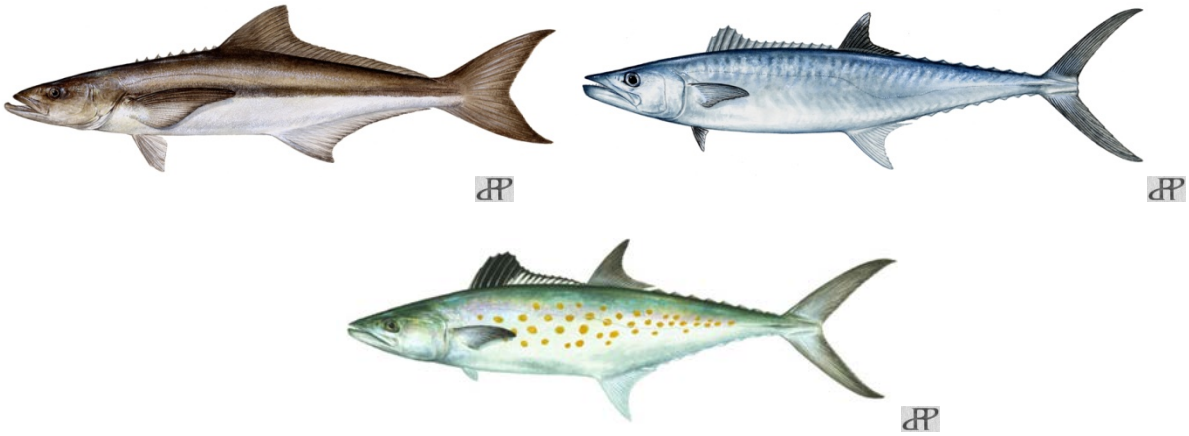
Modifications to the Coastal Migratory Pelagics Zone Management



Final Amendment 20B

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

Including Environmental Assessment, Fishery Impact Statement, Regulatory Impact Review, and Regulatory Flexibility Act Analysis

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MODIFICATIONS TO THE COASTAL MIGRATORY PELAGICS ZONE MANAGEMENT

Final Amendment 20B to Fishery Management Plan for Coastal Migratory Pelagic Resources in the Gulf of Mexico and Atlantic Region addressing modifications to the coastal migratory pelagic zones, including Environmental Assessment, Fishery Impact Statement, Regulatory Impact Review, and Regulatory Flexibility Act Analysis

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ABBREVIATIONS USED IN THIS DOCUMENT

ABC	acceptable biological catch
ACL	annual catch limit
ACT	annual catch target
ALS	Accumulated Landings System
AMs	accountability measures
AP	Advisory Panel
APA	Administrative Procedures Act
B	biomass
B_{MSY}	stock biomass level capable of producing an equilibrium yield of MSY
CFDBS	Commercial Fisheries Data Base System
CFL	coastal fisheries logbook
CLM	commercial landings monitoring system
CMP	coastal migratory pelagics
Council	Gulf of Mexico and South Atlantic Fishery Management Councils
CZMA	Coastal Zone Management Act
DQA	Data Quality Act
EA	environmental assessment
EEZ	exclusive economic zone
EFH	essential fish habitat
EIS	environmental impact statement
EJ	environmental justice
ESA	Endangered Species Act
F	instantaneous rate of fishing mortality
$F_{Current}$	current fishing mortality
FL	fork length
FLS	federal logbook system
F_{MSY}	fishing mortality rate corresponding to an equilibrium yield of MSY
F_{OY}	fishing mortality rate corresponding to an equilibrium yield of OY
FMP	Fishery Management Plan
Gulf	Gulf of Mexico
Gulf Council	Gulf of Mexico Fishery Management Council
GMFMC	Gulf of Mexico Fishery Management Council
HAPC	habitat area of particular concern
HBS	NMFS Headboat Survey
IFQ	individual fishing quota
M	mortality
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
MFMT	maximum fishing mortality threshold
Mid-Atlantic Council	Mid-Atlantic Fishery Management Council
MMPA	Marine Mammal Protection Act
mp	million pounds
MRFSS	Marine Recreational Fisheries Survey and Statistics
MRIP	Marine Recreational Information Program
MSST	minimum stock size threshold

MSY	maximum sustainable yield
NEFSC	New England Fisheries Science Center
NEPA	National Environmental Policy Act
nm	nautical mile
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOR	net operating revenue
NOS	National Ocean Service
OFL	overfishing level
OY	optimum yield
RA	Regional Administrator
RFA	Regulatory Flexibility Act of 1980
RIR	Regulatory Impact Review
RQ	regional quotient
SAFMC	South Atlantic Fishery Management Council
SBA	Small Business Administration
Secretary	Secretary of Commerce
SEDAR	Southeast Data, Assessment, and Review
SEFSC	Southeast Fisheries Science Center
SERO	Southeast Regional Office
South Atlantic Council	South Atlantic Fishery Management Council
SRD	Science and Research Director
$SSB_{Current}$	current spawning stock biomass
SSC	Scientific and Statistical Committee
TAC	total allowable catch
TLR	trip limit reduction
TPWD	Texas Parks and Wildlife Department
USCG	United States Coast Guard
VMS	vessel monitoring system
ww	whole weight

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FISHERY IMPACT STATEMENT

The Magnuson-Stevens Fishery Conservation and Management Act requires that a fishery impact statement (FIS) be prepared for all amendments to fishery management plans. The FIS contains an assessment of the likely biological and socioeconomic effects of the conservation and management measures on fishery participants and their communities, participants in the fisheries conducted in adjacent areas under the authority of another fishery management council, and the safety of human life at sea.

Amendment 20B to the Fishery Management Plan for the Coastal Migratory Pelagic (CMP) Resources in the Gulf of Mexico and Atlantic Region (FMP) consists of six management actions jointly developed by the Gulf of Mexico and South Atlantic Fishery Management Councils (Councils). The first two actions would adjust trip limits and fishing seasons for zones and subzones of the Gulf of Mexico (Gulf) migratory group. The third action would allow transit of vessels with king mackerel through areas closed to king mackerel fishing. The fourth would divide the annual catch limit (ACL) for Atlantic migratory group king and Spanish mackerel into zones. The fifth is an administrative change to the framework procedure for the FMP. The sixth addresses the results of the most recent stock assessment for cobia and divides the ACL into zones.

Biological Effects

Action 1, Preferred Alternative 3 Option a, would maintain the Gulf migratory group king mackerel trip limit in the Gulf Western Zone at 3,000 pounds (lbs) with no step-down. Preferred Alternative 4 Option b would retain the 1,250-lb trip limit for Gulf migratory group king mackerel in the Northern Subzone but remove the step-down (currently defined as a trip limit reduction to 500 lbs after 75% of the quota for the subzone is met). Preferred Alternative 4 Option c would retain the Gulf migratory group king mackerel 1,250-lb trip limit for the Southern Subzone but remove the step-down. None of the alternatives selected are expected to shorten the fishing season by more than approximately a few days to one week. Therefore, although the likelihood of catching the full ACL increases slightly with these changes, the impacts to the biological environment should be minimal.

Action 2, Preferred Alternative 3 Option a, would move the opening of the Gulf migratory group king mackerel fishing year for the Eastern Zone, Northern Subzone to the fall. The rest of the Gulf zones and subzones would retain a July 1 opening. All zones and subzones are predicted to remain within their respective annual quotas regardless of seasonal start dates. Consequently, no biological effects are anticipated from the preferred alternative because it merely addresses the shifting of harvest time to coincide with availability of the resource in the Northern Subzone.

Current regulations prohibit fishing for or retaining Gulf migratory group king mackerel in or from a closed zone. Many fishermen live and work near a boundary between two zones, and may wish to fish in one zone, but land in another. When the landing zone is closed, those fishermen are forced to land away from their home port. Action 3, Preferred Alternative 4, would allow fishermen who legally harvest king mackerel from an open zone to transport and land their catch in other areas of the Gulf that are closed to king mackerel fishing. If these fishermen are more likely to fish for king mackerel if they can land at their home port, then effort

could increase relative to Alternative 1 and the impacts to the physical and biological environments could increase. However, this action is expected to have more economic than biological impacts.

Participants are concerned that the commercial ACLs for Atlantic migratory group king or Spanish mackerel could be met by landings in one state before fish are available to fishermen in other states, particularly North Carolina. In Action 4, Preferred Alternative 3, which establishes separate quotas for a Northern Zone and Southern Zone, would not change the existing level of biological effects. The ACL and accountability measures (AMs) provide biological protection and prevent overfishing of Atlantic migratory group king and Spanish mackerel. The preferred alternatives would not change the level of catch of Atlantic migratory group king (Action 4.1) or Spanish (Action 4.2) mackerel, only how it would be distributed.

The current framework procedure was implemented through Amendment 18 to the FMP. Preferred Alternative 2 would allow changes to management measures under the standard documentation process of the open framework procedure, including AMs. A section outlining each Council's responsibilities was in the previous CMP framework, but was inadvertently omitted when the new framework was developed in Amendment 18. Preferred Alternative 4 would reinstate that language, in addition to expanding the responsibilities to include those for Spanish mackerel and cobia. Preferred Alternative 5 would fix language in the framework that refers to the Socioeconomic Panel, which no longer exists under that name. A combination of Preferred Alternatives 2, 4, and 5 offers the greatest efficiency and effectiveness of management change and indirect benefit to the biological environment, by allowing timelier implementation of management measures.

In Amendment 18 to the FMP, the Councils established the acceptable biological catch for the separate migratory groups of cobia using the Councils' boundary in Monroe County. However, the determination in the most recent stock assessment was that the biological boundary should be at the Florida/Georgia state line. To adjust for this difference between the Councils' jurisdictional areas and the areas used by the stock assessment, Preferred Alternative 3 Option d assigns the portion of the Gulf migratory group ACL attributable to the east coast of Florida and Atlantic side of the Florida Keys (i.e., the area within the South Atlantic Council's jurisdiction) to the South Atlantic Council. Creating zone-specific ACLs or annual catch targets potentially would have an impact on landings if harvest changes from current levels and AMs are triggered, because AMs could be more precisely applied to the area where landings have increased. The magnitude of the effects is expected to be proportional to the severity of the constraint imposed on fishery participants and the nature of corrective measures implemented in response to overages, if they occur.

Economic Effects

The trip limit increases in Action 1 for Gulf migratory group king mackerel are expected to grant additional flexibility in trip scheduling and in the selection of a catch composition, potentially resulting in increased net revenues. These direct economic benefits are expected to result in adverse market effects due to the shortened season and the associated increase in the supply of king mackerel during the season. For the Western Zone, Preferred Alternative 3 Option a would implement the same trip limit as the status quo alternative, and economic effects are not

expected. Effects that would result from Preferred Alternative 4 Option b are expected to be negligible because most commercial king mackerel trips in the Eastern Zone Northern Subzone land 1,000 lbs of king mackerel or less. Because about 80% of the trips in the Eastern Zone Southern Subzone land 1,000 lbs of king mackerel or less, economic effects that would be expected to result from Preferred Alternative 2 Option c are expected to be negligible.

Changes in fishing years for Gulf migratory group king mackerel in Action 2 could have some economic impacts on the king mackerel portion of the CMP fishery. The October 1-September 30 fishing season proposed in Preferred Alternative 3 Option a is expected to impact a small portion of the king mackerel annual landings in the Eastern Zone, Northern Subzone. Any disruptions to trip planning and catch composition as a result of Preferred Alternative 3 Option a are expected to be minimal, with negligible associated economic effects.

The economic effects expected to result from a relaxation of transit restrictions in Action 3 are anticipated to be positive because the potential increases in net revenues that would result from the added flexibility in selecting catch composition and from costs savings from lower fuel expenditures are assumed to outweigh potential adverse economic effects that could result from earlier closures. Preferred Alternative 3, which would allow transit through areas closed to king mackerel fishing for vessels possessing king mackerel that were legally harvested in the exclusive economic zone off areas open to king mackerel fishing, would be expected to result in greater economic benefits (though the opportunity for distributional effects increases).

Establishment of regional quotas for Atlantic migratory group king mackerel and Spanish mackerel under Actions 4.1 and 4.2 are expected to have direct positive economic effects on the commercial sectors of the fisheries (Preferred Alternative 3 Option b). The transfer provision under Preferred Alternative 4 would enhance the probability the overall ACL would be reached, thus creating a higher chance for a direct positive economic effect.

The proposed changes to the framework procedure (Action 5) are not expected to result in any direct changes on the economic environment. However, Preferred Alternatives 2, 4, and 5 should result in a speedier implementation of management measures that may be beneficial to the stocks, with associated economic benefits, or otherwise result in increased economic benefits to fishermen and associated businesses. These would be indirect positive economic effects of the proposed changes.

In Action 6, the commercial ACL for cobia allocated to the Florida East Coast Zone under all options of Alternative 3 are likely to result in the commercial ACL for this zone being reached prior to the end of the fishing year, resulting in direct negative economic effects for the cobia portion of the CMP fishery because of an in-season closure. In the Florida East Coast Zone, Preferred Option d would result in an estimated average annual reduction in ex-vessel landings value of $56,299; approximately 40,872 additional recreational trips, and an expected annual increase in net operating revenue (NOR) of $118,359. Preferred Alternative 3 Option d would increase the recreational ACL relative to the status quo for the Florida East Coast Zone, possibly increasing fishing opportunities for recreational anglers.

In Action 6, Preferred Alternative 3 Option d would not be expected to have significant negative economic effects for the commercial fishery in the Atlantic Zone in most years. Because there is no discernible trend in recreational landings for this zone, it can be expected that there could be negative impacts for the recreational sector in some years in terms of lost opportunity should the recreational fishery be closed as a result of reaching their ACL. In the Florida East Coast Zone, the commercial sector would be expected to incur negative economic consequences, particularly if 2010 and 2011 represent an increasing trend. Preferred Alternative 3 Option d would increase the ACL and ACT relative to the status quo in the Gulf, and increase the fishing opportunities for Gulf fishermen. Direct economic benefits would be expected to result from these increases if fishermen elected to take advantage of the additional fishing opportunities. However, average Gulf cobia landings have been below the status quo ACT for all the time intervals considered; therefore, it is unlikely that these potential economic benefits would materialize in the short run.

Social Effects

The social effects associated with changes in the for Gulf migratory group king mackerel trip limits under Action 1 would result from the trade-offs of removing the step-down limits. In the Gulf migratory group king mackerel Western Zone, no additional social impacts would be expected from Preferred Alternative 3 Option a because it is the same as the status quo. Preferred Alternative 4 Option b and Preferred Option c would benefit fishermen harvesting Gulf migratory group king mackerel in the Eastern Zone Northern and Southern Subzones by removing the trip limit reduction; however, the alternative could have negative impacts if the season is shorter due to rapid harvest without the step-down in place.

Under Action 2, the effects on the Gulf migratory group king mackerel fleet are associated with how closely the season opening date aligns with optimal fishing conditions in terms of weather, fish abundance, and fish availability. Changing the season opening date under Preferred Alternative 3 Option a is expected to benefit fishermen working in the Gulf migratory group king mackerel Northern Subzone by improving the opportunity that trip limits are more likely to be met on more trips, enabling greater profits on trips taken and requiring fewer trips be taken by fishermen. On the other hand, establishing the season during such optimal fishing conditions would be expected to contribute to indirect impacts if a shorter season results. Essentially, there may be a trade-off in expected impacts, where benefits from modifying the season start date to coincide with optimal fishing opportunities may, in turn, result in negative impacts from a shorter season as the fish are caught faster.

The transit provisions under Preferred Alternative 3 in Action 3 are expected to be beneficial to fishermen, dealers, and associated businesses. Allowing vessels to transit through closed areas to land king mackerel harvested in open areas, with specifications for gear stowing, could reduce potential negative effects of unnecessary travel just to avoid closed areas to offload legally caught fish. Transit provisions that enable a fishing trip to be shorter in duration would allow fishermen to spend less time on the water due to the reduced travel time, thereby also supporting safety at sea. Also, harvest in an open zone or subzone could provide a supply of fish to areas that are closed by allowing vessels to land in the closed areas. There may be a trade-off in these expected benefits if effort increases due to reduced travel time, but in general the transit provisions are expected to be beneficial to the commercial king mackerel fleet.

Allocation of the Atlantic migratory group king mackerel and Spanish mackerel to a Northern Zone and Southern Zone under Action 4 is expected to have similar social effects as sector allocations, in that there could likely be some changes in fishing behavior and impacts to fishermen, communities, and businesses associated with the CMP fishery. However, the allocations to each zone for each species in Preferred Alternative 3 Option b would be expected to benefit the commercial fleets by improving opportunity to harvest when the fish are available and reducing the chance that another area would land most of the quota. Because Preferred Alternative 3 Option b considers the last ten years of landings history to designate the quotas, the available quota to each zone would be similar to recent landings and is not expected to hinder access to the resource. If one zone could not meet its quota, the transfer provision in Preferred Alternative 4 would provide an avenue to adapt the available quota for each zone. In a fishing year, market or environmental conditions could result in one zone not meeting the zone's quota and Preferred Alternative 4 could help to meet the full commercial ACL for Atlantic migratory group king mackerel.

Modification of the framework procedure of the CMP fisheries in Action 5 is not expected to result in any direct impacts of the fleet or communities but Preferred Alternatives 2, 4, and 5 would improve timeliness, contribute to improved management of the CMP stocks, and would allow the Councils to respond to management needs.

The social effects of modifications to the cobia ACL in Action 6 are associated with two main factors: updated ACLs based on the most recent information from the stock assessment and any changes in access to the resource. The increase in the ACL under Preferred Alternative 3 Option d is expected to benefit commercial and recreational cobia fishermen in addition to communities because the catch level recommendations are based on updated data used in the stock assessment. The allocation of an ACL to the Florida East Coast under Preferred Option d could limit some fishing opportunities for vessels and recreational anglers harvesting in the Gulf or on the Florida East Coast, but in general the status quo of landings in the Gulf and Florida East Coast should continue with minimal effects on the commercial and recreational sectors, and associated businesses and communities.

Safety at Sea

Modification to the Gulf migratory group king mackerel fishing year for the Eastern Zone, Northern Subzone under Action 2 may affect safety at sea if weather conditions make fishing more difficult and less safe if the season extends into winter months. The transit provisions under Preferred Alternative 3 in Action 3 may improve safety by allowing vessels to land king mackerel at a port closer to their fishing area. None of the other actions would force vessels to participate in the king mackerel portion of the CMP fishery under adverse weather or ocean conditions. Therefore, no additional safety-at-sea issues would be created.

CHAPTER 1. INTRODUCTION

What Actions Are Being Proposed?
Actions in this amendment address issues associated with the boundaries between migratory groups, zones, and subzones; allocation of commercial annual catch limits (ACLs); and modification of the framework procedure for management of king mackerel, Spanish mackerel, and cobia.

Who Is Proposing the Action?
The Gulf of Mexico (Gulf) and South Atlantic Fishery Management Councils (Councils) are proposing the actions. The Councils develop the regulations and submit them to the National Marine Fisheries Service (NMFS) who ultimately approves, disapproves, or partially approves the actions in the amendment on behalf of the Secretary of Commerce. NMFS is an agency in the National Oceanic and Atmospheric Administration.

Who's Who?

- ***Gulf of Mexico*** and ***South Atlantic Fishery Management Councils*** – Engage in a process to determine a range of actions and alternatives, and recommends action to the National Marine Fisheries Service.
- ***National Marine Fisheries Service*** and ***Council staffs*** – Develop alternatives based on guidance from the Council, and analyze the environmental impacts of those alternatives.
- ***Secretary of Commerce*** – Will approve, disapprove, or partially approve the amendment as recommended by the Councils.

Why Are The Councils Considering Action?
For king mackerel, conflicts between fishermen from different areas have arisen due to early closures of zones and subzones. For Spanish mackerel and cobia, new stock assessments were completed in 2013 (SEDAR 28 2013a, 2013b, 2013c, 2013d) which indicate the stocks are healthy. The actions in this amendment address issues arising from the early closures of king mackerel zones and new data from the stock assessments.

1.1 Background

Initially the Fishery Management Plan (FMP) for the Coastal Migratory Pelagic Resources (CMP) in the Gulf of Mexico and South Atlantic Region (GMFMC and SAFMC 1982), treated king mackerel, Spanish mackerel, and cobia each as one stock. The present management regime in the FMP recognizes two migratory groups of each species, the Gulf migratory group and the Atlantic migratory group. Each migratory group is managed separately. The Gulf king mackerel migratory group and the Atlantic Spanish mackerel migratory group are also divided into zones or subzones for management purposes. This amendment considers changes or additions to fishing regulations for these areas to allow for more targeted management.

King mackerel: The two migratory groups are thought to mix seasonally off the east coast of Florida and in Monroe County, Florida. For management and assessment purposes, a boundary between the migratory groups of king mackerel was specified at the Volusia/Flagler County border on the Florida east coast in the winter (November 1 - March 31) and the Monroe/Collier

County border on the Florida southwest coast in the summer (April 1 - October 31) (Figure 1.1.1).

