gw) of king mackerel in 8-county area in October by lbs gw per trip.

Year	All	1-355	356-533	545-710	710[1]
2014	57,047	41,771	8,591	1,715	4,970
2015	16,246	13,904	360	562	1,420
2016	11,716	10,147	859	0	710
2014 - 16 Average	**28,336**	**21,941**	**3270**	**759**	**2,367**
2017	5,614	4,285	1329	0	0
2018	21,653	18,748	1,654	541	710

Source: SEFSC Online Economic Query System, Version 11, September 18, 2019.
[1]Estimate of landings is the product of 710 lbs gw and number of trips over 710 lbs gw.

During the months of November and December from 2014 through 2016 king mackerel in or from the EEZ could be possessed on board at any time or landed in a day from a vessel with a commercial permit from November 1 through the end of February in quantities not to exceed 50 fish. Beginning on March 1 and continuing through March 31-- if 70 % or more of the [Gulf group] Florida east coast subzone quota has been taken in quantities not to exceed 50 fish. If less than 70 % of the [Gulf group] Florida east coast subzone quota has been taken in quantities not to exceed 75 fish. However, it has been 50 fish (355 lbs gw) since 2017. In 2017, the total number of trips and the numbers by pounds landed of king mackerel fell below the range of trips from 2014 through 2016 (Table 6.22). However, as like in October, 2018 trips in the last two months of the calendar year rebounded to an extent that the total number of trips and numbers by range went beyond the 2014 through 2016 ranges. The same applies for landings (**Table F.18**). That suggests the increase to a 100-fish (710-lbs gw) limit would have no impact on November and December trips.

Table F.18. Number of trips that landed king mackerel in 8-county area in November and December combined by landings (lbs gw) of king mackerel.

Year	All	1-355	356-533	545-710	Over 710
2014	1,284	1,008	232	32	12
2015	1,036	707	285	40	4
2016	1,480	960	471	41	8
2014 - 16Average	**1,267**	**892**	**329**	**38**	**8**
2017	828	663	156	8	1
2018	1,991	1,213	723	45	10

Source: SEFSC Online Economic Query System, Version 11, September 18, 2019.

Table F.19. Total landings (lbs gw) of king mackerel in 8-county area in November and December combined by lbs gw per trip.

Year	All	1-355	356-533	545-710	710
2014	305,300	182,445	95,087	19,248	8,520
2015	253,588	103,824	123,976	22,948	2,840
2016	385,343	155,701	199,595	24,367	5,680
2014 – 16 Average	**314,744**	**147,323**	**139,553**	**22,188**	**5,680**
2017	151,496	78,859	67,028	4,899	710
2018	565,703	226,770	305,674	26,159	7,100

Source: SEFSC Online Economic Query System, Version 11, September 18, 2019.

In summary, the increase in the trip limit to 100 fish (710 lbs gw) would increase January landings of king mackerel and corresponding dockside revenues, but would have little to no impact on February or October through December landings. Specifically, the proposed rule would increase annual landings of king mackerel in the 8-county area by 128,582 lbs gw and corresponding dockside revenues by $299,596. The average of the 408 vessels would benefit with an increase in dockside revenue of $734 annually, which would be an increase in annual dockside revenue from all landings by 4.0%.

Significance of economic impacts on a substantial number of small entities

This rule would have no adverse economic impacts on small businesses. Therefore, it is concluded that this rule would not have a significant economic impact on a substantial number of small businesses.

As explained above, this rule would have beneficial impacts on 344 small businesses that operate 408 permitted vessels that land king mackerel in an 8-county area within the South Atlantic region. The 408 vessels represent 28.1% of the average annual number of vessels with a king mackerel permit. Those 28.1% of permitted vessels would have an average increase in annual dockside revenue of 4.0% per vessel.