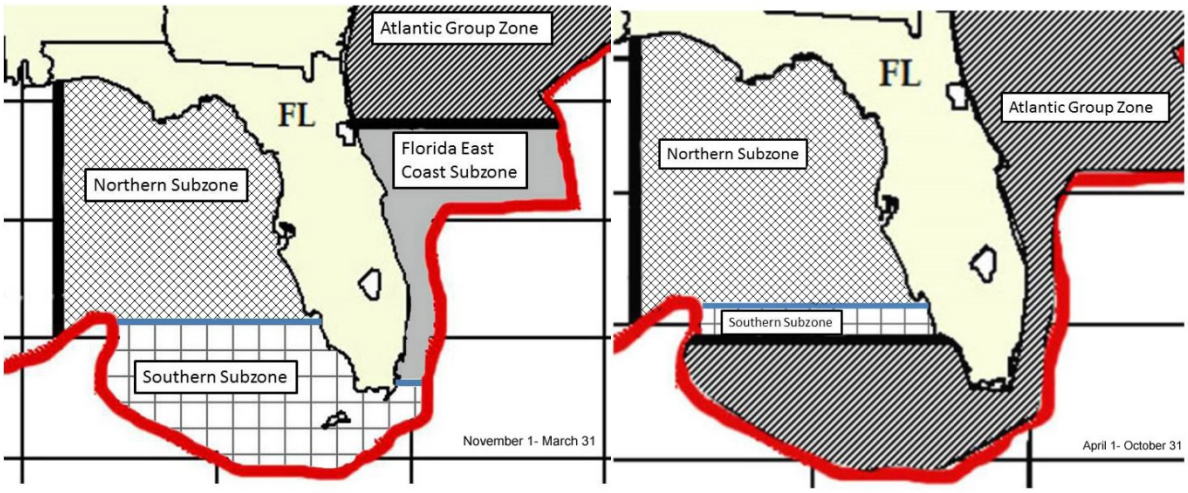

Figure 1.1.1. Seasonal boundary between Atlantic and Gulf migratory groups of king mackerel.

Amendment 1 (GMFMC and SAFMC 1985) established Eastern and Western Zones for the Gulf migratory group, divided at the Alabama/Florida border, each with a separate commercial allocation. Amendment 9 (GMFMC and SAFMC 2000) further subdivided the commercial hook-and-line king mackerel allocation for the Eastern Zone Florida west coast by establishing two subzones, Northern and Southern, with a dividing line between the two subzones at the Collier/Lee County line. These zones and subzones were established to ensure that fishermen throughout the Gulf had an opportunity to fish in their homeport area and that some of the allowable quota was available for those areas.

The commercial fishing year for the Gulf migratory group is July 1- June 30. The trip limit is 3,000 pounds (lbs) per day for the Western Zone. In general, the commercial quota in this zone is met in September to November of each year, and fishing is closed; in 2008/2009, the zone remained open until March, but in 2012/2013 the zone closed in August. Both the Northern and Southern Subzones have a 1,250-lb trip limit until 75% of the quota is reached, and then the trip limit is reduced to 500 lbs until the quota is taken, or the end of the fishing year. The Northern Subzone has closed in the past five years, but previously had not closed since 2003/2004. The quota for the Southern Subzone for hook-and-line gear generally is met in February or March, but occasionally the quota is not filled before the end of the fishing year. In the Southern Subzone, the gillnet season opens on the day after the Martin Luther King, Jr. holiday. The fishing year ends June 30, but the quota is usually reached within one to two weeks after opening. The East Coast Subzone opens November 1 with a 50 fish trip limit. If the 75% of the quota is not landed by February 1, the trip limit increases to 75 fish until the end of the fishing season (March 31) or the quota is met and the subzone is closed. From April 1- October 31, this area is part of the Atlantic migratory group.

The fishing year for the Atlantic migratory group is March 1 to the end of February. The northern boundary for this group is at the jurisdictional boundary between the Mid-Atlantic and

New England Fishery Management Councils, which is at the intersection point of Connecticut, Rhode Island, and New York.

Many king mackerel fishermen travel throughout the southeast region to fish under different quotas. For example, fishermen from the east coast of Florida may fish in the Western Zone in the summer and early fall until that quota is filled. They then move to the Florida Panhandle to fish under the Northern Subzone quota. When that quota is filled, they generally travel back to their homeport to fish during the winter and spring.

Recently, some fishermen who do not travel have expressed discontent with fishermen from outside their area contributing to filling the quota. In particular, fishermen from Louisiana and the Florida Panhandle feel that their zone/subzone is closed too quickly each year, depriving those who do not travel of fishing opportunities. Additionally, because of the fall closures of the Northern Subzone, fishermen on the west central coast of Florida have fewer opportunities to fish for king mackerel; by the time the fish have migrated that far south, the subzone is closed. Proposed actions to address these problems include changing trip limits and the dates of the fishing year.

Another problem resulting from management by subzones is that in spring, the Eastern Zone subzones are often closed, but Monroe County is open (because starting April 1, that county is part of the Atlantic migratory group). Some fishermen from southwest Florida, particularly from Collier County, fish in waters of northern Monroe County on the Florida west coast. Currently, regulations prevent them from transiting the closed area (Collier County) with king mackerel to return to their homeport. Their only option is to travel to the Florida Keys, a considerable distance from the fishing area. A similar issue arises when the Northern Subzone is closed but the Southern Subzone is open, and other areas where boundaries occur. This amendment considers allowing transit through closed areas by vessels possessing king mackerel, provided gear is appropriately stowed.

The South Atlantic Fishery Management Council (South Atlantic Council) is concerned that the commercial ACLs for king mackerel could be filled by fishermen in one state before fish are available to fishermen in other states, particularly North Carolina. State representatives from North Carolina have expressed a desire to manage a separate quota for their state, to ensure fishermen in their area have the opportunity to fish. This amendment considers assigning a separate quota for North Carolina, or for a northern zone that includes North Carolina, versus the rest of the Atlantic region.

Spanish mackerel: Although the two migratory groups mix in south Florida, abundance trends along each coast of Florida are different, indicating sufficient isolation between the two migratory groups. Consequently, the boundary for Spanish mackerel was fixed at the Miami-Dade/Monroe County border on Florida's southeast coast (Figure 1.1.2). The Atlantic migratory group is divided into northern and southern areas for trip limit purposes at the Florida/Georgia border and the northern area extends to the jurisdictional boundary between the Mid-Atlantic and New England Fishery Management Councils. Although only one quota is assigned to both zones, each zone has different trip limits and accountability measures. The fishing year for the

Gulf migratory group is April 1 – March 30 and the fishing year for the Atlantic migratory group is March 1 – end of February. The Gulf migratory group does not have a trip limit.

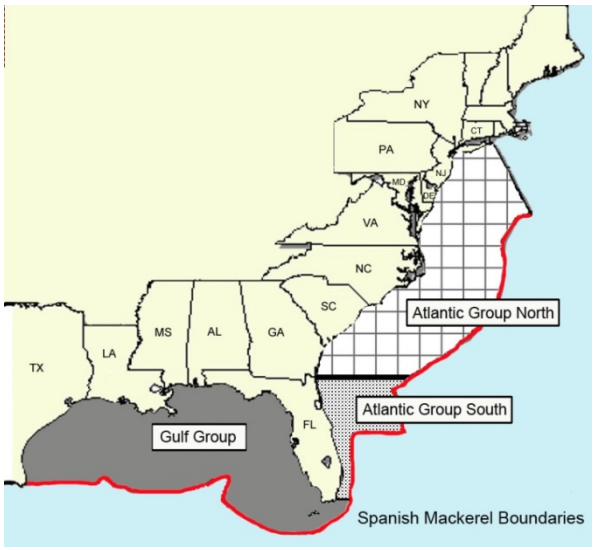

Figure 1.1.2. Fixed boundary between Atlantic and Gulf migratory groups of Spanish mackerel.

Most Spanish mackerel are landed in Florida and North Carolina. The South Atlantic Council is concerned that the commercial ACLs for Spanish mackerel could be filled by fishermen in one state before fish are available to fishermen in other states, particularly North Carolina. State representatives from North Carolina have expressed a desire to manage a separate quota for their state, to ensure fishermen in their area have the opportunity to fish. This amendment considers assigning a separate quota for North Carolina, or for a northern zone that includes North Carolina, versus the rest of the Atlantic region.

Cobia: Separate migratory groups of cobia were established in Amendment 18 (GMFMC and SAFMC 2011). The division between Gulf and Atlantic migratory groups was set at the Councils' jurisdictional boundary, off the Florida Keys. During the Southeast Data, Assessment, and Review (SEDAR) 28, panelists determined the biological boundary between the Gulf and Atlantic migratory groups to be at the Florida/Georgia border. This decision was based on genetic and tagging data, and recommendations from the commercial and recreational statistics working groups. They determined that a mixing zone occurs around Brevard County, Florida, and potentially to the north. Although they did not find enough resolution in the data to specifically identify a biological boundary, the Florida/Georgia line did not conflict with life history information and would be easiest for management (SEDAR 28 2013a, 2013c). The northern boundary of the Atlantic migratory group is at the jurisdictional boundary between the Mid-Atlantic and New England Councils (Figure 1.1.3).

Because the biological boundary from the stock assessment differs from the management boundary, acceptable biological catch (ABC) would need to be allocated for the east coast of Florida. Further, the assessment produced new recommendations for ABC, which should result in new ACLs and annual catch targets (ACTs) for cobia.

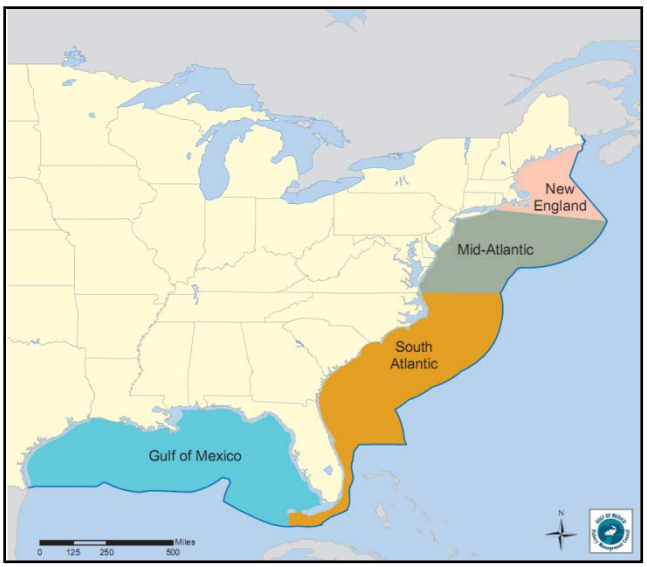

Figure 1.1.3. Jurisdictional boundaries of the Gulf (blue), South Atlantic (orange), Mid-Atlantic (green), and New England (peach) Fishery Management Councils. The South Atlantic Council manages cobia for the South Atlantic and Mid-Atlantic regions.

1.2 Purpose and Need

Purpose for Action

The purpose of this amendment is to determine if the current and proposed commercial trip limits, fishing seasons, and other regulations are necessary and appropriate and provide the greatest benefit to the coastal migratory pelagic fishery.

Need for Action

The need for the proposed actions is to achieve optimum yield while ensuring regulations are fair and equitable and fishery resources are utilized efficiently.

1.3 History of Management

The CMP FMP, with Environmental Impact Statement (EIS), was approved in 1982 and implemented by regulations effective in February 1983 (GMFMC and SAFMC 1982). The management unit includes king mackerel, Spanish mackerel, and cobia. The FMP treated king and Spanish mackerel as unit stocks in the Atlantic and Gulf. The 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. The following is a list of management changes relevant to CMP zonal issues. A full history of CMP management can be found in Amendment 18 (GMFMC and SAFMC 2011), and is incorporated here by reference.

Amendment 1, with EIS, implemented in September 1985, recognized separate Atlantic and Gulf migratory groups of king mackerel. The Gulf commercial allocation for king mackerel was divided into Eastern and Western Zones for the purpose of regional allocation, with 69% of the allocation provided to the Eastern Zone and 31% to the Western Zone.

Amendment 2, with environmental assessment (EA), implemented in July 1987, recognized two migratory groups of Spanish mackerel, established allocations of total allowable catch (TAC) for the commercial and recreational sectors, and set commercial quotas and recreational bag limits.

Amendment 5, with EA, implemented in August 1990, extended the management area for Atlantic migratory groups of mackerels through the Mid-Atlantic Council's area of jurisdiction; 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; and 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 could be determined.

Amendment 6, with EA, implemented in November 1992, allowed for Gulf migratory group king mackerel stock identification and allocation when appropriate.

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

Amendment 8, with EA, implemented March 1998, 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); modified the seasonal framework adjustment measures; and 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, established a trip limit of 3,000 lbs per vessel per trip for the Western Zone.

Amendment 18, with EA, implemented in January 2012, established ACLs and accountability measures for Gulf and Atlantic migratory groups of cobia, king mackerel, and Spanish mackerel. It also separated cobia into Atlantic and Gulf migratory groups.

CHAPTER 2. MANAGEMENT ALTERNATIVES

2.1 Action 1 - Modify the Commercial Hook-and-Line Trip Limits for Gulf Migratory Group King Mackerel

Alternative 1: No Action – Retain the existing commercial hook-and-line trip limits.

Western Zone: 3,000 lbs with no reduction

Eastern Zone Northern Subzone: 1,250 lbs until 75% of the quota is taken, at which time the trip limit decreases to 500 lbs

Eastern Zone Southern Subzone: 1,250 lbs until 75% of the quota is taken, at which time the trip limit decreases to 500 lbs

Alternative 2: Set the commercial hook-and-line trip limit at 2,000 lbs with no reduction.

Option a: For the Western zone

Option b: For the Eastern Zone Northern Subzone

Option c: For the Eastern Zone Southern Subzone

Preferred Alternative 3: Set the commercial hook-and-line trip limit at 3,000 lbs with no reduction.

Preferred Option a: For the Western zone

Option b: For the Eastern Zone Northern Subzone

Option c: For the Eastern Zone Southern Subzone

Preferred Alternative 4: Set the commercial hook-and-line trip limit at 1,250 lbs with no reduction.

Option a: For the Western zone

Preferred Option b: For the Eastern Zone Northern Subzone

Preferred Option c: For the Eastern Zone Southern Subzone

Note: Only one alternative may be selected for each option.

Discussion:

*Western Zone (**Alternative 1** and **Alternatives 2-4, Option a**)*

During the 1996/1997 – 2000/2001 fishing years, the Western Zone of the Gulf of Mexico (Gulf) opened July 1 and closed consistently in August. At the request of the Gulf of Mexico Fishery Management Council (Gulf Council), the National Marine Fisheries Service (NMFS) implemented a 3,000 lb trip limit for the Western Zone in 1999 to lengthen the fishing season. This action appears to have been partly successful in that, after the first year, the season has stayed open usually until October or November. However, the Western Zone is still usually closed for more than half of the fishing year, and in the most recent season (2012/2013), the zone closed in August (Table 2.1.1). Maintaining the existing trip limit at 3,000 lbs would likely continue this closure pattern.

Table 2.1.1. Gulf migratory group king mackerel season closure dates in the Western Zone and Eastern Zone Subzones. TLR=Trip limit reduction, "x" denotes no closure.

		Years											
		2000-01	**2001-02**	**2002-03**	**2003-04**	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**
Western Zone	Close	26-Aug	19-Nov	25-Oct	24-Sep	20-Oct	17-Nov	6-Oct	3-Nov	27-Mar	4-Sep	11-Feb	16-Sept	22-Aug
Eastern Zone, Northern Subzone	TLR	12-Nov	x	30-Nov	30-Oct	x	x	27-Nov	27-Dec	x	x	26-Oct	x	30-Aug
	Close	19-Nov	10-Nov	5-Dec	13-Nov	x	x	x	x	x	24-Oct	4-Apr	7-Oct	5-Oct
Eastern Zone, Southern Subzone	TLR	20-Feb	11-Mar	5-Mar	20-Mar	25-Feb	25-Feb	3-Mar	22-Mar	28-Feb	7-Feb	8-Mar	x	17-Mar
	Close	2-Mar	23-Mar	x	9-Apr	x	12-Mar	10-Apr	x	x	15-Feb	23-Mar	26-Feb	12-Mar

Note: The 2010/2011 fishing season was impacted by the Deepwater Horizon MC252 oil spill.

Using catch rates from the 2005/2006 – 2011/2012 fishing seasons, landings with each proposed reduction of the trip limit were predicted (Appendix D). Each lowering of the trip limit with **Alternatives 2-4** would extend the season some amount, with **Alternative 4, Option a** providing the latest predicted closure date in February (Table 2.1.2). Lowering the trip limit may benefit fishers in that it could extend the fishing season by several months. It may also deter some of the transient fishing that has occurred in the past when vessels from the east coast of Florida, in particular, have traveled to the Western Zone, thereby increasing effort in this portion of the fishery. However, the economic return per trip versus the cost of the trip could decrease with a lower trip limit. In some cases, particularly when vessels must travel long distances to reach the fishing grounds, fishermen may not be able to recoup their costs with less fish.

Table 2.1.2. Predicted closure dates for king mackerel hook-and-line fishing in the Western Zone for the different proposed trip limits. The closure dates are based on landings from the 2011/2012 fishing season. **Alternative 1** and **Alternative 3, Preferred Option c** propose no change to the current trip limit of 3,000 lbs.

	Alternative 1	**Alternative 2**	**Alternative 3**	**Alternative 4**
Trip Limit	3,000 lbs	2,000 lbs	3,000 lbs	1,250 lbs
Closure Date	Sept 11*	Oct 28	Sept 11*	Feb 11

* Projected closure date is earlier than the 2011/2012 closure date of 16-Sept because landings exceeded the quota.

*Eastern Zone – Northern and Southern Subzones (**Alternatives 2-4, Options b** and **c**)*
The current trip limits and trip limit reductions for the Northern and Southern Subzones of the Eastern Zone (**Alternative 1**) were intended to extend the fishing seasons. Particularly in the Southern Subzone, fishermen at times travel long distances to reach the fishing grounds. A trip limit of 1,250 lbs may not allow enough income on a trip to cover expenses. This problem is exacerbated when the trip limit is reduced to 500 lbs, leading to requests for removing the trip limit reduction. Additionally, in some years king mackerel have been caught at such a high rate that NMFS could not implement the reduction to 500 lbs before the zone needed to be closed (Table 2.1.1).

Using catch rates from the 2005/2006 – 2011/2012 fishing seasons, landings with each proposed increase of the trip limit were predicted (Appendix D). Each increase of the trip limit would shorten the season some amount; however, the differences among **Alternatives 1-4** are minimal (Table 2.1.3). Therefore increasing the trip limit could benefit fishers in that the economic return per trip versus the cost of the trip could increase with a higher trip limit without substantially reducing the season.

Table 2.1.3. Predicted closure dates for king mackerel hook-and-line fishing in the Eastern Zone, Northern and Southern Subzones for the different proposed trip limits. The closure dates are based on landings from the 2011/2012 fishing season. TLR = trip limit reduction.

	Alternative 1	**Alternative 2**	**Alternative 3**	**Alternative 4**
Trip Limit	1,250 lbs w/ TLR	2,000 lbs w/o TLR	3,000 lbs w/o TLR	1,250 lbs w/o TLR
Eastern Zone - Northern Subzone	Oct 1*	Sept 27	Sept 26	Sept 28
Eastern Zone - Southern Subzone	Mar 7**	Feb 15	Feb 9	Feb 21

* Projected closure date is earlier than the 2011/2012 closure date of October 7 because the quota was exceeded.
**Projected closure date is later than the 2011/2012 closure date of February 26 because the trip limit reduction did not get implemented before the quota was met.

The Southern Subzone encompasses Collier and Monroe Counties in Florida from November 1 through March 31. Beginning April 1, Monroe County (including the Florida Keys) becomes part of the Atlantic migratory group until October 31. Any change to the trip limit in the Southern Subzone would only apply to Monroe County when that area is considered part of the Atlantic. Therefore, the trip limit off Monroe County would remain 1,250 lbs annually with **Preferred Alternative 4 Preferred Option c.**

Establishing a single trip limit for the entire Gulf area by choosing the same options within **Alternatives 2, 3,** or **4** would simplify enforcement. Currently, vessels fishing off Alabama, Mississippi, Louisiana, and Texas can land 3,000 lbs, whereas vessels fishing off Florida can only land 1,250 lbs. However, fishermen in different areas may prefer lower trip limits and longer seasons to higher trip limits and shorter seasons, so the Gulf and South Atlantic Fishery Management Councils (Councils) could set different trip limits for the three areas based on their choice of preferred alternatives and preferred options above.

Council Conclusions:

The Councils chose to maintain the current 3,000-lb trip limit for the Western Zone (**Preferred Alternative 3 Option a**) because this higher trip limit allows vessels that travel long distances to be more cost efficient. Although a lower trip limit could extend the fishing season, many of the fishers in this area fish in other areas or for other species during the rest of the year.

The Councils chose to maintain the 1,250-lb trip limit for the Eastern Zone Northern Subzone, but eliminate the 500-lb trip limit reduction, (**Preferred Alternative 4 Option b**) because a higher trip limit might reduce the length of the fishing season. This subzone has a small quota that could quickly be caught if vessels landed more fish on each trip. Although the trip limit reduction at 75% of the quota can extend the fishing season, it was removed because it is difficult to implement in a timely manner before the entire quota is landed. Also, many vessels cannot make a profit if they can only land 500 lbs per trip.

The Councils chose to maintain the trip limit in the Eastern Zone Southern Subzone to 1,250 lbs; however they chose to remove the trip limit reduction (**Preferred Alternative 4 Option c**). Testimony from fishermen in the Eastern Zone Southern Subzone was divided among those who wanted the trip limit to increase and those that wanted the trip limit to remain at 1,250 lbs. Fishermen from Monroe County generally wanted the higher trip limit because they expend a lot of fuel to reach the fishing grounds, and a higher trip limit would increase their profit margin. Fishermen from Collier County generally wanted the lower trip limit to extend the fishing season. The Council chose to maintain the current trip limit, while removing the trip limit reduction for the same reasons as for the Northern Subzone.

2.2 Action 2 - Change the Fishing Year for Gulf Migratory Group King Mackerel for the Eastern Zone

Alternative 1: No Action - the fishing year remains July 1 – June 30**.**

Alternative 2: Change the fishing year for Gulf group king mackerel season to September 1 – August 31.

Option a: For the Eastern Zone Northern Subzone

Option b: For the Eastern Zone Southern Subzone

Preferred Alternative 3: Change the fishing year for Gulf group king mackerel season to October 1 – September 30.

Preferred Option a: For the Eastern Zone Northern Subzone

Option b: For the Eastern Zone Southern Subzone

Currently, the fishing year for Gulf group king mackerel in the Eastern Zone begins on July 1 (**Alternative 1**). **Alternative 1** would continue the current situation, where the Northern Subzone generally close in the fall and the Southern Subzone generally closes in the spring. **Alternatives 2** and **3** would move the opening of the fishing year into the fall. However, if the fishing year starts too late in the fall, fish may migrate south earlier in some years and may not be available. Also, weather conditions may make fishing more difficult and less safe if the season extends into winter months.

Alternative 2 Option a would change the fishing season dates for the Northern Subzone to September 1-August 31; and **Option b** would change the season dates for the Southern Subzone to September 1-August 31. **Preferred Alternative 3 Option a** would change the fishing season dates for the Northern Subzone to October 1-September 30; and **Alternative 3 Option b** would change the fishing season dates for the Southern Subzone to October 1-September 30. Choosing the same season dates for both zones would ease enforcement and lessen confusion among fishers. Charter captains in the Northern Subzone have indicated that October corresponds to a time of year when the number of charter trips booked every week begins to decrease substantially, and typically coincides with the offshore arrival of larger and more numerous migratory king mackerel. **Preferred Alternative 3 Option a** would allow dually permitted vessels in the Northern Subzone the opportunity to commercially fish for king mackerel at a time when the for-hire industry is slowing down, and do so more efficiently due to the typical increase in abundance of king mackerel during this time of year. Annual catch limits (ACLs) and quotas for both the recreational and commercial sectors, respectively, are tracked by the commercial fishing year. Recreational data from the Marine Recreational Information Program are available by two-month waves, starting with January. An October opening (**Alternative 3**) would complicate monitoring of the recreational ACL because the opening would fall in the middle of a two-month wave.

Because the Councils did not select a preferred alternative for the Southern Subzone, the fishing year in that zone will remain July 1 – June 30.

Table 2.2.1. Gulf king mackerel landings by region and month. Landings (lbs ww) were calculated for the two zones *by county landed*: Eastern Gulf (Monroe* - Escambia County, FL) and Western Gulf (AL, MS, LA, TX) for the most recent fishing seasons.

Region	Fishing Year	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
Eastern Gulf	**2004-2005**	27,617	8,200	4,344	26,386	46,625	43,382	155,204	295,371	92,601	8,330	12,078	5,859	725,997
	2005-2006	6,425	4,181	2,718	7,493	12,317	149,942	187,852	257,988	95,259	51,614	17,278	10,316	803,383
	2006-2007	18,755	11,473	7,748	44,859	71,236	55,780	180,168	199,732	136,223	12,093	6,743	13,761	758,571
	2007-2008	18,739	9,275	1,964	20,960	93,544	104,029	113,629	160,615	199,784	26,558	4,784	14,610	768,491
	2008-2009	16,493	2,726	14,117	48,754	77,729	141,248	263,300	253,174	27,745	17,542	26,322	24,747	913,897
	2009-2010	48,119	16,432	72,229	153,119	5,687	53,231	338,919	137,854	4,022	94,366	237	1,474	925,689
	2010-2011	16,910	17,482	44,204	121,627	23,367	17,533	180,111	295,612	144,604	2,850	119	7	864,426
Western Gulf	**2004-2005**	501,571	244,049	79,459	175,347	0	0	30	32	0	83	0	235	1,000,806
	2005-2006	312,526	294,042	67,222	136,637	127,032	0	9	0	0	0	148	10,941	948,557
	2006-2007	358,757	346,873	249,701	61,047	0	0	0	0	0	0	0	361	1,016,739
	2007-2008	420,772	278,557	105,853	163,046	23,947	0	0	0	0	0	0	451	992,626
	2008-2009	267,623	171,136	64,587	197,220	166,728	3,671	6,507	12,196	21,692	0	202	170	911,732
	2009-2010	530,290	373,595	134,551	1,251	23	0	0	0	35	0	0	0	1,039,745
	2010-2011	58,129	101,710	42,499	222,334	329,332	71,245	119,994	24,718	0	93	0	0	970,054

*Monroe County is only part of the Eastern Zone from November to March
Source: Accumulated Landings System data file (7/12/2012)

Table 2.2.2. Gulf king mackerel landings by region and month. Landings (lbs ww) were calculated for the two zones *by reported area fished*: Eastern Gulf (areas 10-109* and 7480-7489**) and Western Gulf (areas 110-219) for the most recent fishing seasons.

Region	Fishing Year	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
Eastern Gulf	2004-2005	31,020	7,033	2,899	24,675	46,582	43,060	155,665	295,691	94,578	2,495	12,016	5,968	721,682
	2005-2006	8,929	9,211	2,590	6,936	11,658	150,750	187,567	255,920	93,783	50,919	17,367	11,212	806,842
	2006-2007	30,486	23,942	19,816	47,019	71,853	52,571	179,993	203,665	140,346	4,028	6,734	13,639	794,092
	2007-2008	42,750	25,148	4,720	21,588	93,690	104,464	114,036	161,206	199,267	8,050	4,738	14,484	794,141
	2008-2009	36,062	9,681	17,317	52,214	77,064	143,157	262,543	251,519	27,161	3,784	26,409	24,732	931,643
	2009-2010	79,614	38,043	75,634	154,229	5,270	52,430	352,255	139,206	2,298	47,289	237	1,474	947,979
	2010-2011	16,910	17,482	44,666	130,934	43,267	21,957	180,720	300,595	147,914	1,443	56	7	905,951
Western Gulf	2004-2005	498,168	245,216	80,837	176,991	0	0	30	32	0	225	0	126	1,001,625
	2005-2006	310,022	288,998	67,350	137,194	127,569	0	9	0	0	0	44	145	931,331
	2006-2007	346,962	334,388	237,633	58,887	37	6	0	0	0	0	9	476	978,398
	2007-2008	396,750	262,641	103,089	162,418	24,046	96	0	0	5	0	46	568	949,659
	2008-2009	248,054	164,181	61,387	190,933	166,606	3,704	6,507	12,196	21,750	0	115	185	875,618
	2009-2010	498,792	351,984	131,146	29	23	0	0	0	35	0	0	0	982,009
	2010-2011	58,129	101,710	42,037	210,240	300,313	49,141	105,367	24,718	0	93	0	0	891,748

* Area 109 includes the eastern coast of Alabama

**Areas 10-39 and 7480-7489 are only part of the Eastern Zone from November to March

Source: Accumulated Landings System data file (7/12/2012)

Council Conclusions:

Both Councils received public testimony concerning the proposed changes to the fishing seasons in the respective Gulf jurisdictional fishing zones. This Action previously included alternatives to change the start of the fishing year for king mackerel in the Western Zone. For the Western Zone, but fishermen were somewhat divided on whether to retain the opening date for the commercial king mackerel season at July 1 or to move it to September 1. At its December 2013 and March 2014 meetings, the South Atlantic Council received public comments from several Western Zone fishermen recommending that the Councils not change the fishing season for the Western Zone. Public comment was almost unanimous in support of changing the opening date for the commercial king mackerel fishing season in the Eastern Zone Northern Subzone to October 1, and retaining the July 1 opening date for the Eastern Zone Southern Subzone. The Councils ultimately removed consideration of a fishing season change in the Western Zone (Appendix A).

2.3 Action 3 – Establish a Transit Provision for Travel through Areas that are Closed to King Mackerel Fishing

Alternative 1: No Action – do not establish a transit provision.

Alternative 2: Establish a provision allowing transit through the Florida west coast Northern and Southern Subzones when those zones are closed for vessels possessing Atlantic migratory group king mackerel that were legally harvested in the exclusive economic zone (EEZ) off Monroe County.

Preferred Alternative 3: Establish a provision allowing transit through areas closed to king mackerel fishing for vessels possessing king mackerel that were legally harvested in the EEZ off areas open to king mackerel fishing.

Alternative 4: Establish a provision allowing transit through the Eastern Zone, Northern Subzone when that area is closed for vessels possessing king mackerel that were legally harvested in the EEZ off Collier County.

Note: For Alternatives 2-4, the following conditions apply:
Only for vessels in direct and continuous transit and with gear stowed
Only for fishermen holding a federal commercial king mackerel permit

Discussion:
Current regulations prohibit possessing king mackerel in or from a zone that has closed because the quota has been met. Therefore, **Alternative 1** would not allow transit through any closed area even if the fish were harvested from an open area, because possession of king mackerel in a closed area is prohibited. Fishermen must either forgo fishing opportunities or expend extra time and fuel to land fish in an open zone.

Often the Eastern Zone, Southern Subzone, comprised of Collier and Monroe Counties, closes in early spring when the quota is met (see Table 2.1.1). Beginning April 1 of each year, Monroe County is considered to contain Atlantic migratory group king mackerel and the Southern Subzone is comprised of only Collier County. Some fishermen fish in the northern portion of Monroe County, which is a sparsely populated area. To land Atlantic migratory group king mackerel, fishermen must travel to the Florida Keys where dealers in Monroe County are located. This trip could be up to 100 miles. **Alternative 2** would allow fishermen who legally harvest king mackerel from Monroe County after April 1 of each year to transport and land their catch in other areas of the Gulf that are closed to king mackerel fishing.

Preferred Alternative 3 would allow transit through any area in the Gulf or South Atlantic that is closed because the quota has been met. Many fishermen live and work near a boundary between two zones, and may wish to fish in one zone, but land in another. When the fisherman's home port is located in a closed zone, the fisherman must travel to another port within the open zone to land their catch. **Preferred Alternative 3** would give fishermen the option to transit through any closed zone and land at their preferred port.

This situation is particularly problematic for fishermen who might fish in Collier County but have their home port in Lee County. The Northern Subzone usually closes before the Southern Subzone, so transit into the Northern Subzone is not allowed. **Alternative 4** would allow transit through Lee County and northward when the Northern Subzone is closed.

Alternatives 2 and **4**, and **Preferred Alternative 3** would reduce the economic burden on fishermen by allowing them to return to the port of their choice after fishing. These alternatives would also promote safety at sea by reducing travel time for those fishermen whose home port is located within a closed zone where the quota has been met.

Transit under **Alternatives 2** and **4**, and **Preferred Alternative 3** would be allowed for vessels traveling through the closed area with fishing gear appropriately stowed. The term "transit" is defined as on a direct and continuous course through a closed area. The term "appropriately stowed" means:

1) A gillnet must be left on the drum. Any additional gillnets not attached to the drum must be stowed below deck.

2) All rods and reels must be removed from rod holders and stowed securely on or below deck. Terminal gear (i.e., hook, leader, sinker, flasher, or bait) must be disconnected and stowed separately from the rod and reel. Sinkers must be disconnected from down riggers and stowed separately.

Council Conclusions:

Fishermen expressed frustration to the Councils about having to land fish away from their home ports, often incurring substantial additional expenses. Allowing transit through closed zones from open zones was viewed by some as a major law enforcement concern, with the enforceability of such a regulation heralded as difficult. Ultimately, the Councils determined that **Preferred Alternative 3** would allow fishermen to operate their businesses more economically, and would promote greater safety at sea through decreased transit times.

2.4 Action 4 – Establish Regional Commercial Quotas for Atlantic Migratory Group King Mackerel and Spanish Mackerel

2.4.1 Action 4.1 – Establish Commercial Quotas for Atlantic Migratory Group King Mackerel

Alternative 1: No Action - retain one commercial quota for the Atlantic migratory group king mackerel.

Alternative 2: Establish a separate commercial quota of Atlantic migratory group king mackerel for North Carolina based on **Options a-d** below. Monitoring and implementation would be based on **Options e-g** below.

Option a: The North Carolina quota would be the Atlantic migratory group ACL times the average of the proportion of landings in North Carolina from 2007/2008 through 2011/2012.

Option b: The North Carolina quota would be the Atlantic migratory group ACL times the average of the proportion of landings in North Carolina from 2002/2003 through 2011/2012.

Option c: The North Carolina quota would be the Atlantic migratory group ACL times (50% of the proportion of landings in North Carolina 2002/2003 through 2011/2012 and 50% of the proportion of landings in North Carolina 2007/2008 through 2011/2012).

Option d: The North Carolina quota would be the Atlantic migratory group ACL times the average of the proportion of landings in North Carolina from 1997/1998 through 2011/2012.

Option e: NMFS would monitor landings in both North Carolina and the rest of the states and close the EEZ of each area when the respective quota is met or expected to be met.

Option f: North Carolina would monitor landings in North Carolina and prohibit landings in North Carolina when the North Carolina quota is met or projected to be met. NMFS would monitor landings in the rest of the states and close the entire EEZ when the General Atlantic quota is reached.

Option g: North Carolina would monitor landings in North Carolina and inform NMFS when the North Carolina quota is met or expected to be met; NMFS would then close the EEZ off North Carolina. NMFS would monitor landings in the rest of the states and close the EEZ off those states when the quota is reached.

Note: One option from Options a-d and one option from Option e-g should be selected if this alternative is preferred.

Preferred Alternative 3: Establish quotas for Northern and Southern Zones for Atlantic migratory group king mackerel based on **Options a-d** below. The Northern Zone would include the EEZ off states from North Carolina north to New York. The Southern Zone would include

the EEZ off South Carolina, Georgia, and the east coast of Florida. NMFS would monitor landings in both zones and close the EEZ of each zone when the respective quota is reached.

Option a: Each zone quota would be the Atlantic migratory group ACL times the average of the proportion of landings in that zone from 2007/2008 through 2011/2012.

Preferred Option b: Each zone quota would be the Atlantic migratory group ACL times the average of the proportion of landings in that zone from 2002/2003 through 2011/2012.

Option c: Each zone quota would be the Atlantic migratory group ACL times the average (50% of the proportion of landings from that zone 2002/2003 through 2011/2012 and 50% of the proportion of landings from that zone 2007/2008 through 2011/2012).

Option d: Each zone quota would be the Atlantic migratory group ACL times the average of the proportion of landings in that zone from 1997/1998 through 2011/2012.

Preferred Alternative 4: Allow for transfer of quota between regions. North Carolina and Florida would be designated as the coordinating states for any transfer request, in consultation with other states.

Process for Transfer under Alternative 2

Florida, in consultation with Georgia, South Carolina, and the Mid-Atlantic states, may request approval from the NMFS Regional Administrator to transfer part of the General Atlantic quota to the North Carolina quota for the remainder of the fishing year. Requests for transfer must be made by letter signed by the principal state official with marine fishery management responsibility and expertise, or his/her previously named designee, for Florida, after consultation with all other states. The letter must certify that all pertinent state requirements have been met and identify the amount of quota to be transferred.

North Carolina may request approval from the NMFS Regional Administrator to transfer part of the North Carolina quota to the General Atlantic quota for the remainder of the fishing year. Requests for transfer must be made by letter signed by the principal state official with marine fishery management responsibility and expertise, or his/her previously named designee, for North Carolina. The letter must certify that all pertinent state requirements have been met and identify the amount of quota to be transferred.

Process for Transfer under Alternative 3

Florida, in consultation with Georgia and South Carolina, may request approval from the NMFS Regional Administrator to transfer part of the Southern Zone quota to the Northern Zone quota for the remainder of the fishing year. Requests for transfer must be made by letter signed by the principal state official with marine fishery management responsibility and expertise, or his/her previously named designee, for Florida, after consultation with Georgia and South Carolina. The letter must certify that all pertinent state requirements have been met and identify the amount of quota to be transferred.

North Carolina, in consultation with all Mid-Atlantic states, may request approval from the NMFS Regional Administrator to transfer part of the Northern Zone quota to the Southern Zone quota for the remainder of the fishing year. Requests for transfer must be made by letter signed by the principal state official with marine fishery management responsibility and expertise, or his/her previously named designee, for North Carolina, after consultation with the Mid-Atlantic states. The letter must certify that all pertinent state requirements have been met and identify the amount of quota to be transferred.

Discussion:

The South Atlantic Council is concerned that the commercial ACL for king mackerel could be filled by fishermen in one state before fish are available to fishermen in other states, particularly North Carolina. This could become more probable if ACLs are lowered due to changes in stock biomass of king mackerel. Allocation to a specific region would be similar to how commercial quotas are managed in the Mid-Atlantic and New England areas for some species, and fishermen and some state marine resource department representatives have expressed a desire to move in this direction. Separation of the Atlantic region for king mackerel into Northern and Southern Zones would be similar to Gulf zones and subzones for king mackerel.

Alternative 1 would not separate the Atlantic migratory group king mackerel ACL into a Northern quota and Southern quota. Landings from the entire South Atlantic and Mid-Atlantic jurisdictions would count toward the commercial ACL, and all areas would close when the ACL is met or projected to be met.

Under **Alternative 2**, a portion of the Atlantic migratory group king mackerel commercial ACL would be allocated to North Carolina based on landings from various periods under **Options a-d**. Under **Option e**, NMFS would monitor landings in all states and close harvest in the EEZ of the area when the respective quota is met or expected to be met. Under **Option f**, the North Carolina quota would be tracked by North Carolina through dealer reports of fish landed in North Carolina. The North Carolina Division of Marine Fisheries would monitor landings and prohibit sale of king mackerel in North Carolina when the North Carolina quota is met or expected to be met, but NMFS would not close the EEZ off North Carolina to king mackerel harvest unless the full ACL is met or expected to be met. **Option g** would designate responsibility of monitoring North Carolina landings and prohibiting sale in North Carolina to the state, but NMFS would also close the EEZ off North Carolina when the North Carolina quota is met or expected to be met. All current commercial accountability measures (AMs) would remain in place. North Carolina currently monitors quotas and reports catches to the Atlantic Coastal Cooperative Statistics Program and to NMFS, including state-by-state quotas of some Mid-Atlantic species, and has expressed interest in using a similar monitoring program for allocation of king mackerel.

Table 2.4.1 shows the expected percentage of the Atlantic migratory group king mackerel commercial ACL that would be allocated to North Carolina and to the General Atlantic Group for all other states for **Options a-d** under **Alternative 2**. **Option a**, which uses North Carolina's proportion of total Atlantic migratory group king mackerel landings over the past five years to determine the North Carolina allocation, would allocate the lowest percentage of the ACL to North Carolina. **Option d**, which uses North Carolina's proportion of total Atlantic migratory

group king mackerel landings over the past 15 years, would allocate the largest percentage to North Carolina.

Table 2.4.1. Expected portion of Atlantic migratory group king mackerel ACL that would be allocated to North Carolina and the General Atlantic Group for each option under **Alternative 2.**

	North Carolina Commercial Allocation		**General Atlantic Group Commercial Allocation**	
	% of Quota	lbs under Current ACL[1]	% of Quota	lbs under Current ACL[1]
Option a NC proportion of total landings 2007/08-2011/12	24.8%	962,240	75.2%	2,917,760
Option b NC proportion of total landings 2002/03-2011/12	33.2%	1,288,160	66.8%	2,591,840
Option c Bowtie Law (a+b)/2	29.0%	1,125,200	71.0%	2,754,800
Option d NC proportion of total landings 1997/98-2011/12	37.2%	1,443,360	62.8%	2,436,640

[1] The current commercial ACL for Atlantic migratory group king mackerel is 3,880,000 lbs.

Alternative 3 would separate the Atlantic region into Northern and Southern Zones (Figure 2.4.2) and allocate the Atlantic migratory group king mackerel commercial ACL between each zone based on an allocation in **Options a-d**. The boundary between the zones would be a line extending from the South Carolina/North Carolina state line. The Northern Zone allocation would be calculated using combined landings from North Carolina, Virginia, Maryland, Delaware, Pennsylvania, New Jersey, and New York. The Southern Zone allocation would be calculated using combined landings of South Carolina, Georgia, and the Florida east coast and Florida Keys on the Atlantic side. NMFS would monitor the Northern Zone commercial quota and Southern Zone commercial quota, and close the EEZ in the zone when the respective quota is met or expected to be met. Table 2.4.2 shows the expected percentage of the Atlantic migratory group king mackerel commercial ACL that would be allocated to each zone under **Options a-d**. All current commercial AMs would remain in place.

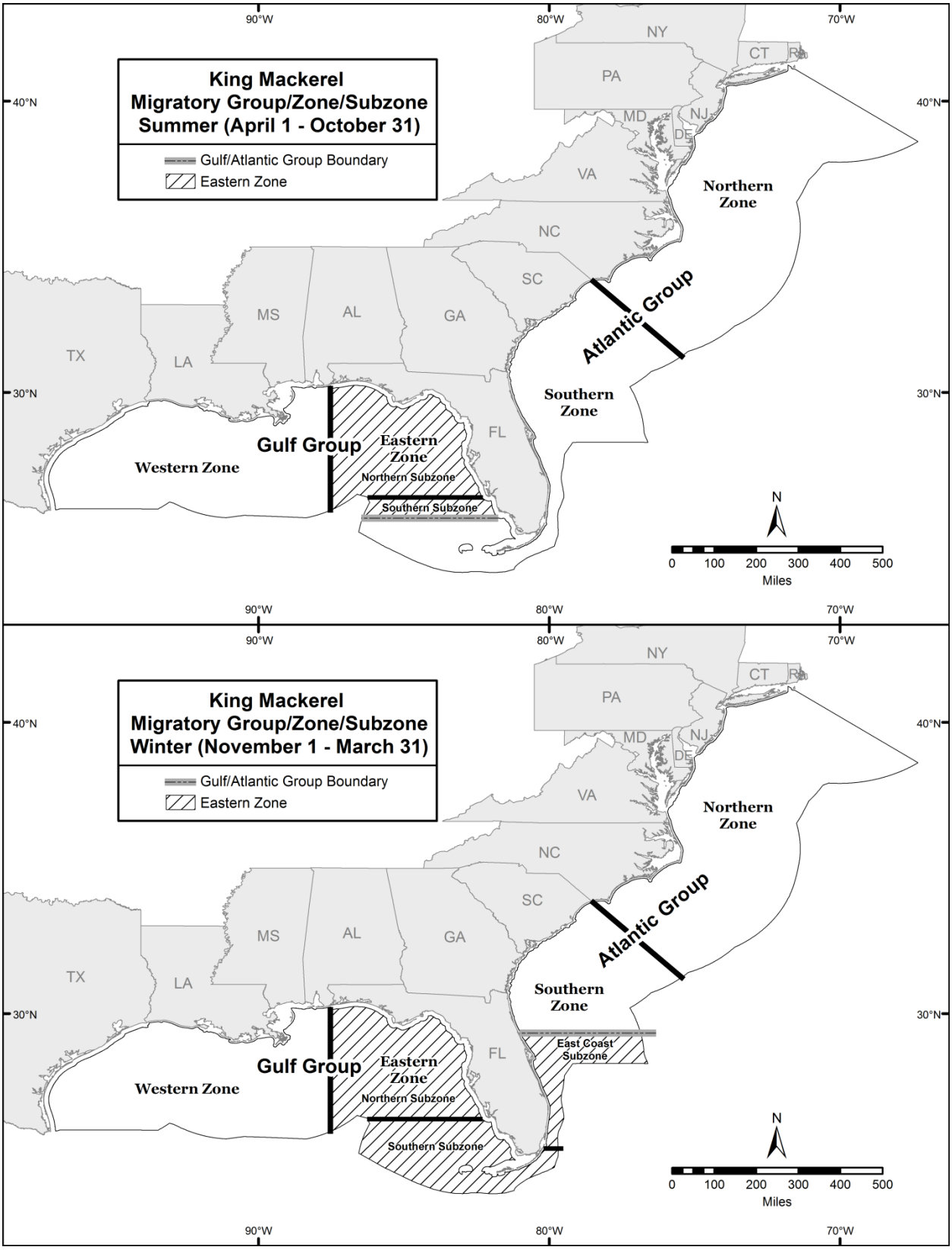

Figure 2.4.1. Designation of the Northern Zone and Southern Zone (**Alternative 3**) for Atlantic migratory group king mackerel.

Table 2.4.2. Expected portion of Atlantic migratory group king mackerel ACL that would be allocated to each zone under the options under **Alternative 3.**

	Northern Zone Commercial Allocation		**Southern Zone Commercial Allocation**	
	% of Quota	lbs under Current ACL[1]	% of Quota	lbs under Current ACL[1]
Option a Proportion of total landings 2007/08-2011/12	24.8%	962,240	75.2%	2,917,760
Preferred Option b Proportion of total landings 2002/03-2011/12	33.3%	1,292,040	66.7%	2,587,960
Option c Boyles Law (a+b)/2	29.1%	1,129,080	70.9%	2,750,920
Option d Proportion of total landings 1997/98-2011/12	37.4%	1,451,120	62.6%	2,428,880

[1] The current commercial ACL for Atlantic migratory group king mackerel is 3,880,000 lbs.

Preferred Alternative 4 would allow for quota to be transferred between North Carolina and the rest of the region (**Alternative 2)** or between the Northern and Southern Zones (**Preferred Alternative 3)** on an annual basis. The process would be similar to quota transfers between states for Mid-Atlantic summer flounder and would provide a way for unused quota to be moved and utilized without negatively impacting the stock, thereby achieving optimum yield (OY).

2.4.2 Action 4.2 – Establish Regional Commercial Quotas for Atlantic Migratory Group Spanish Mackerel.

Alternative 1: No Action - retain one commercial quota for the Atlantic migratory group Spanish mackerel

Alternative 2: Establish a separate commercial quota for Atlantic migratory group Spanish mackerel for North Carolina based on Options a-d below. Monitoring and implementation would be based on Options e-g below.

Option a: The North Carolina quota would be the Atlantic migratory group ACL times the average of the proportion of landings in North Carolina from 2007/08 through 2011/12.

Option b: The North Carolina quota would be the Atlantic migratory group ACL times the average of the proportion of landings in North Carolina from 2002/03 through 2011/2012.

Option c: The North Carolina quota would be the Atlantic migratory group ACL times (50% of the proportion of landings in North Carolina 2002/03 through 2011/2012 and 50% of the proportion of landings in North Carolina 2007/08 through 2011/12).

Option d: The North Carolina quota would be the Atlantic migratory group ACL times the average of the proportion of landings in North Carolina from 1997/98 through 2011/12.

Option e: NMFS would monitor landings in both North Carolina and the rest of the states and close the EEZ of each area when the respective quota is met or expected to be met.

Option f: North Carolina would monitor landings in North Carolina and prohibit landings in North Carolina when the North Carolina quota is met or projected to be met. NMFS would monitor landings in the rest of the states and close the entire EEZ when the General Atlantic quota is reached.

Option g: North Carolina would monitor landings in North Carolina and inform NMFS when the North Carolina quota is met or expected to be met; NMFS would then close the EEZ off North Carolina. NMFS would monitor landings in the rest of the states and close the EEZ off those states when that quota is reached.

Note: One option from Options a-d and one option from Option e-g should be selected if this alternative is preferred.

Preferred Alternative 3: Establish quotas for Northern and Southern Zones for Atlantic migratory group Spanish mackerel based on Options a-d below. The Northern Zone would include the EEZ off states from North Carolina north to New York. The Southern Zone would include the EEZ off South Carolina, Georgia, and the east coast of Florida. NMFS would monitor landings in both zones and close the EEZ of each zone when the respective quota is reached.

Option a: Each zone quota would be the Atlantic migratory group ACL times the average of the proportion of landings in that zone from 2007/08 through 2011/2012.

Preferred Option b: Each zone quota would be the Atlantic migratory group ACL times the average of the proportion of landings in that zone from 2002/2003 through 2011/2012.

Option c: Each zone quota would be the Atlantic migratory group ACL times the average (50% of the proportion of landings from that zone 2002/2003 through 2011/2012 and 50% of the proportion of landings from that zone 2007/2008 through 2011/2012).

Option d: Each zone quota would be the Atlantic migratory group ACL times the average of the proportion of landings in that zone from 1997/1998 through 2011/2012.

Preferred Alternative 4: Allow for transfer of quota between regions. North Carolina and Florida would be designated as the coordinating states for any transfer request, in consultation with other states.

Process for Transfer under Alternative 2

Florida, in consultation with Georgia, South Carolina, and the Mid-Atlantic states, may request approval from the NMFS Regional Administrator to transfer part of the General Atlantic quota to the North Carolina quota for the remainder of the fishing year. Requests for transfer must be made by letter signed by the principal state official with marine fishery management responsibility and expertise, or his/her previously named designee, for Florida, after consultation with all other states. The letter must certify that all pertinent state requirements have been met and identify the amount of quota to be transferred.

North Carolina may request approval from the NMFS Regional Administrator to transfer part of the North Carolina quota to the General Atlantic quota for the remainder of the fishing year. Requests for transfer must be made by letter signed by the principal state official with marine fishery management responsibility and expertise, or his/her previously named designee, for North Carolina. The letter must certify that all pertinent state requirements have been met and identify the amount of quota to be transferred.

Process for Transfer under Alternative 3

Florida, in consultation with Georgia and South Carolina, may request approval from the NMFS Regional Administrator to transfer part of the Southern Zone quota to the Northern Zone quota for the remainder of the fishing year. Requests for transfer must be made by letter signed by the principal state official with marine fishery management responsibility and expertise, or his/her previously named designee, for Florida, after consultation with Georgia and South Carolina. The letter must certify that all pertinent state requirements have been met and identify the amount of quota to be transferred.

North Carolina, in consultation with all Mid-Atlantic states, may request approval from the NMFS Regional Administrator to transfer part of the Northern Zone quota to the Southern Zone quota for the remainder of the fishing year. Requests for transfer must be made by letter signed by the principal state official with marine fishery management responsibility and expertise, or his/her previously named designee, for North Carolina, after consultation with the Mid-Atlantic

states. The letter must certify that all pertinent state requirements have been met and identify the amount of quota to be transferred.

Discussion:
The rationale for consideration of an allocation of Atlantic migratory Spanish mackerel to North Carolina or an allocation of the Atlantic migratory group Spanish mackerel between Northern and Southern Zones is identical to that described in Section 2.4.1 for king mackerel.

Alternative 1 would not separate the Atlantic migratory group Spanish mackerel ACL into a Northern quota and Southern quota. Landings from the entire South Atlantic and Mid-Atlantic jurisdictions would count toward the commercial ACL, and all areas would close when the ACL is met or projected to be met.

Under **Alternative 2**, a portion of the Spanish mackerel commercial ACL would be allocated to North Carolina based on landings from various periods under **Options a-d**. Under **Option e**, NMFS would monitor landings in all states and close harvest in the EEZ of the area when the respective quota is met or expected to be met. Under **Option f**, the North Carolina quota would be tracked by North Carolina through dealer reports of fish landed in North Carolina. The North Carolina Division of Marine Fisheries would monitor landings and prohibit sale of Spanish mackerel in North Carolina when the North Carolina quota is met or expected to be met, but NMFS would not close the EEZ off North Carolina to Spanish mackerel harvest unless the full ACL is met or expected to be met. **Option g** would designate responsibility of monitoring North Carolina landings and prohibiting sale in North Carolina to the state, but NMFS would also close the EEZ off North Carolina when the North Carolina commercial quota is met or expected to be met. All current commercial accountability measures (AMs) would remain in place. North Carolina currently monitors quotas and reports catches to Atlantic Coastal Cooperative Statistics Program and to NMFS, including state-by-state quotas of some Mid-Atlantic species, and has expressed interest in using a similar monitoring program for allocation of Spanish mackerel.

Table 2.4.3 shows the expected percentage of the Atlantic migratory group Spanish mackerel commercial ACL that would be allocated to North Carolina and to the General Atlantic Group for all other states for **Options a-d** under **Alternative 2**. **Option b**, which uses North Carolina's proportion of total Atlantic migratory group Spanish mackerel landings over the past ten years to determine the North Carolina allocation, would allocate the lowest percentage of the ACL to North Carolina. **Option a**, which uses North Carolina's proportion of total Atlantic migratory group Spanish mackerel landings over the past five years, would allocate the largest percentage to North Carolina.

Table 2.4.3. Expected portion of Atlantic migratory group Spanish mackerel ACL that would be allocated to North Carolina and the General Atlantic Group for **Options a-d** under **Alternative 2.**

	North Carolina Commercial Allocation		**General Atlantic Group Commercial Allocation**	
	% of Quota	lbs under Current ACL[1]	% of Quota	lbs under Current ACL[1]
Option a NC proportion of total landings 2007/08-2011/12	19.2%	600,960	80.8%	2,529,040
Option b NC proportion of total landings 2002/03-2011/12	17.2%	538,360	82.8%	2,591,640
Option c "Boyles Law" (a+b)/2	18.2%	569,660	81.8%	2,560,340
Option d NC proportion of total landings 1997/98-2011/12	18.2%	569,660	81.8%	2,560,340

[1] The current commercial ACL for Atlantic migratory group Spanish mackerel is 3,130,000 lbs.

Alternative 3 would separate the region into Northern and Southern Zones (Figure 2.4.2) and allocate the Atlantic migratory group Spanish mackerel commercial ACL between each zone based on an allocation in **Options a-d**. The boundary between the zones would be a line extending from the South Carolina/North Carolina state line. The Northern Zone allocation would be calculated using combined landings from North Carolina, Virginia, Maryland, Delaware, Pennsylvania, New Jersey, and New York. The Southern Zone allocation would be calculated using combined landings of South Carolina, Georgia, and the Florida east coast and Florida Keys on the Atlantic side. NMFS would monitor the Northern Zone commercial quota and Southern Zone commercial quota, and close the EEZ in the zone when the respective quota is met or expected to be met. Table 2.4.4 shows the expected percentage of the Atlantic migratory group Spanish mackerel commercial ACL that would be allocated to each zone under **Options a-d**. All current commercial AMs would remain in place.

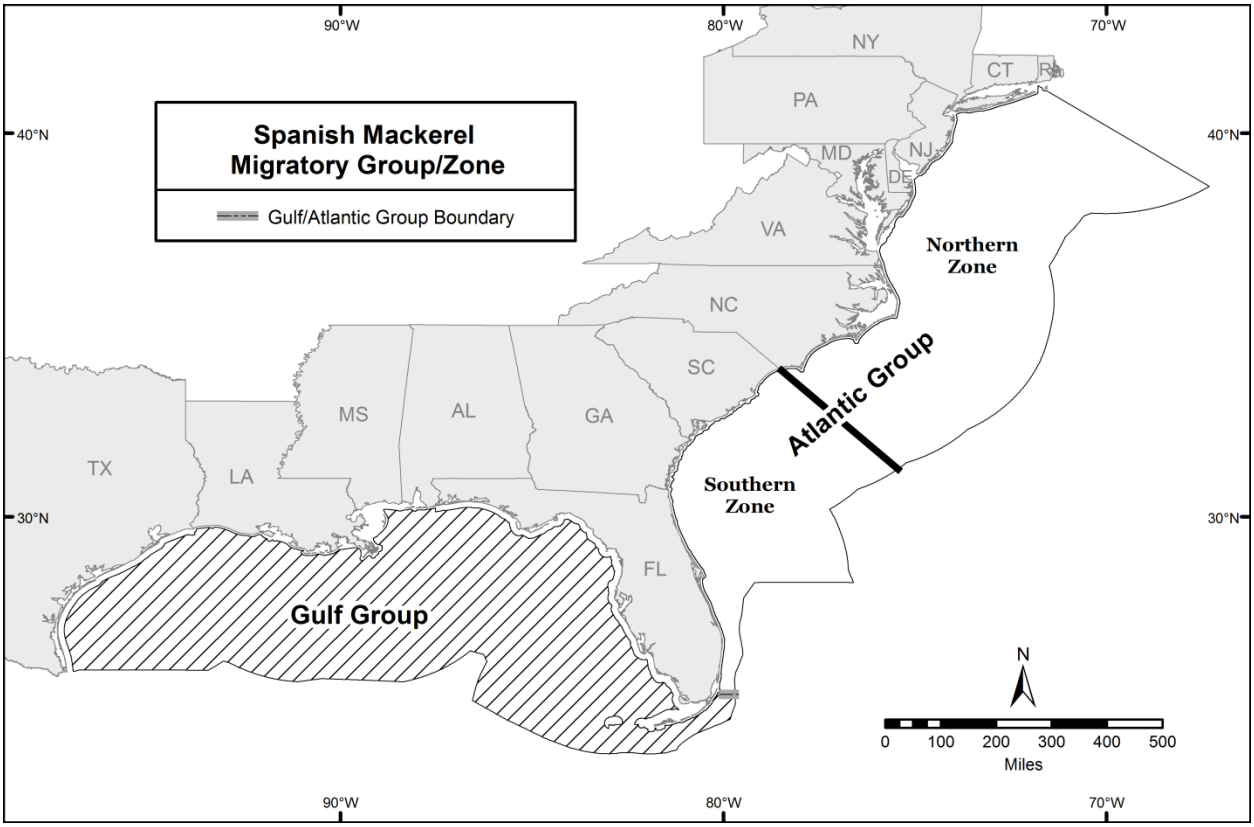

Figure 2.4.2. Designation of the Northern Zone and Southern Zone (**Alternative 3**) for Atlantic migratory group Spanish mackerel.

Table 2.4.4. Expected portion of Atlantic migratory group Spanish mackerel ACL that would be allocated to each zone under the options under **Alternative 3.**

	Northern Zone Commercial Allocation		**Southern Zone Commercial Allocation**	
	% of Quota	lbs under Current ACL[1]	% of Quota	lbs under Current ACL[1]
Option a Proportion of total landings 2007/08-2011/12	22.0%	688,600	78.0%	2,441,400
Preferred Option b Proportion of total landings 2002/03-2011/12	19.9%	622,870	80.1%	2,507,130
Option c "Boyles Law" (a+b)/2	21.0%	657,300	79.0%	2,472,700
Option d Proportion of total landings 1997/98-2011/12	22.8%	713,640	77.2%	2,416,360

[1] The current commercial ACL for Atlantic migratory group Spanish mackerel is 3,130,000 lbs.

Preferred Alternative 4 would allow for quota to be transferred between the Northern and Southern Zones (under **Alternative 3, Preferred Option b**) on an annual basis. The process would be similar to quota transfers between states for Mid-Atlantic summer flounder and would provide a way for unused ACL to be moved without negatively impacting the stock, thereby achieving OY. If **Preferred Alternative 4** is not selected as a preferred alternative in the final amendment, transfer would not be allowed.

Council Conclusions for Actions 4.1 and 4.2:

For both Action 4.1 and 4.2, the Councils selected an alternative that would establish regional commercial king and Spanish mackerel quotas for a Northern Zone and a Southern Zone. Initially an alternative was included to allocate a portion of the commercial ACLs for king and Spanish mackerel to each state, but only North Carolina was interested in pursuing a separate quota. During discussion, South Atlantic Council members from other states did not feel a separate quota was necessary for Florida, South Carolina, or Georgia. Additionally, Council members and representatives from South Carolina and Georgia expressed that the states did not have the resources to monitor a state quota at this time.

During development of the amendment, some South Atlantic Council members expressed concern about additional complexity in regulations and allocations of the ACLs given an already complex management system. The Mid-Atlantic states have relatively minimal landings of king and Spanish mackerel and the South Atlantic Council felt that quotas for separate zones, instead of to individual states, would allow North Carolina to have access to quota at different times of year while minimizing complexity in allocations of the commercial ACLs for Atlantic migratory group king and Spanish mackerel.

For allocations to zones, the Councils selected the option that would use the past ten years of landings to allocate to each zone. During discussion, the South Atlantic Council noted that using historical landings for a specified time period was a commonly accepted method to designate regional allocations. Using a combination of older and more recent landings (i.e., **Option c**) was more typical for sector allocations, and also would not capture variation in landings for North Carolina for each stock.

The Councils also selected an alternative to allow transfers to take place between the zones during the fishing year, pending approval of the states in the zone. If one quota is not met and is not expected to be met, allowing quota transfers would provide a way for unused quota to be moved without negatively impacting the stock, thereby achieving OY.

2.5 Action 5 - Modify the Framework Procedure.

Alternative 1: No Action – Do not modify the framework procedure adopted through Amendment 18.

Preferred Alternative 2: Modify the framework procedure to include changes to acceptable biological catches (ABCs), ABC/annual catch limit (ACL) control rules, and accountability measures (AMs) under the standard documentation process for open framework actions. Accountability measures that could be changed would include:

In-season AMs

- Closures and closure procedures
- Trip limit reductions or increases
- Designation of an individual fishing quota (IFQ) program as the AM for species in the IFQ program
- Implementation of gear restrictions

Post-season AMs

- Adjustment of season length
- Implementation of a closed season
- Adjustment or implementation of bag, trip, or possession limit
- Reduction of the ACL to account for the previous year overage
- Revoking a scheduled increase in the ACL if the ACL was exceeded in the previous year
- Implementation of gear restrictions
- Reporting and monitoring requirements

Alternative 3: Modify the framework procedure to include changes to accountability measures (AMs) under the standard documentation process for open framework actions. Accountability measures that could be changed would include:

In-season AMs

- Closure procedures
- Trip limit reductions or increases

Post-season AMs

- Adjustment of season length
- Adjustment of bag, trip, or possession limit

Preferred Alternative 4: Modify the framework procedure to include designation of responsibility to each Council for setting regulations for the migratory groups of each species.

This pertains to:

Responsibilities of each Council:

1. Recommendations with respect to the Atlantic migratory groups of king mackerel, Spanish mackerel, and cobia will be the responsibility of the South Atlantic Council, and those for the Gulf migratory groups of king mackerel, Spanish mackerel, and cobia will be the responsibility of the Gulf Council, with the following exceptions:
    a. The South Atlantic Council will have responsibility to set vessel trip limits,

closed seasons or areas, or gear restrictions for 1) the Eastern Zone - East Coast Subzone for Gulf migratory group king mackerel and 2) the east coast of Florida including the Atlantic side of the Florida Keys for Gulf migratory group cobia.

2. For stocks where a stock assessment indicates a different boundary between the Gulf and Atlantic migratory groups than the management boundary, a portion of the ACL for one migratory group may be apportioned to the appropriate zone, but management measures for that zone will be the responsibility of the Council within whose management area that zone is located.
3. Both Councils must concur on recommendations that affect both migratory groups.

Preferred Alternative 5: Make editorial changes to the framework procedure to reflect changes to the names of the Council advisory committees and panels.

Discussion:

The Councils currently have three different regulatory vehicles for addressing fishery management issues. First, they may develop a fishery management plan or plan amendment to establish management measures. The amendment process can take one to three years depending on the analysis needed to support the amendment actions. Second, the Councils may vote to request an interim or emergency rule that could remain effective for 180 days with the option to extend it for an additional 186 days. Interim and emergency rules are only meant as short-term management tools while permanent regulations are developed through the full/normal regulatory process. Third, the Councils may prepare a framework amendment (also called a framework action or regulatory amendment) based on a predetermined procedure that allows changes to specific management measures and parameters. Typically, framework amendments take less than a year to implement, but, like plan amendments, are effective until amended. The current framework procedure was implemented through Amendment 18 (GMFMC and SAFMC 2011). The section below highlights the changes proposed in the alternatives to this action.

Proposed Language for Updated Framework Procedure

This framework procedure provides standardized procedures for implementing management changes pursuant to the provisions of the Coastal Migratory Pelagic Fishery Management Plan (FMP) managed jointly between the Gulf of Mexico and South Atlantic Fishery Management Councils (Councils). Two basic processes are included: the open framework process and the closed framework process. The open framework process/procedure addresses issues where more policy discretion exists in selecting among various management options developed to address an identified management issue, such as changing a size limit to reduce harvest. The closed framework process addresses much more specific factual circumstances, where the FMP and implementing regulations identify specific action to be taken in the event of specific facts occurring, such as closing a sector of a fishery when the quota is or is projected to be harvested.

Open Framework Procedure:

1. Situations under which this framework procedure may be used to implement management changes include the following:
    a. A new stock assessment resulting in changes to the overfishing limit, acceptable

biological catch, or other associated management parameters. In such instances the Councils may, as part of a proposed framework action, propose an annual catch limit (ACL) or series of ACLs and optionally an annual catch target (ACT) or series of ACTs, as well as any corresponding adjustments to MSY, OY, and related management parameters.

b. New information or circumstances. The Councils will, as part of a proposed framework action, identify the new information and provide rationale as to why this new information indicates that management measures should be changed.
c. Changes are required to comply with applicable law such as the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Marine Mammal Protection Act, or are required as a result of a court order. In such instances the NMFS Regional Administrator (RA) will notify the Councils in writing of the issue and that action is required. If there is a legal deadline for taking action, the deadline will be included in the notification.

2. Open framework actions may be implemented in either of two ways: abbreviated documentation or standard documentation process.
    a. Abbreviated documentation process: Regulatory changes that may be categorized as a routine or insignificant may be proposed in the form of a letter or memo from the Councils to the RA containing the proposed action, and the relevant biological, social and economic information to support the action. Either Council may initiate the letter or memo, but both Councils must approve it. If multiple actions are proposed, a finding that the actions are also routine or insignificant must also be included. If the RA concurs with the determination and approves the proposed action, the action will be implemented through publication of appropriate notification in the Federal Register. Changes that may be viewed as routine or insignificant include, among others:
        i. Reporting and monitoring requirements;
        ii. Permitting requirements;
        iii. Gear marking requirements;
        iv. Vessel marking requirements;
        v. Restrictions relating to maintaining fish in a specific condition (whole condition, filleting, use as bait, etc.);
        vi. Bag and possession limit changes of not more than one fish;
        vii. Size limit changes of not more than 10% of the prior size limit;
        viii. Vessel trip limit changes of not more than 10% of the prior trip limit;
        ix. Closed seasons of not more than 10% of the overall open fishing season,
        x. Species complex composition;
        xi. Restricted areas (seasonal or year-round) affecting no more than a total of 100 nautical square miles;
        xii. Re-specification of ACL, ACT or quotas that had been previously approved as part of a series of ACLs, ACTs or quotas;
        xiii. Specification of MSY proxy, OY, and associated management parameters (such as overfished and overfishing definitions) where new values are calculated based on previously approved specifications;
        xiv. Gear restrictions, except those that result significant changes in the

fishery, such as complete prohibitions on gear types;

xv. Quota changes of not more than 10%, or retention of portion of an annual quota in anticipation of future regulatory changes during the same fishing year.

b. Standard documentation process: Regulatory changes that do not qualify as a routine or insignificant may be proposed in the form of a framework document with supporting analyses. Non-routine or significant actions that may be implemented under a framework action include:

i. Specification of ACTs or sector ACTs;
ii. Specification of ABC and ABC/ACL control rules;
iii. Rebuilding plans and revisions to approved rebuilding plans;
iv. The addition of new species to existing limited access privilege programs (LAPP);
v. Changes specified in section 2(a) that exceed the established thresholds;
vi. Changes to AMs including:

In-season AMs

1. Closures and closure procedures
2. Trip limit reductions or increases
3. Designation of an existing IFQ program as the AM for species in the IFQ program
4. Implementation of gear restrictions

Post-season AMs

5. Adjustment of season length
6. Implementation of closed seasons/time periods
7. Adjustment or implementation of bag, trip, or possession limit
8. Reduction of the ACL/ACT to account for the previous year overage
9. Revoking a scheduled increase in the ACL/ACT if the ACL was exceeded in the previous year
10. Implementation of gear restrictions
11. Reporting and monitoring requirements

3. Either Council may initiate the open framework process to inform the public of the issues and develop potential alternatives to address those issues. The framework process will include the development of documentation and public discussion during at least one meeting for each Council.

4. Prior to taking final action on the proposed framework action, each Council may convene their advisory committees and panels, as appropriate, to provide recommendations on the proposed actions.

5. For all framework actions, the initiating Council will provide the letter, memo, or completed framework document along with proposed regulations to the RA in a timely manner following final action by both Councils.

6. For all framework action requests, the RA will review the Councils' recommendations

and supporting information and notify the Councils of the determinations, in accordance with the Magnuson-Stevens Fishery Conservation and Management Act (Section 304) and other applicable law.

Closed Framework Procedure:
Consistent with existing requirements in the FMP and implementing regulations, the RA is authorized to conduct the following framework actions through appropriate notification in the *Federal Register*:

1. Close or adjust harvest any sector of the fishery for a species, sub-species, or species group that has a quota or sub-quota at such time as projected to be necessary to prevent the sector from exceeding its sector-quota for the remainder of the fishing year or sub-quota season;
2. Reopen any sector of the fishery that had been prematurely closed;
3. Implement an in-season AM for a sector that has reached or is projected to reach, or is approaching or is projected to approach its ACL, or implement a post-season AM for a sector that exceeded its ACL in the current year.

Responsibilities of Each Council:

1. Recommendations with respect to the Atlantic migratory groups of king mackerel, Spanish mackerel, and cobia will be the responsibility of the South Atlantic Council, and those for the Gulf migratory groups of king mackerel, Spanish mackerel, and cobia will be the responsibility of the Gulf Council, with the following exceptions:
   The South Atlantic Council will have responsibility to set vessel trip limits, closed seasons or areas, or gear restrictions for:
   a. The Eastern Zone - East Coast Subzone for Gulf migratory group king mackerel
   b. The east coast of Florida including the Atlantic side of the Florida Keys for Gulf migratory group cobia.

2. For stocks where a stock assessment indicates a different boundary between the Gulf and Atlantic migratory groups than the management boundary, a portion of the ACL for one migratory group may be apportioned to the appropriate zone, but management measures for that zone will be the responsibility of the Council within whose management area that zone is located.

3. Both councils must concur on recommendations that affect both migratory groups.

Alternative 1 would retain the current coastal migratory pelagics (CMP) framework procedure without any changes. This framework procedure provides the Gulf and South Atlantic Councils, and NMFS the flexibility to respond quickly to changes in the CMP fishery. The framework has both open and closed components. The open components provide more policy discretion, whereas the closed components address more specific, factual circumstances. Measures that can be changed under the procedure are identified, as well as the appropriate process needed for each type of change.

Preferred Alternative 2 would allow changes to management measures under the standard documentation process of the open framework procedure, including AMs (see highlighted portion of Section 2b of the framework procedure). The standard framework procedure involves the development of a framework amendment, with appropriate environmental analyses, which receives Council review and public comment. **Preferred Alternative 2** includes a comprehensive list of the specific AMs that could be changed through the process, and includes all AMs currently in place. Other items would also be added to the framework procedure to be consistent with those of other FMPs. These items include specification of the ABC and the ABC and ACL control rules. Adding these items would expedite changes needed after a new stock assessment. Table 2.5.1 lists the types of AMs that would be included under these alternatives, and an example of a change to an AM that would be possible through the framework action. **Alternative 3** would limit the management measures and types of AMs that could be changed through a framework amendment.

It is important to note that some items included in **Preferred Alternative 2** and **Alternative 3** are currently listed under the abbreviated process of the open framework procedure as management measures. Although similar, AMs differ from management measures in that they are tied in some way to the ACL. For example, through the abbreviated process, the Councils and NMFS may implement closed seasons of not more than 10% of the overall open fishing season. The reason for the closed season may be to protect spawning populations or to extend a fishing season later into the year. This is a management measure and would remain in effect until changed through another framework action. On the other hand, **Preferred Alternative 2** would allow the Councils and NMFS to implement a measure through the standard process whereby the Regional Administrator has the authority to set a closed season in the year following a year in which the ACL is exceeded. In this case, the reason for the closed season is to prevent another overage of the ACL. This is an AM and the closed season would only be in effect temporarily. Therefore, the current framework procedure allows changes to management measures, but the proposed alternatives would allow changes to AMs, including adding new AMs to the existing suite.

Table 2.5.1. Examples of proposed AMs that could be changed through a framework amendment, rather than a plan amendment.

AM type	Example
In-season	
Closure	Create an in-season closure when the ACL/ACT is reached or projected to be reached
Trip limit change	Implement or reduce a trip limit when landings reach 75% of the quota
LAPP	Allow an IFQ program to act as the commercial AM, and remove other AMs (as was done for grouper and tilefish)
Gear restrictions	Prohibit longlines when landings reach 75% of the quota
Post-season	**In a year following an overage of the ACL/ACT:**
Season length	Reduce the length of the season by the amount needed to prevent another overage
Closed season/time period	Prohibit fishing during a two-month closed season (as was done for greater amberjack) Prohibit fishing on weekends
Bag/trip/possession limit	Reduce the bag limit by the amount needed to prevent another overage
Reduction of ACL/ACT	Subtract the amount of the overage
Revoke an ACL/ACT increase	Freeze the ACL/ACT at the current level until overages cease
Gear restrictions	Prohibit use of longline gear shoreward of the 20 fathom contour
Reporting and monitoring	Require daily instead of weekly reporting to better track the ACL/ACT

A section outlining each Council's responsibilities was included in a previous CMP framework procedure, but was inadvertently omitted when the new framework procedure was developed in Amendment 18 (GMFMC and SAFMC 2011). **Preferred Alternative 4** would reinstate that language in addition to expanding the responsibilities to include those for Spanish mackerel and cobia. Section 1 of the framework procedure (highlighted above) allows each Council to set regulations for the respective migratory groups of each species. An exception is included for Florida east coast zones of king mackerel and cobia, which are considered to contain Gulf migratory group fish, but are located within the South Atlantic Council's jurisdiction. Section 2 of the framework procedure (highlighted above) allows similar exceptions if future stock assessments set biological boundaries different from management boundaries. Section 3 of the framework procedure (highlighted above) ensures both Councils are involved when actions would affect fish in both areas. The Councils could choose this alternative in addition to any of the other alternatives.

Preferred Alternative 5 would amend language in the framework that refers to the Socioeconomic Panel, which no longer exists under that name due to reorganization of the Scientific and Statistical Committee (SSC). The more general proposed language would accommodate future changes (see highlighted portion of Section 4 above). The Councils could choose this alternative in addition to any of the other alternatives.

Council Conclusions:

Under **Alternative 1**, changes to AMs would continue to require full plan amendments, limiting the Council's ability to implement regulatory changes in a timely manner. Many of the actions used in AMs such as changes to bag limits or closed seasons can already be modified as management action under the framework procedure. Allowing such changes by a framework procedure in some circumstances but not in others is inconsistent. The Councils chose **Preferred Alternative 2** because it allows such changes in AMs to be made under the framework procedure, and is consistent with the existing protocol that allows changes to be made under the framework procedure when they are management measures.

A previous framework procedure approved and used by the Councils allowed each Council to independently approve framework actions specific to their jurisdictional area; this provision was inadvertently omitted when the framework procedure implemented through Amendment 18 was developed and approved. The Councils chose **Preferred Alternative 4** to clarify the responsibilities of each Council and the procedure for developing framework amendments specific to each area. It also grants authority to the South Atlantic Council to manage Gulf migratory zones of CMP species that fall within their jurisdictional area.

Preferred Alternative 5 makes minor editorial changes in the text of the framework procedure to replace outdated terminology in the names of advisory committees. The Councils chose this alternative because it eliminates possible confusion from the use of terminology that is no longer accurate.

No direct physical, biological, or ecological effects would be expected from modifications of the framework procedure. However, if modifications increase the ease with which regulations can be implemented as needed, long-term biological benefits would increase, such as increased stock size. Framework changes may also result in a faster implementation of measures beneficial to fishery participants. Indirect positive economic effects are expected to result from these potential benefits to the stocks and/or to fishery participants. Further, timeliness in the regulatory process removes uncertainty with regard to changes in management while protecting the stock.

2.6 Action 6. Modify the Gulf and Atlantic Migratory Group Cobia Annual Catch Limits (ACLs) and Annual Catch Targets (ACTs).

Alternative 1: No Action. The entire Gulf migratory group cobia ACL applies to the Gulf Council jurisdictional area and the entire Atlantic migratory group cobia ACL applies to the South Atlantic jurisdictional area. The ACLs and ACTs established by Amendment 18 are as follows:

Gulf Migratory Group	Atlantic Migratory Group
ACL = ABC = 1,460,000 lbs	ACL = ABC = OY = 1,571,399 lbs Commercial ACL (8% ACL) = 125,712 lbs Recreational ACL (92% ACL) = 1,445,687 lbs
Stock ACT = 1,310,000 lbs	Recreational ACT = 1,184,688 lbs

Alternative 2: The ACL equals the ABC as determined by the SSCs for each migratory group. The entire Gulf migratory group cobia ACL applies to the Gulf Council jurisdictional area and the entire Atlantic migratory group cobia ACL applies to the South Atlantic jurisdictional area. The ACLs and ACTs would be as follows:

Gulf Migratory Group	Atlantic Migratory Group
(See Table 2.6.1 for values)	
ACL = ABC	ACL = ABC = OY Commercial ACL = 8% ACL Recreational ACL = 92% ACL
Stock ACT = 90% ACL	Recreational ACT = ACL [(1-PSE) or 0.5, whichever is greater]

Preferred Alternative 3: The ACL for each jurisdictional area would be determined as follows:

- The Gulf migratory group cobia ABC (as determined by the SSCs) would be divided into a Gulf Zone ACL and a Florida East Coast Zone ACL (Florida/Georgia border to the Gulf and South Atlantic Councils jurisdictional boundary) based on the options below.

  Option a: Use 2003-2012 (10 years) landings to establish the percentage split for the Gulf ABC.

  Option b: Use 2008-2012 (5 years) landings to establish the percentage split for the Gulf ABC.

  Option c: Use 50% of landings from 2003-2012 + 50% of landings from 2008-2012 to establish the percentage split for the Gulf ABC.

  Preferred Option d: Use 1998-2012 (15 years) landings to establish the percentage split for the Gulf ABC.

  Option e: Based on yellowtail snapper: 50% of average landings from 1993-2008 + 50% of average landings from 2006-2008 to establish the percentage split for the Gulf ABC.

  Option f: Based on mutton snapper: 50% of average landings from 1990-2008 + 50% of average landings from 2006-2008 to establish the percentage split for the Gulf ABC.

- The Atlantic migratory group ACL would be equal to the ABC for the Atlantic migratory group cobia (as determined by the SSCs).

- Management measures set by the South Atlantic Council for the Atlantic migratory group would also apply to the Gulf migratory group Florida East Coast Zone.

The ACLs and ACTs would be as follows:

Gulf Migratory Group		**Atlantic Migratory Group**
(see Table 2.6.3 for values for each Option)		
Gulf Zone	**FL East Coast Zone**	
ACL = x% ABC	ACL = x% ABC Commercial ACL = 8% ACL Recreational ACL = 92% ACL	ACL = ABC = OY Commercial ACL = 8% ACL Recreational ACL = 92% ACL
Stock ACT = 90%ACL	Recreational ACT = ACL [(1-PSE) or 0.5, whichever is greater]	Recreational ACT = ACL [(1-PSE) or 0.5, whichever is greater]

Discussion:

Amendment 18 (GMFMC and SAFMC 2011) established ABC control rules for Gulf and Atlantic migratory groups of cobia. The Councils' SSCs recommended the previous ABCs for both migratory groups of cobia based on the Gulf Council's ABC control rule for stocks for which landings data exist and expert opinion indicates that landings are a small portion of the stock biomass (Tier 3a).

In Amendment 18 (GMFMC and SAFMC 2011), the Councils established the ABCs for the separate migratory groups of cobia using the Councils' boundary in Monroe County. However, the determination in the most recent stock assessment (SEDAR 28 2013a, 2013c) was that the biological boundary should be at the Florida/Georgia line. The stock assessment results define Georgia north through the Mid-Atlantic area for the Atlantic migratory group, and the entire east coast of Florida through Texas for the Gulf migratory group. To adjust for this difference between the Councils' jurisdictional areas and the areas used by the stock assessment, the portion of the Gulf migratory group ACL attributable to the east coast of Florida and Atlantic side of the Florida Keys (i.e., the area within the South Atlantic Council's jurisdiction) would be reassigned to the South Atlantic Council. Action 5 adjusts the framework to allow the South Atlantic Council to create regulations for this area, even though the stock assessment considers those fish part of the Gulf migratory group, similar to how the East Coast Subzone for king mackerel is managed.

The ACLs and ACTs for Gulf and Atlantic migratory groups of cobia were also designated in Amendment 18 (GMFMC and SAFMC 2011). These harvest limits and targets would remain in effect under **Alternative 1** for this action, and they would not be updated according to the SSC's new ABC recommendation based on the SEDAR 28 stock assessment (SEDAR 28 2013a, 2013 c). The actions in Amendment 18 provided definitions for ACLs and ACTs, creating *de facto* control rules for their establishment. For both migratory groups, ACL was defined as equal to ABC. For the Atlantic migratory group, sector ACLs were defined as the ACL times the sector

allocation, and the recreational ACT was defined as the ACL times [(1-PSE) or 0.5, whichever is greater]. Furthermore, the Atlantic migratory group OY was set equal to the ACL. For the Gulf migratory group, the stock ACT was defined as 90% of the ACL. Thus, the numerical values associated with the ACLs and ACTs are dependent on the ABC. Therefore, a change in the ABC should result in a change in the ACLs and ACTs. By keeping the numerical values currently specified, the Council would be changing the intent of the ACL and ACT definitions, and removing associations with ABC.

Alternatives 2 and **Preferred Alternative 3** for this action would maintain the definitions established in Amendment 18 (GMFMC and SAFMC 2011). When the SSC recommends an ABC for a species, they systematically take into account scientific uncertainty, which establishes a buffer between the ABC and overfishing limit (OFL). With those factors built into the primary harvest limit from which the other limits are tiered, the risk of overfishing is significantly reduced regardless of how close the ACL and OY are set to the ABC. For Gulf migratory group cobia the ABC is 93% of the OFL, but for Atlantic migratory group cobia an OFL was not established. Amendment 18 set the cobia ACLs equal to the ABCs, with no buffers, because: 1) there was no indication either stock was overfished or undergoing overfishing; 2) the AMs implemented through Amendment 18 are in place to correct for any ACL overages should they occur; and 3) repeated ACL overages are not expected due to improved commercial monitoring mechanisms, proposed improvements to dealer reporting, and proposed improvements to reporting of recreational data.

The SEDAR 28 stock assessment for Atlantic migratory group cobia (SEDAR 28 2013c) determined that the stock is not overfished or experiencing overfishing. The current fishing mortality, $F_{Current,}$ was defined as the geometric mean of the previous three years of fishing mortality (2009-2011). The maximum fishing mortality threshold (MFMT) is the maximum amount of fishing mortality able to be supported by the population without resulting in overfishing. The current spawning stock biomass, $SSB_{Current,}$ was defined as the geometric mean of the previous three years of spawning stock biomass (2009-2011). The minimum stock size threshold (MSST) is the minimum spawning stock biomass level necessary to prevent the population from being overfished. Stock status indicators for the base case model were: $F_{Current}$/MFMT = 0.599; $SSB_{Current}$/MSST = 1.75.

The Gulf Council's SSC review (GMFMC 2013a) of the SEDAR 28 stock assessment of Gulf cobia (2013a) determined that the stock was not overfished or experiencing overfishing. Stock status indicators for the base case model were: $F_{Current}$/MFMT = 0.659; $SSB_{Current}$/MSST = 1.739.

After reviewing the SEDAR 28 stock assessments, the Gulf and South Atlantic SSCs recommended new ABCs to their respective Councils. Table 2.6.1 shows the recommended ABC values.

Alternative 2 would apply all of the ABC for Gulf migratory group cobia to the Gulf jurisdictional area; however, the ABC is based on landings that include the east coast of Florida, which is not within the Gulf jurisdictional area. Thus, the Gulf would be "credited" with landings that were actually from the South Atlantic jurisdictional area. Conversely, the South Atlantic would lose the amount of landings from the Florida east coast, but that area would still

be within the South Atlantic management area. The result would be an ACL for the South Atlantic that would be lowered by the amount of east coast landings, but in the future, Florida east coast landings of cobia would still count against the South Atlantic ACL.

Table 2.6.1. ABCs for Atlantic and Gulf migratory group cobia (as recommended by the Council SSCs, based on results from SEDAR 28), and ACLs and ACTs for each option in **Alternative 2**. All values are in millions of pounds.

Year	Atlantic Migratory Group		Atlantic Zone ACL		Atlantic Zone ACT	Gulf Migratory Group		Gulf Zone ACL	Gulf Zone ACT
	OFL	ABC	Commercial	Recreational	Recreational	OFL	ABC	Stock	Stock
2014	0.81	0.73	0.06	0.67	0.55	2.56	2.46	2.46	2.21
2015	0.76	0.69	0.06	0.63	0.52	2.59	2.52	2.52	2.27
2016	0.73	0.67	0.05	0.62	0.50	2.66	2.60	2.60	2.34

Preferred Alternative 3 compensates for the difference in the biological boundary and the management boundary by creating a Florida East Coast Zone for cobia (Figure 2.6.1). This cobia zone would be similar to the king mackerel Florida East Coast Subzone in that the fish would be Gulf migratory group fish and part of the Gulf ABC, but would have a separate ACL and be managed by the South Atlantic Council. The cobia zone would differ from the king mackerel subzone in that it would remain the same year-round without a boundary shift. In essence, **Alternative 3** would take the portion of the Gulf ABC attributable to the Florida east coast and allow the South Atlantic Council to set management measures, as they have historically done for this area.

To determine to the appropriate proportion of the Gulf migratory group ABC to assign to the Florida East Coast Zone, landings from various time periods could be used. **Alternative 3 Options a**, **b**, and **Preferred Option d** propose to use historical landings ranges of 10, 5, and 15 years, respectively, all terminating in 2012. Compared to **Alternative 1**, **Alternative 3 Option a** and **Preferred Option d** would result in an increase to the Gulf ACL while **Option b** would result in a decrease. When compared to landings history for the Florida East Coast, the level of quota available to fishermen on the Florida East Coast Zone would increase under **Options a** and **b**, and **Preferred Option d**. **Options c**, **e**, and **f** would use 50% of landings from recent years and 50% of landings from a longer time period. **Options c, e**, and **f** all result in an increase in the Gulf ACL, while the combined Florida East Coast Zone and South Atlantic ACL would decrease only under **Options e** and **f**. The proportion of landings for the Florida East Coast Zone for each option is shown in Table 2.6.2.

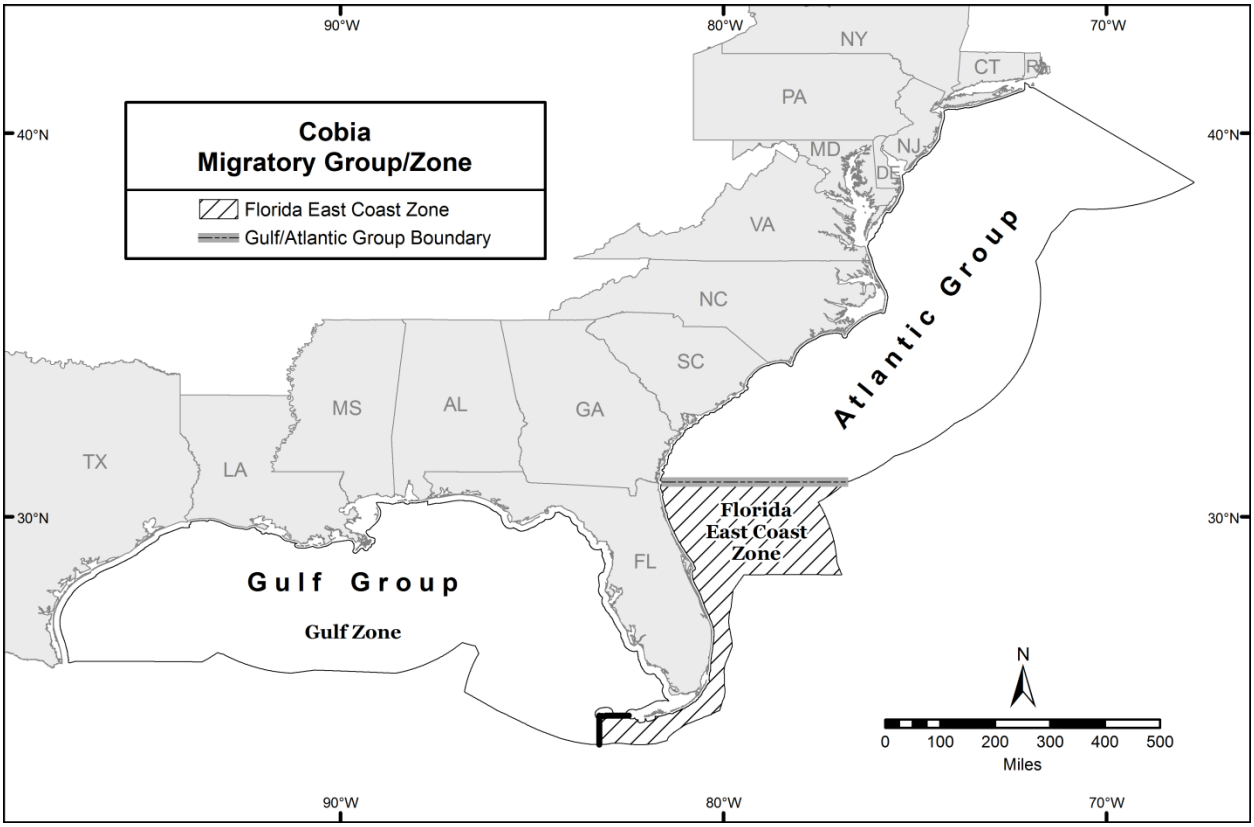

Figure 2.6.1. Cobia zones proposed in Alternative 3.

Table 2.6.2. Landings for the Gulf migratory group cobia (as defined by SEDAR 28) for each option in **Preferred Alternative 3** and the percentage attributable to the Florida east coast. The Florida East Coast Zone (FLEC) would range from the FL/GA border to the Council jurisdictional boundary in the Florida Keys. The Gulf zone would range from the TX/Mexico border to the Council jurisdictional boundary.

		Landings (lbs ww)			
Option	**Method/Years**	**Gulf Total**	**FLEC Zone**	**Gulf Zone**	**% FLEC Zone**
a	Average (2003-2012)	1,732,052	633,563	1,098,490	36.6
b	Average (2008-2012)	1,528,211	671,623	856,588	43.9
c	(0.5*(Average (2003-2012)))+ (0.5*(Average (2008-2012)))	1,630,132	652,593	977,539	40.0
d	Average (1998-2012)	1,729,311	623,255	1,106,056	36.0
e	(0.5*(Average (1993-2008)))+ (0.5*(Average (2006-2008)))	1,804,756	577,702	1,227,054	32.0
f	(0.5*(Average (1990-2008)))+ (0.5*(Average (2006-2008)))	1,794,279	580,520	1,213,760	32.4

Source: Southeast Fisheries Science Center, Accumulated Landings System and Marine Recreational Information Program databases

The percent of historical landings coming from the Florida East Coast Zone in Table 2.6.2 would be applied to the Gulf migratory group ABC to obtain the ACL for the Florida East Coast Zone (FLEC ACL = x% ABC). The Gulf Zone ACL would be the remainder (Gulf ACL = Gulf ABC - FLEC ACL). The ACLs for each option are shown in Table 2.6.3. The Gulf Council chose to manage the cobia stock under a combined ACL for both the recreational and commercial sectors. They also chose to set a stock ACT that is 90% of the stock ACL. The South Atlantic Council chose to manage the commercial and recreational sectors separately and set an allocation of 8% commercial and 92% recreational. They also chose to set a recreational ACT, but not a commercial ACT. The allocations and ACTs set by the South Atlantic Council would apply to the Florida East Coast Zone. The ACLs and ACTS for the Atlantic migratory group would be the same for **Preferred Alternative 3** as **Alternative 2**, regardless of the option chosen (Table 2.6.1).

Table 2.6.3. ACLs and ACTs for Gulf migratory group cobia (as recommended by the Gulf SSC, based on results from SEDAR 28) for each option in **Preferred Alternative 3**. Management measures set by the South Atlantic Council for the Atlantic migratory group would also apply to the Gulf migratory group Florida East Coast Zone (FLEC). All weights for OFL, ABC, ACL, and ACT are in millions of pounds, whole weight. Note: ACLs and ACTs for the Atlantic migratory group would be the same as in **Alternative 2** and are shown in Table 2.6.1.

Option	% landings from FLEC	Year	Gulf Migratory Group		FLEC Zone ACL		FLEC Zone ACT	Gulf Zone ACL	Gulf Zone ACT
			OFL	ABC	Commercial	Recreational	Recreational	Stock	Stock
Opt a	36.6	2014	2.56	2.46	0.07	0.83	0.68	1.56	1.40
		2015	2.59	2.52	0.07	0.85	0.69	1.60	1.44
		2016	2.66	2.60	0.08	0.88	0.72	1.65	1.48
Opt b	43.9	2014	2.56	2.46	0.09	0.99	0.81	1.38	1.24
		2015	2.59	2.52	0.09	1.02	0.83	1.41	1.27
		2016	2.66	2.60	0.09	1.05	0.86	1.46	1.31
Opt c	40	2014	2.56	2.46	0.08	0.91	0.74	1.48	1.33
		2015	2.59	2.52	0.08	0.93	0.76	1.51	1.36
		2016	2.66	2.60	0.08	0.96	0.78	1.56	1.40
Opt d	36	2014	2.56	2.46	0.07	0.81	0.67	1.57	1.42
		2015	2.59	2.52	0.07	0.83	0.68	1.61	1.45
		2016	2.66	2.60	0.07	0.86	0.71	1.66	1.50
Opt e	32	2014	2.56	2.46	0.06	0.72	0.59	1.67	1.51
		2015	2.59	2.52	0.06	0.74	0.61	1.71	1.54
		2016	2.66	2.60	0.07	0.77	0.63	1.77	1.59
Opt f	32.4	2014	2.56	2.46	0.06	0.73	0.60	1.66	1.50
		2015	2.59	2.52	0.07	0.75	0.62	1.70	1.53
		2016	2.66	2.60	0.07	0.78	0.63	1.76	1.58

Council Conclusions:

The results of the SEDAR 28 stock assessment on Gulf cobia (SEDAR 2013a) determined the biological northern boundary of the Gulf migratory stock to be north of Brevard County, Florida, with the northern delineation set at the Florida/Georgia state line for management purposes. The results from the stock assessments showed that the Gulf and Atlantic migratory groups are healthy and capable of supporting increasing landings over the next few years. To take advantage of these healthy stocks, the Councils selected **Preferred Alternative 3 Option d**, which establishes a Gulf jurisdictional ACL and an ACL for the eastern coast of Florida as percentages of the Gulf migratory group ACL. Under this preferred alternative, 36% of the Gulf

migratory group ACL would be apportioned to the east coast of Florida based on average landings over the last 15 years (1998-2012), and would be managed by the South Atlantic Council according to provisions preferred by both Councils in Action 5. This option offers increases in the current ACLs for both Councils, and was viewed as a fair and equitable distribution of the resource.

CHAPTER 3. AFFECTED ENVIRONMENT

3.1 Description of the Fishery and Status of the Stocks

Two migratory groups, Gulf of Mexico (Gulf) and Atlantic, are recognized for king mackerel and Spanish mackerel. Commercial landings data come from the Southeast Fisheries Science Center (SEFSC) Accumulated Landings System (ALS), the Northeast Fisheries Science Center (NEFSC) Commercial Fisheries Data Base System (CFDBS), and the SEFSC Coastal Fisheries Logbook (CFL) database. Recreational data come from the Marine Recreational Fisheries Statistics Survey (MRFSS), the Marine Recreational Information Program (MRIP), the Headboat Survey (HBS), and the Texas Parks and Wildlife Department (TPWD).

3.1.1 Description of the Fishery

A detailed description of the coastal migratory pelagic (CMP) fishery was included in Amendment 18 to the Fishery Management Plan for Coastal Migratory Pelagic Resources in the Gulf of Mexico and Atlantic Region (FMP) (GMFMC and SAFMC 2011) and is incorporated here by reference, as well as further summarized below. Amendment 18 can be found at http://www.gulfcouncil.org/docs/amendments/Final%20CMP%20Amendment%2018%20092311%20w-o%20appendices.pdf.

King Mackerel

A federal king mackerel commercial vessel permit is required to retain king mackerel in excess of the bag limit in federal waters of the Gulf and Atlantic. These permits are limited access. In addition, a limited-access gillnet permit is required to use gillnets in the Gulf Southern Subzone. For-hire vessels must have either a Gulf or South Atlantic charter/headboat CMP vessel permit, depending on where they fish. The Gulf permit is limited access, but the South Atlantic permit is open access. The commercial permits have an income requirement of 25% of earned income or $10,000 from commercial or charter/headboat fishing activity in one of the three calendar years preceding the application. As of April 4, 2013, there were 1,488 valid or renewable federal commercial king mackerel permits.

For the commercial sector, the area occupied by Gulf migratory group king mackerel is divided into Western and Eastern zones. The Western Zone extends from the southern border of Texas to the Alabama/Florida state line. The fishing year for this zone is July 1 through June 30.

The Eastern Zone, which includes only waters off Florida, is divided into the East Coast and West Coast Subzones (Figure 3.1.1.1A). The East Coast Subzone is from the Flagler/Volusia county line south to the Miami-Dade/Monroe county line and only exists from November 1 through March 31, when Gulf migratory group king mackerel migrate into that area. During the rest of the year, king mackerel in that area are considered part of the Atlantic migratory group (Figure 3.1.1.1B).

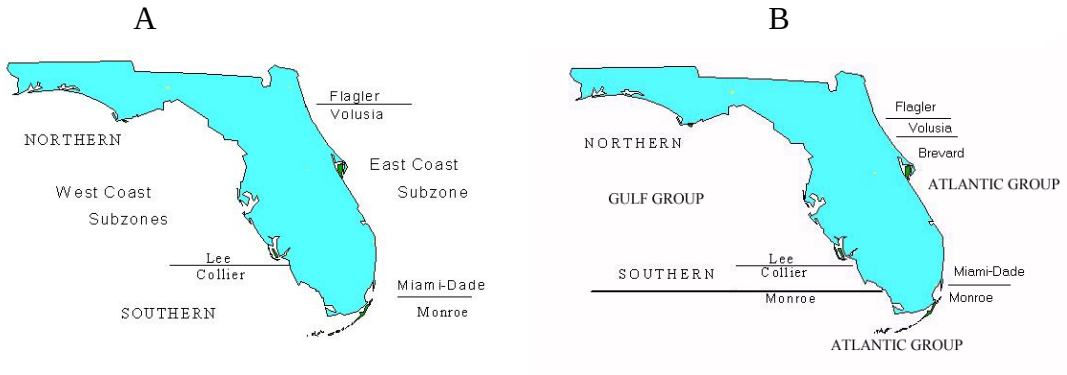

Figure 3.1.1.1. Gulf migratory group king mackerel Eastern Zone Subzones for A) November 1 – March 31, and B) April 1- October 31.

The West Coast Subzone, from the Alabama/Florida state line to the Monroe/Miami-Dade county line, is further divided into Northern and Southern Subzones at the Lee/Collier county line. The fishing year for hook-and-line gear in both regions runs July 1-June 30; in the Southern Subzone, the gillnet season opens on the day after the Martin Luther King, Jr. holiday. Gillnet fishing is allowed during the first weekend thereafter, but not on subsequent weekends.

Management measures for the South Atlantic apply to king mackerel from New York to the east coast of Florida. The Atlantic migratory group king mackerel fishing year is March 1 through end of February. This migratory group is not divided into zones; however, different areas have different trip limits at different times of the year.

Commercial landings of Gulf migratory group king mackerel increased as the total commercial quota for the Gulf increased until 1997/1998 when the quota was set at 3.39 million pounds (mp). After that, landings have been relatively steady at around 3.3 mp. The quota was decreased to 3.26 mp starting with the 2000/2001 season. Commercial landings of Atlantic king mackerel have also increased in recent years. The annual average for 2008/2009-2010/2011 was 3.6 mp versus 2.8 mp for the previous ten years (Table 3.1.1.1). However, the landings for the 2011/2012 fishing year were lower than recent years, especially for the Atlantic migratory group.

Table 3.1.1.1. Annual commercial landings of king mackerel.

Fishing Year	Landings (lbs)	
	Gulf	Atlantic
2000/2001	3,079,256	2,101,530
2001/2002	2,932,532	2,017,251
2002/2003	3,231,723	1,737,833
2003/2004	3,183,778	1,708,341
2004/2005	3,228,862	2,734,198
2005/2006	3,011,990	2,250,990
2006/2007	3,232,497	2,994,818
2007/2008	3,449,030	2,667,227
2008/2009	3,867,599	3,107,996
2009/2010	3,816,157	3,564,108
2010/2011	3,539,492	3,405,650

Source: SEFSC, ALS database; NEFSC, CFDBS database.

King mackerel have long been a popular target for recreational fishermen. The recreational sector is allocated 68% of the Gulf annual catch limit (ACL) and 62.9% of the Atlantic ACL. From the late 1980s to the late 1990s, Gulf recreational landings averaged about 4.9 mp per year. In the most recent five years, average annual landings have been about 2.8 mp. The recent five-year average for the Atlantic migratory group recreational landings is 4.9 mp per year (Table 3.1.1.2); however, landings of the Atlantic migratory group are variable over the time period.

Table 3.1.1.2. Annual recreational landings of king mackerel.

Fishing Year	Landings (lbs)	
	Gulf	Atlantic
2000/2001	3,121,584	6,184,541
2001/2002	3,668,540	5,035,061
2002/2003	2,817,537	4,574,235
2003/2004	3,211,497	4,979,506
2004/2005	2,528,457	5,321,449
2005/2006	2,995,716	4,457,679
2006/2007	3,305,567	5,127,178
2007/2008	2,626,527	7,128,545
2008/2009	2,352,510	4,228,245
2009/2010	3,523,777	4,394,015
2010/2011	2,182,980	2,692,771

Source: SEFSC, MRFSS, HBS, and TPWD databases.

Spanish Mackerel

A commercial Spanish mackerel permit is required for vessels fishing in the Gulf or South Atlantic. This permit is open access. To obtain or renew the commercial permit, at least 25% of the applicant's earned income, or $10,000, must have come from commercial or charter/headboat fishing activity in one of the previous three calendar years. For-hire vessels must have a limited

access charter/headboat CMP permit to harvest Spanish mackerel. As of April 4, 2013, there were 1,748 valid or renewable federal commercial Spanish mackerel permits.

Gulf migratory group Spanish mackerel are considered a single stock throughout the Gulf from the southern border of Texas to the Miami-Dade/Monroe county border on the east coast of Florida. A single ACL for both commercial and recreational sectors was implemented through Amendment 18 (GMFMC and SAFMC 2011) beginning with the 2012/2013 fishing year. Before that, the commercial and recreational sectors had separate quotas. The fishing year is April 1- March 31.

The area of the Atlantic migratory group of Spanish mackerel is divided into two areas: the one area includes waters off New York through Georgia, and the other area includes waters off the east coast of Florida. One quota is set for both areas, which is adjusted for management purposes. The fishing year for Atlantic migratory group Spanish mackerel is March-February. This fishing year was implemented in August 2005; before then, the fishing year was April 1 – March 31. Because of the change in fishing year, the 2005/2006 fishing year has only 11 months of landings and has been normalized for comparison with other years.

Landings compiled for the SEDAR 28 stock assessment (2013b, 2013d) divide the two migratory groups at the boundary between the Gulf of Mexico and South Atlantic Fishery Management Councils (Councils) (the line of demarcation between the Atlantic Ocean and the Gulf), although the management boundary is at the Dade/Monroe County line. Additionally, landings were compiled by calendar year rather than fishing year. For consistency with previous analyses, landings based on the correct boundary and calendar year are included here.

Commercial landings over the past five years have varied, averaging 1.3 mp annually in the Gulf and 3.7 mp annually in the Atlantic. Commercial landings of Spanish mackerel have general been increasing in the Atlantic over the last decade (Table 3.1.1.3).

Table 3.1.1.3. Annual commercial landings of Spanish mackerel.

	Landings (lbs)	
Fishing Year	**Gulf**	**Atlantic**
2000-2001	868,171	2,855,805
2001-2002	782,227	3,091,117
2002-2003	1,707,950	3,257,807
2003-2004	883,090	3,763,769
2004-2005	1,958,155	3,379,347
2005-2006	888,379	3,908,607
2006-2007	1,472,307	3,654,655
2007-2008	863,871	3,086,792
2008-2009	2,273,248	3,190,881
2009-2010	916,614	4,208,116
2010-2011	1,219,484	4,592,708

Source: SEFSC, ALS database; NEFSC, CFDBS database.
*Note: For 1999/2000-2004/2005, the Atlantic fishing year is Apr 1 – Mar 31; for 2006/2007-2009/2010, the fishing year is Mar 1 – Feb 28.

Recreational catches of Spanish mackerel in the Gulf have remained rather stable since the early 1990's at around 2.0 to 3.0 mp, despite increases in the bag limit from three fish in 1987 to 10 fish in 1992 to 15 fish in 2000. Recreational landings in the Atlantic also have remained fairly steady over time and averaged around 1.9 mp during the most recent five years (Table 3.1.1.4). The recreational allocation in the Atlantic is 45%.

Table 3.1.1.4. Annual recreational landings of Spanish mackerel.

	Landings (lbs)	
Fishing Year	**Gulf**	**Atlantic**
2000-2001	2,787,773	2,306,607
2001-2002	3,452,981	2,046,039
2002-2003	3,171,235	1,640,822
2003-2004	2,742,270	1,853,294
2004-2005	2,665,269	1,359,360
2005-2006	1,595,375	1,648,291
2006-2007	2,845,347	1,653,413
2007-2008	2,724,757	1,710,276
2008-2009	2,525,443	2,046,806
2009-2010	1,890,143	2,107,213
2010-2011	2,964,339	1,763,640

Source: SEFSC, ACL data sets; MRFSS, HBS, TPWD.

Cobia

Currently, no commercial vessel permit is required for harvest or sale of cobia. For-hire vessels must have a charter/headboat CMP permit to land cobia. The regulations in the FMP also apply to cobia in the Mid-Atlantic region. Two migratory groups of cobia were created through Amendment 18 (GMFMC and SAFMC 2011), with the division occurring at the Council boundary in Monroe County, Florida. However, the data workshop for SEDAR 28 determined the division between migratory groups should be at the Florida/Georgia state line. The landings tables below use the SEDAR division; Action 6 addresses this difference in terms of the ACL.

Commercial landings have declined since the highest landings in 1996 (Vondruska 2010), with a steeper decline between 2004 and 2005, especially in the Gulf (Table 3.1.1.5). Recreational cobia landings have fluctuated during the past 10 years (Table 3.1.1.6).

Table 3.1.1.5. Annual commercial landings of cobia.

Fishing Year	Landings (lbs)	
	Gulf	Atlantic
2000	212,010	43,532
2001	177,866	40,791
2002	183,531	42,236
2003	194,833	35,305
2004	179,290	32,650
2005	136,851	28,675
2006	151,045	33,785
2007	147,187	31,576
2008	139,413	33,783
2009	137,305	42,278
2010	194,933	56,544
2011	238,799	33,978

Source: SEDAR 28; ALS database.

Table 3.1.1.6. Annual recreational landings of cobia.

Fishing Year	Landings (lbs)	
	Gulf	Atlantic
2000	1,508,489	464,236
2001	1,555,656	483,926
2002	1,227,708	381,849
2003	2,060,423	615,522
2004	2,090,425	1,028,231
2005	1,461,039	815,600
2006	1,572,637	1,231,415
2007	1,685,402	776,180
2008	1,312,126	546,297
2009	996,105	711,821
2010	1,317,728	876,505
2011	1,683,588	330,071

Source: SEDAR 28; MRFSS, HBS, and TPWD databases.

3.1.2 Status of Stocks

King Mackerel

Both the Gulf and Atlantic migratory groups of king mackerel were assessed by the Southeast Data, Assessment, and Review (SEDAR) process in 2008/2009 (SEDAR 16 2009), and will be assessed again by SEDAR 38 in 2013/2014. The SEDAR 16 assessment determined the Gulf migratory group of king mackerel was not overfished and was uncertain whether the Gulf migratory group was experiencing overfishing. Subsequent analyses showed that $F_{Current}/F_{MSY}$ has been below 1.0 since 2002. Consequently, the most likely conclusion is the Gulf migratory

group king mackerel stock is not undergoing overfishing. Atlantic migratory group king mackerel were also determined not overfished however, it was uncertain whether overfishing is occurring, and thought to be at a low level if it is occurring.

Spanish Mackerel

The benchmark stock assessment for Spanish mackerel (SEDAR 28 2013b, 2013d) was completed and reviewed by the South Atlantic Council's Scientific and Statistical Committee (SSC) in April 2013 and by the Gulf Council's SSC in August 2013. Both SSCs made recommendations to the respective Councils for overfishing level (OFL) and acceptable biological catch (ABC). The SEDAR 28 stock assessment for South Atlantic migratory group Spanish mackerel (2013d) determined that the stock is not overfished or experiencing overfishing. The Gulf Council's review (GMFMC 2013b) of the SEDAR 28 stock assessment of Gulf migratory group Spanish mackerel (2013b) determined that the stock was not overfished or experiencing overfishing.

Cobia

Both the Gulf and Atlantic migratory groups of cobia were assessed by SEDAR 28 in 2013. The SEDAR 28 stock assessment for Atlantic migratory group cobia (2013c) determined that the stock is not overfished or experiencing overfishing. The Gulf Council's review (GMFMC 2013a) of the SEDAR 28 stock assessment of Gulf migratory group cobia (2013a) determined that the stock was not overfished or experiencing overfishing.

3.2 Description of the Physical Environment

3.2.1 Gulf of Mexico

The Gulf has a total area of approximately 600,000 square miles (1.5 million km^2), including state waters (Gore 1992). It is a semi-enclosed, oceanic basin connected to the Atlantic Ocean by the Straits of Florida and to the Caribbean Sea by the Yucatan Channel. Oceanic conditions are primarily affected by the Loop Current (Figure 3.2.1.1), the discharge of freshwater into the northern Gulf, and a semi-permanent, anti-cyclonic gyre in the western Gulf.

The Gulf is both a warm temperate and a tropical body of water (McEachran and Fechhelm 2005). Based on satellite derived measurements from 1982 through 2009, mean annual sea surface temperature ranged from 73 through 83º F (23-28º C) including bays and bayous (Figure 3.2.1.1). In general, mean sea surface temperature increases from north to south depending on time of year with large seasonal variations in shallow waters (NODC 2012: http://accession.nodc.noaa.gov/0072888).

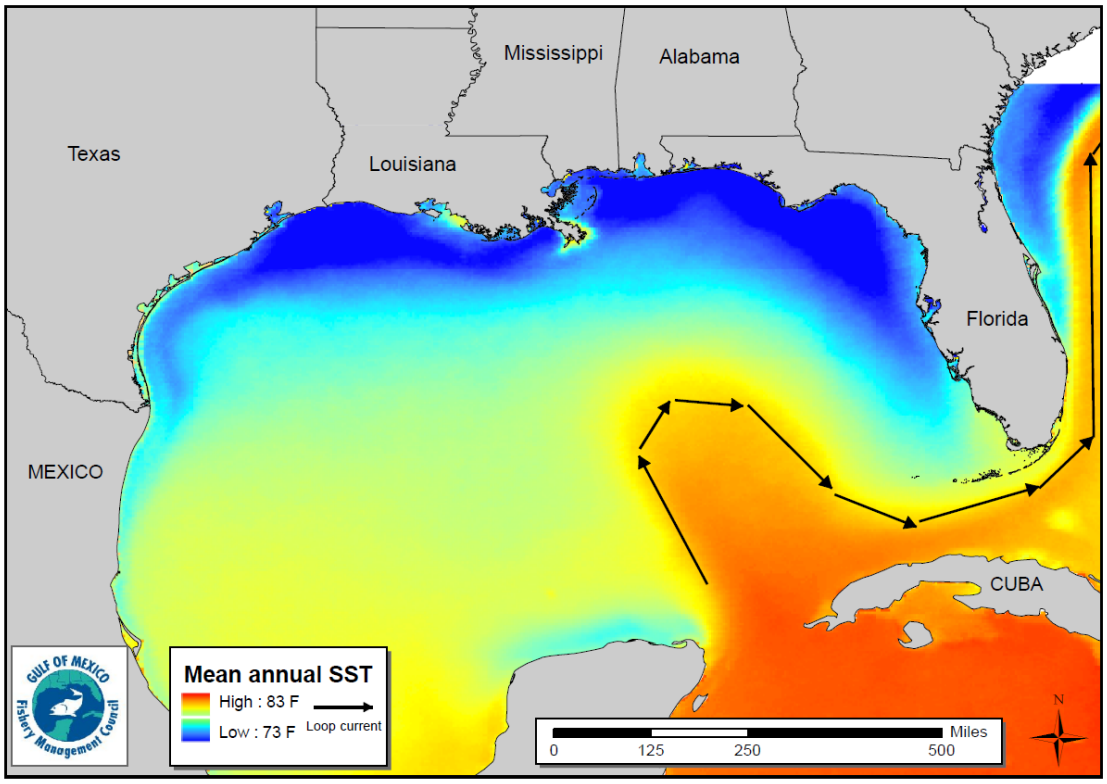

Figure 3.2.1.1. Mean annual sea surface temperature derived from the Advanced Very High Resolution Radiometer Pathfinder Version 5 sea surface temperature data set (http://pathfinder.nodc.noaa.gov).

Environmental Sites of Special Interest Relevant to CMP species (Figure 3.2.1.2)

The following area closures include gear restrictions that may affect targeted and incidental harvest of CMP species.

Madison-Swanson and Steamboat Lumps Marine Reserves - No-take marine reserves (total area is 219 nm^2 or 405 km^2) sited based on gag spawning aggregation areas where all fishing is prohibited except surface trolling from May through October (GMFMC 1999; 2003).

The Edges Marine Reserve – All fishing is prohibited in this area (390 nm^2 or 1,338 km^2) from January through April and possession of any fish species is prohibited, except for such possession aboard a vessel in transit with fishing gear stowed as specified. The provisions of this do not apply to highly migratory species (GMFMC 2008).

Tortugas North and South Marine Reserves - No-take marine reserves (185 nm^2) cooperatively implemented by the state of Florida, National Ocean Service, the Gulf of Mexico Fishery Management Council (Council), and the National Park Service in Generic Amendment 2 Establishing the Tortugas Marine Reserves (GMFMC 2001).

Reef and bank areas designated as Habitat Areas of Particular Concern (HAPCs) in the northwestern Gulf include - East and West Flower Garden Banks, Stetson Bank, Sonnier Bank, MacNeil Bank, 29 Fathom, Rankin Bright Bank, Geyer Bank, McGrail Bank, Bouma Bank, Rezak Sidner Bank, Alderice Bank, and Jakkula Bank - Pristine coral areas protected by preventing the use of some fishing gear that interacts with the bottom and prohibited use of anchors (totaling 263.2 nm^2 or 487.4 km^2). Subsequently, three of these areas were established as marine sanctuaries (i.e., East and West Flower Garden Banks and Stetson Bank). Bottom anchoring and the use of trawling gear, bottom longlines, buoy gear, and all traps/pots on coral reefs are prohibited in the East and West Flower Garden Banks, McGrail Bank, and on significant coral resources on Stetson Bank (GMFMC 2005). A weak link in the tickler chain of bottom trawls on all habitats throughout the Gulf exclusive economic zone (EEZ) is required. A weak link is defined as a length or section of the tickler chain that has a breaking strength less than the chain itself and is easily seen as such when visually inspected. An education program for the protection of coral reefs when using various fishing gears in coral reef areas for recreational and commercial fishermen was also developed.

Florida Middle Grounds HAPC - Pristine soft coral area (348 nm^2 or 644.5 km^2) that is protected by prohibiting the following gear types: bottom longlines, trawls, dredges, pots and traps (GMFMC and SAFMC 1982).

Pulley Ridge HAPC - A portion of the HAPC (2,300 nm^2 or 4,259 km^2) where deepwater hermatypic coral reefs are found is closed to anchoring and the use of trawling gear, bottom longlines, buoy gear, and all traps/pots (GMFMC 2005).

Alabama Special Management Zone – For vessels operating as a charter vessel or headboat, a vessel that does not have a commercial permit for Gulf reef fish, or a vessel with such a permit fishing for Gulf reef fish, fishing is limited to hook-and-line gear with no more than three hooks. Nonconforming gear is restricted to recreational bag limits, or for reef fish without a bag limit, to 5% by weight of all fish aboard (GMFMC 1993).

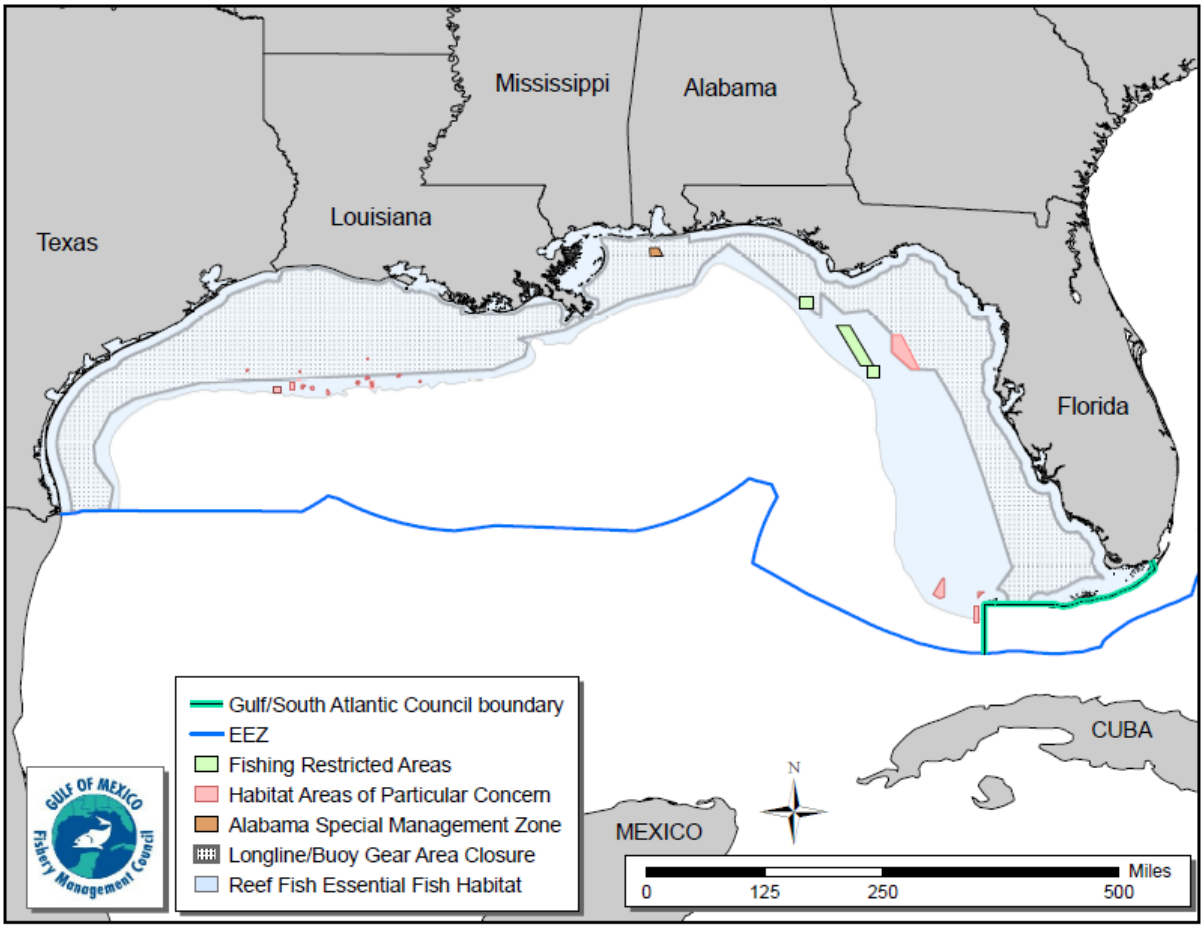

Figure 3.2.1.2. Map of most fishery management closed areas in the Gulf.

The Deepwater Horizon MC252 oil spill affected at least one-third of the Gulf from western Louisiana east to the Florida Panhandle and south to the Campeche Bank of Mexico. Oil flowed from the ruptured wellhead at a rate of 52,700 – 62,200 barrels/day for a total of 4,928,100 barrels (www.restorethegulf.gov 2010). The impacts of the Deepwater Horizon MC252 oil spill on the physical environment may be significant and long-term. Oil was dispersed on the surface, and because of the heavy use of dispersants (both at the surface and at the wellhead), oil was also documented as being suspended within the water column (Camilli et al. 2010; Kujawinski et al. 2011). Floating and suspended oil washed onto coastlines in several areas of the Gulf along with non-floating tar balls. Whereas suspended and floating oil degrades over time, tar balls are persistent in the environment and can be transported hundreds of miles (Goodman 2003).

Surface or submerged oil during the Deepwater Horizon MC252 oil spill event could have restricted the normal processes of atmospheric oxygen mixing into and replenishing oxygen concentrations in the water column, thus affecting the long-standing hypoxic zone located west of the Mississippi River on the Louisiana continental shelf (NOAA 2010). Research by Hazen et al. (2010), however, has indicated that microbial biodegradation of hydrocarbons in the water column may have occurred without substantial oxygen drawdown. Residence time of hydrocarbons in sediments is also a point of interest. Among the indices developed for past oil

spills (Harper 2003) and oil spill scenarios (National Environmental Research Institute 2011) is the "oil residence index"; however, this index does not appear to have been utilized during the assessment of the Deepwater Horizon MC252 oil spill.

Most recently, the Associated Press reported on September 6, 2012 that researchers from Louisiana State University had linked oil discovered on Elmer's Island and Grand Isle to the Deepwater Horizon MC252 oil spill after the landfall and dissipation of Hurricane Isaac (Burdeau and Reeves 2012).

3.2.2 South Atlantic

The South Atlantic Council has management jurisdiction of the federal waters (3-200 nm) offshore of North Carolina, South Carolina, Georgia, and Florida. The continental shelf off the southeastern U.S., extending from the Dry Tortugas, Florida, to Cape Hatteras, North Carolina, encompasses an area in excess of 100,000 km^2 (Menzel 1993). Based on physical oceanography and geomorphology, this environment can be divided into two regions: Dry Tortugas, Florida, to Cape Canaveral, Florida; and Cape Canaveral, Florida, to Cape Hatteras, North Carolina. The continental shelf from the Dry Tortugas, Florida, to Miami, Florida, is approximately 25 km wide and narrows to approximately 5 km off Palm Beach, Florida. The shelf then broadens to approximately 120 km off of 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 greatly influences the oceanographic characteristics of the entire shelf (Lee et al. 1994).

In the northern region, additional physical processes are important and the shelf environment can be subdivided into three oceanographic zones (Atkinson et al. 1985; Menzel 1993), the outer shelf, mid-shelf, and inner shelf. The outer shelf (40-75 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 found are: Gulf Stream water; Carolina Capes water; Georgia water; and Virginia coastal water.

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). There are a large number of fishes that 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 actions are 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.

3.3 Description of the Biological/Ecological Environment

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

On April 20, 2010, an explosion occurred on the Deepwater Horizon MC252 oil rig, resulting in the release of an estimated 4.9 million barrels of oil into the Gulf. In addition, 1.84 million gallons of Corexit 9500A dispersant were applied as part of the effort to constrain the spill. The cumulative effects from the oil spill and response may not be known for several years. The highest concern is that the oil spill may have impacted the spawning success of species that spawn in the summer months, either by reducing spawning activity or by reducing survival of the eggs and larvae. The oil spill occurred during spawning months for every species in the CMP FMP; however, most species have a protracted spawning period that extends beyond the months of the oil spill.

Species in the FMP are migratory and move into specific areas to spawn. King mackerel, for example, move from the southern portion of their range to more northern areas for the spawning season. In the Gulf, that movement is from Mexico and south Florida to the northern Gulf (Godcharles and Murphy 1986). However, environmental factors, such as temperature, can change the timing and extent of their migratory patterns (Williams and Taylor 1980). The possibility exists that mackerel would be able to detect environmental cues when moving toward the area of the oil spill that would prevent them from entering the area. These fish might then remain outside the area where oil was in high concentrations, but still spawn.

If eggs and larvae were affected, impacts on harvestable-size CMP species would begin to be seen when the 2010 year class becomes large enough to enter the fishery and be retained. King mackerel and cobia mature at ages of 2-3 years and Spanish mackerel mature at age 1-2; therefore, a year class failure in 2010 could be noted as early as 2011 or 2012. The impacts would be realized as reduced fishing success and reduced spawning potential, and would need to be taken into consideration in the next SEDAR assessment.

The oil and dispersant from the spill may have had direct negative impacts on egg and larval stages. Oil present in surface waters could affect the survival of eggs and larvae, affecting future recruitment. Effects on the physical environment such as low oxygen and the inter-related effects that culminate and magnify through the food web could lead to impacts on the ability of larvae and post-larvae to survive, even if they never encounter oil. In addition, effects of oil exposure may not always be lethal, but can create sub-lethal effects on the early life stages of

fish. A 2014 study (Incardona et al 2014), embryos of bluefin tuna, yellowfin tuna, and amberjack exposed to environmentally realistic levels of hydrocarbons showed defects in heart function. Other studies of the effects of hydrocarbon are ongoing. There is the potential that the stressors can be additive, and each stressor may increase the susceptibility to the harmful effects of the other.

The oil spill resulted in the development of major monitoring programs by the National Marine Fisheries Service (NMFS) and other agencies, as well as by numerous research institutions. Of particular concern was the potential health hazard to humans from consumption of contaminated fish and shellfish. The National Oceanic and Atmospheric Administration, the Food and Drug Administration, the Environmental Protection Agency, and the Gulf states implemented a comprehensive, coordinated, multi-agency program to ensure that seafood from the Gulf is safe to eat. In response to the expanding area of the Gulf surface waters covered by the spill, NMFS issued an emergency rule to temporarily close a portion of the Gulf EEZ to all fishing to ensure seafood safety. The initial closed area (May 2, 2010) extended from approximately the mouth of the Mississippi River to south of Pensacola, Florida, and covered an area of 6,817 square statute miles. The coordinates of the closed area were subsequently modified periodically in response to changes in the size and location of the area affected by the spill. At its largest size on June 2, 2010, the closed area covered 88,522 square statute miles, or approximately 37% of the Gulf EEZ.

The mackerel family (Scombridae) includes tunas, mackerels and bonitos, which are among the most important commercial and sport fishes. The habitat of adults in the CMP management unit is the coastal waters out to the edge of the continental shelf in the Atlantic Ocean. Within the area, the occurrence of CMP species is governed by temperature and salinity. All species are seldom found in water temperatures less than 20°C. Salinity preference varies, but these species generally prefer high salinity, less than 36 parts per trillion (ppt). Salinity preference of cobia is not well defined. The habitat for eggs and larvae of all species in the CMP management unit is the water column. Within the spawning area, eggs and larvae are concentrated in the surface waters.

King Mackerel

King mackerel is a marine pelagic species that is found throughout the Gulf and Caribbean Sea and along the western Atlantic from the Gulf of Maine to Brazil and from the shore to 200 m depths. Adults are known to spawn in areas of low turbidity, with salinity and temperatures of approximately 30 ppt and 27°C, respectively. There are major spawning areas off Louisiana and Texas in the Gulf (McEachran and Finucane 1979); and off the Carolinas, Cape Canaveral, and Miami in the western Atlantic (Wollam 1970; Schekter 1971; Mayo 1973).

Spanish Mackerel

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

Cobia

Cobia is a member of the family Rachycentridae but is managed in the CMP FMP because of its migratory behavior. Cobia is distributed worldwide in tropical, subtropical and warm-temperate waters. In the western Atlantic it occurs from Nova Scotia, Canada, south to Argentina, including the Caribbean Sea. It is abundant in warm waters off the coast of the U.S. from the Chesapeake Bay south and throughout the Gulf. Cobia prefer water temperatures between 68-86°F. Seeking shelter in harbors and around wrecks and reefs, cobia is often found off south Florida and the Florida Keys. As a pelagic fish, cobia are found over the continental shelf as well as around offshore reefs. It prefers to reside near any structure that interrupts the open water such as pilings, buoys, platforms, anchored boats, and flotsam. Cobia is also found inshore inhabiting bays, inlets, and mangroves.

3.3.1 Reproduction

King Mackerel

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, with a peak between late May and early July with another between late July and early August. Maturity may first occur when the females are 450 to 499 mm (17.7 to 19.6 inches) in length and usually occurs by the time they are 800 mm (35.4 inches) in length. The most mature ovaries are found in females by about age 4. Males are usually sexually mature at age 3, at a length of 718 mm (28.3 inches). Females in U.S. waters, between the sizes of 446-1,489 mm (17.6 to 58.6 inches) release 69,000-12,200,000 eggs. There is some thought that they are reproductively isolated groups because both the Atlantic and Gulf populations spawn while in the northernmost parts of their ranges.

Larvae of king mackerel have been found in waters with temperatures between 26-31° C (79-88° F). This larval developmental stage has a short duration. King mackerel can grow up to 0.54-1.33 mm (0.02 to 0.05 inches) per day. This shortened larval stage decreases the vulnerability of the larva, and is related to the increased metabolism of this fast-swimming species.

Spanish Mackerel

Spawning occurs along the inner continental shelf from April to September (Powell 1975). Eggs and larvae occur most frequently offshore over the inner continental shelf at temperatures between 20°C to 32°C and salinities between 28 ppt and 37 ppt. They are also most frequently found in water depths from 9 m to about 84 m, but are most common in less than 50 m.

Cobia

Cobia form large aggregations, spawning during daylight hours between June and August in the Atlantic Ocean near the Chesapeake Bay, off North Carolina in May and June, and in the Gulf during April through September. Spawning frequency is once every 9-12 days, spawning 15-20 times during the season. During spawning, cobia undergo changes in body coloration from brown to a light horizontal-striped pattern, releasing eggs and sperm into offshore open water. Cobia have also been observed spawning in estuaries and shallow bays with the young heading offshore soon after hatching. Cobia eggs are spherical, averaging 1.24mm in diameter. Larvae are released approximately 24-36 hours after fertilization.

3.3.2 Development, Growth and Movement Patterns

King Mackerel

Juveniles are generally found closer to shore than adults and occasionally in estuaries. 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. Food availability and water temperature are likely causes of these migratory patterns. King mackerel mature at approximately age 2 to 3 and have longevities of 24 to 26 years for females and 23 years for males (GMFMC and SAFMC 1985; MSAP 1996; Brooks and Ortiz 2004).

Spanish Mackerel

Juveniles are most often found in coastal and estuarine habitats and at temperatures greater than 25° C and salinities greater than10 ppt. Although they occur in waters of varying salinity, juveniles appear to prefer marine salinity levels and generally are not considered estuarine dependent. Like king mackerel, adult Spanish mackerel are migratory, generally moving from wintering areas of south Florida and Mexico to more northern latitudes in spring and summer. Spanish mackerel generally mature at age 1 to 2 and have a maximum age of approximately 11 years (Powell 1975).

Cobia

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

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

3.3.3 Protected Species

All sea turtle species occurring in the Atlantic Ocean are listed as either endangered or threatened under the Endangered Species Act (ESA). The alternatives discussed in this amendment may potentially affect five sea turtle species: the endangered leatherback, the endangered hawksbill, the endangered Kemp's ridley, the Northwest Atlantic distinct population segment (DPS) of the threatened loggerhead, and the threatened green, except for breeding populations of green turtles in Florida, which are listed as endangered.

The threatened Gulf sturgeon, the endangered shortnose sturgeon, the South Atlantic and Carolina DPS of the threatened Atlantic sturgeon, and the endangered smalltooth sawfish, also occur within the area encompassed by the alternatives analyzed within this amendment. Additionally, two threatened *Acropora* coral species, elkhorn and staghorn, can be found in areas off Florida.

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

Aside from the aforementioned protected species, portions of designated critical habitat for Gulf sturgeon, *Acropora* corals, and the North Atlantic Right Whale also occur within areas encompassed by the alternatives in this amendment.

In a 2007 biological opinion, NMFS determined the continued existence of endangered green, leatherback, hawksbill, and Kemp's ridley sea turtles, and threatened loggerhead sea turtles was not likely to be jeopardized by fishing for CMP species in the Southeastern United States. Other listed species are not likely to be adversely affected, including Endangered Species Act-listed whales, Gulf sturgeon, and *Acropora* corals. Since the completion of the 2007 consultation, five DPSs of Atlantic sturgeon became federally protected by the ESA. What affect the CMP fishery is likely to have on Atlantic sturgeon has never been analyzed in a Section 7 consultation; however, Atlantic sturgeon have been captured by fishermen fishing for CMP species in the past. Because of these past captures and the new protection for Atlantic sturgeon, ESA consultation was reinitiated in November 2012. NMFS has determined that allowing the continued operation of the CMP fishery under the existing fishery management regulations during the reinitiating period will not violate section 7(a)(2) or 7(d) of the ESA.

The Gulf and South Atlantic CMP hook-and-line fishery is classified in the 2013 Marine Mammal Protection Act List of Fisheries as a Category III fishery (78 FR 53336, August 29, 2013), 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 a Category II fishery. This classification indicates an occasional incidental mortality or serious injury of a marine mammal stock resulting from the fishery (1-50% annually of the potential biological removal). The fishery has no documented interaction with marine mammals; NMFS classifies this fishery as Category II based on analogy (i.e., similar risk to marine mammals) with other gillnet fisheries.

3.4 Description of the Economic Environment

3.4.1 Economic Description of the Commercial Fishery

An economic description of the commercial sector for the CMP species is contained in Vondruska (2010) and is incorporated herein by reference. Updated select summary statistics are provided in Table 3.4.1.1. Landings information is provided in Section 3.1.

Economic Activity
An alternative, regional perspective on the economics of the CMP fishery is an economic impact assessment or analysis. The desire to consume CMP species, and availability of these species generate economic activity as consumers spend their incomes on CMP-derived commodities (including services), such as king mackerel purchased at a local fish market and served during restaurant visits. This spurs additional economic activity in the region(s) where CMP species are purchased and fishing occurs, such as jobs in local fish markets, restaurants and fishing supply establishments. It should be clearly noted that, in the absence of CMP species for purchase, consumers would spend their incomes on substitute proteins and other commodities. As such, the economic impact analysis presented below represents a distributional analysis only; that is, it only shows how economic effects can be distributed through regional markets.

Estimates of the average annual economic activity (impacts) associated with the commercial fisheries for CMP species addressed in the amendment were derived using the model developed for and applied in NMFS (2009) and are provided in Table 3.4.1.2. Business activity for the commercial sector is characterized in the form of full-time equivalent jobs, income impacts (wages, salaries, and self-employed income), and output (sales) impacts (gross business sales). Income impacts should not be added to output (sales) impacts because this would result in double counting.

Table 3.4.1.1. Five-year average performance statistics for king mackerel, Spanish mackerel, and cobia from the Gulf and Atlantic migratory groups.

Species	Number of Vessels	Ex-vessel Value (millions)	Ex-vessel Value All Species (millions)	Average Ex-vessel Value per Vessel
King mackerel, Atlantic migratory group	776	$4.90	$27.24	$35,100
Spanish mackerel, Atlantic migratory group	387	$1.87	$11.99	$31,000
Cobia, Atlantic migratory group	432	$0.20	$17.99	$41,600
King mackerel, Gulf migratory group	662	$5.38	$32.06	$48,400
Spanish mackerel, Gulf migratory group	208	$0.28	$10.33	$49,700
Cobia, Gulf migratory group	266	$0.07	$30.38	$114,200

Notes: Each row should be interpreted individually, as there will be substantial double counting across rows in columns 2 and 4, e.g., the same vessel might fish for different migratory groups of the same or different species.
Five-year averages in column 3 are based on fishing years for king and Spanish mackerels (2007/2008, 2008/2009,…, 2011/2012) and for calendar years for cobia (2008-2012).
Five-year averages in column 4 are based on calendar years (2007-2011).
All value analyses account for inflation by adjusting dollar amounts reported from 2007-2012 (i.e., current dollars) to 2011 dollars (i.e., constant dollars) using price indices from the Bureau of Labor Statistics, specifically SERIES CUUR0000SA0, CPI-U, ALL ITEMS, NOT SEASONALLY ADJUSTED, BASE=1982-84.
Source: NMFS SEFSC CFL for landings and NMFS ALS for prices. Note that small amounts (0.03% of king mackerel, 1.95% of Spanish mackerel, and 2.85% of cobia) are landed in the Northeast and are not counted here. Similar, landings and revenue from state waters by vessels without federal permits are not included.

As noted in Table 3.4.1.1, the annual period refers to the fishing year, as appropriate to the management of the species. The estimates of economic activity include the direct effects (effects in the sector where an expenditure is actually made), indirect effects (effects in sectors providing goods and services to directly affected sectors), and induced effects (effects induced by the personal consumption expenditures of employees in the direct and indirectly affected sectors). Estimates are provided for the economic activity associated with the ex-vessel revenues from the individual CMP species as well as the revenues from all species harvested by these same vessels. The estimates of ex-vessel value in Table 3.4.1.2 are replicated from Table 3.4.1.1.

Table 3.4.1.2. Average annual economic activity associated with the CMP fishery.

Species	Average Ex-vessel Value[1] (millions)	Total Jobs	Harvester Jobs	Output (Sales) Impacts (millions)	Income Impacts (millions)
Atlantic migratory group king mackerel	$4.90	884	115	$64.52	$27.50
- all species[2]	$27.24	4,914	641	$358.66	$152.86
Atlantic migratory group Spanish mackerel	$1.87	337	44	$24.62	$10.49
- all species	$11.99	2,163	282	$157.87	$67.28
Gulf migratory group king mackerel	$5.38	970	127	$70.84	$30.19
- all species	$32.06	5,783	755	$422.12	$179.90
Gulf migratory group Spanish mackerel	$0.28	51	7	$3.69	$1.57
- all species	$10.33	1,863	243	$136.01	$57.97
Atlantic migratory group cobia	$0.20	36	5	$2.63	$1.12
- all species	$17.99	3,245	423	$236.87	$100.95
Gulf migratory group cobia	$0.07	13	2	$0.92	$0.39
- all species	$30.38	5,480	715	$400.00	$170.48

[1]2011 dollars.

[2]Includes ex-vessel revenues and economic activity associated with the average annual harvests of all species harvested by vessels that harvested the subject CMP species.

Permits

The numbers of commercial permits associated with the CMP fishery on May 29, 2013, are provided in Table 3.4.1.3

Table 3.4.1.3. Number of permits associated with the CMP fishery as of May 29, 2013.

	Valid[1]	Valid or Renewable
King Mackerel	1,401	1,486
King Mackerel Gillnet	22	23
Spanish Mackerel	1,813	Not applicable

[1]Non-expired; expired permits may be renewed within one year of expiration.

3.4.2 Economic Description of the Recreational Fishery

The recreational sector is comprised of private and for-hire anglers. The private mode includes anglers fishing from shore (all land-based structures) and private/rental boats. The for-hire sector is composed of the charter vessels and headboats (also called party boats). Charter vessels generally carry fewer passengers and charge a fee on an entire vessel basis, whereas headboats

carry more passengers and payment is per person.

Harvest
Recreational harvest information is provided in Section 3.1.

Effort
Extrapolated recreational effort derived from the MRFSS/MRIP database, which does not include Texas, can be characterized in terms of the number of trips as follows:

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

Estimates of average annual recreational effort, 2007-2011, for the CMP species addressed in this amendment are provided in Tables 3.4.2.1-4. In each table, where appropriate, the "total" refers to the total number of target or catch trips, as appropriate, while "all trips" refers to the total number of trips across all species regardless of target intent of catch success. The estimates were evaluated by calendar year and not fishing year. As a result, while the results may not be fully reflective of effort associated with specific stocks (e.g., Gulf migratory group versus Atlantic migratory group for king or Spanish mackerel), the results are consistent with fishing activity based on area fished.

Among the three species examined, Spanish mackerel is subject to more target and catch effort than the other two species for the Gulf states (Table 3.4.2.1). Spanish mackerel is also subject to more catch effort than target effort, whereas more trips target (rather than catch) king mackerel and cobia.

The effort situation is somewhat different for the South Atlantic states (Table 3.4.2.2). While Spanish mackerel still records the highest average number of catch trips per year, the difference over king mackerel is not as pronounced as in the Gulf. Further, more trips target king mackerel than Spanish mackerel (and cobia). Further, all species, including cobia, are subject to more target effort than catch effort. East Florida dominates for all three species and effort type.

If examined by mode, in the Gulf, the private mode accounts for the most target and catch effort for king mackerel and cobia (Table 3.4.2.3). For Spanish mackerel, however, the shore mode dominates target effort, while the private mode accounts for the most catch trips. In the South Atlantic, the private mode leads for all three species and effort type (Table 3.4.2.4).

Table 3.4.2.1. Average annual (calendar year) recreational effort (thousand trips) in the Gulf, by species and by state, across all modes, 2007-2011.

	Target Trips					
Species	Alabama	W Florida	Louisiana	Mississippi	Total	All Trips
King Mackerel	84	385	1	1	472	23,600
Spanish Mackerel	68	762	0	1	830	
Cobia	17	160	8	11	196	
	Catch Trips					
King Mackerel	49	229	3	2	283	23,600
Spanish Mackerel	83	1,070	18	13	1,185	
Cobia	8	71	12	3	94	

Source: NMFS MRFSS/MRIP and Southeast Regional Office.

Table 3.4.2.2. Average annual (calendar year) recreational effort (thousand trips) in the South Atlantic, by species and by state, across all modes, 2007-2011.

	Target Trips					
	E Florida	Georgia	North Carolina	South Carolina	Total	All Trips
King Mackerel	365	11	166	86	629	19,842
Spanish Mackerel	186	4	258	64	512	
Cobia	121	4	50	17	193	
	Catch Trips					
King Mackerel	263	7	63	22	355	19,842
Spanish Mackerel	242	9	200	54	505	
Cobia	37	3	15	4	60	

Source: NMFS MRFSS/MRIP and Southeast Regional Office.

Table 3.4.2.3. Average annual (calendar year) recreational effort (thousand trips) in the Gulf, by species and by mode, across all states, 2007-2011.

	Target Trips				
	Shore	Charter	Private	Total	All Trips
King Mackerel	210	30	231	472	23,600
Spanish Mackerel	534	17	280	830	
Cobia	78	7	112	196	
	Catch Trips				
King Mackerel	49	94	140	283	23,600
Spanish Mackerel	529	55	600	1,185	
Cobia	11	12	71	94	

Source: NMFS MRFSS/MRIP and Southeast Regional Office.

Table 3.4.2.4. Average annual (calendar year) recreational effort (thousand trips) in the South Atlantic, by species and by mode, across all states, 2007-2011.

	Target Trips				
	Shore	Charter	Private	Total	All Trips
King Mackerel	102	27	500	629	19,842
Spanish Mackerel	231	8	273	512	
Cobia	29	5	159	193	
	Catch Trips				
King Mackerel	7	49	298	355	19,842
Spanish Mackerel	189	22	294	505	
Cobia	6	5	49	60	

Source: NMFS MRFSS/MRIP and Southeast Regional Office.

Tables 3.4.2.5-12 contain estimates of the average annual (2007-2011) target trips and catch trips, by species, for each state and mode.

Table 3.4.2.5. Average annual (calendar year) recreational effort (thousand trips), Alabama, by species and by mode, 2007-2011.

	Shore		Charter		Private		Total	
	Target	Catch	Target	Catch	Target	Catch	Target	Catch
King Mackerel	38	10	5	10	42	29	84	49
Spanish Mackerel	38	36	2	7	28	40	68	83
Cobia	1	0	1	1	16	7	17	8

Source: NMFS MRFSS/MRIP and Southeast Regional Office.

Table 3.4.2.6. Average annual (calendar year) recreational effort (thousand trips), West Florida, by species and by mode, 2007-2011.

	Shore		Charter		Private		Total	
	Target	Catch	Target	Catch	Target	Catch	Target	Catch
King Mackerel	172	38	25	83	188	108	385	229
Spanish Mackerel	495	491	15	40	252	539	762	1,070
Cobia	77	10	4	6	79	55	160	71

Source: NMFS MRFSS/MRIP and Southeast Regional Office.

Table 3.4.2.7. Average annual (calendar year) recreational effort (thousand trips), Louisiana, by species and by mode, 2007-2011.

	Shore		Charter		Private		Total	
	Target	Catch	Target	Catch	Target	Catch	Target	Catch
King Mackerel	0	0	0	1	0	2	1	3
Spanish Mackerel	0	1	0	2	0	15	0	18
Cobia	0	0	2	5	6	7	8	12

Source: NMFS MRFSS/MRIP and Southeast Regional Office.

Table 3.4.2.8. Average annual (calendar year) recreational effort (thousand trips), Mississippi, by species and by mode, 2007-2011.

	Shore		Charter		Private		Total	
	Target	Catch	Target	Catch	Target	Catch	Target	Catch
King Mackerel	0	0	0	1	1	1	1	2
Spanish Mackerel	0	1	0	6	0	6	1	13
Cobia	0	0	0	0	11	3	11	3

Source: NMFS MRFSS/MRIP and Southeast Regional Office.

Table 3.4.2.9. Average annual (calendar year) recreational effort (thousand trips), East Florida, by species and by mode, 2007-2011.

	Shore		Charter		Private		Total	
	Target	Catch	Target	Catch	Target	Catch	Target	Catch
King Mackerel	18	5	19	35	328	223	365	263
Spanish Mackerel	119	116	1	3	67	123	186	242
Cobia	12	1	3	4	106	33	121	37

Source: NMFS MRFSS/MRIP and Southeast Regional Office.

Table 3.4.2.10. Average annual (calendar year) recreational effort (thousand trips), Georgia, by species and by mode, 2007-2011.

	Shore		Charter		Private		Total	
	Target	Catch	Target	Catch	Target	Catch	Target	Catch
King Mackerel	0	0	0	0	11	7	11	7
Spanish Mackerel	2	2	0	1	2	7	4	9
Cobia	0	0	0	0	4	3	4	3

Source: NMFS MRFSS/MRIP and Southeast Regional Office.

Table 3.4.2.11. Average annual (calendar year) recreational effort (thousand trips), North Carolina, by species and by mode, 2007-2011.

	Shore		Charter		Private		Total	
	Target	Catch	Target	Catch	Target	Catch	Target	Catch
King Mackerel	37	1	2	9	128	53	166	63
Spanish Mackerel	67	41	4	12	187	148	258	200
Cobia	16	5	1	1	33	9	50	15

Source: NMFS MRFSS/MRIP and Southeast Regional Office.

Table 3.4.2.12. Average annual (calendar year) recreational effort (thousand trips), South Carolina, by species and by mode, 2007-2011.

	Shore		Charter		Private		Total	
	Target	Catch	Target	Catch	Target	Catch	Target	Catch
King Mackerel	47	1	5	5	33	16	86	22
Spanish Mackerel	43	31	3	7	17	16	64	54
Cobia	1	1	1	0	15	4	17	4

Source: NMFS MRFSS/MRIP and Southeast Regional Office.

Similar analysis of recreational effort is not possible for the headboat sector because the headboat data are not collected at the angler level. Estimates of effort in the headboat sector are provided in terms of angler days, or the number of standardized 12-hour fishing days that account for the different half-, three-quarter-, and full-day fishing trips by headboats.

Headboat effort and harvest data, however, is collected through the NMFS Southeast Fisheries Science Center HBS program. The average annual (2007-2011) number of headboat angler days is presented in Table 3.4.2.13. Due to confidentiality issues, Georgia estimates are combined with those of East Florida on the Atlantic, while Alabama is combined with West Florida as part of the summarization process for the Gulf (i.e., as part of the estimation process and not a result of confidentiality merging). As shown in Table 3.4.2.13, in both regions, Florida dominates, followed by Texas in the Gulf and South Carolina in the South Atlantic.

Table 3.4.2.13. Headboat angler days, 2007-2011.

	Gulf of Mexico				
	Louisiana	**Mississippi**	**Texas**	**West Florida/ Alabama**	**Total**
2007	2,522	0	63,764	136,880	203,166
2008	2,945	0	41,188	130,176	174,309
2009	3,268	0	50,737	142,438	196,443
2010	217	*	47,154	111,018	158,389
2011	1,886	1,771	47,284	157,025	207,966
5-year Average	2,168	1,771**	50,025	135,507	189,471
	South Atlantic				
	East Florida/ Georgia	**North Carolina**	**South Carolina**	**Total**	
2007	157,150	29,002	60,729	246,881	
2008	124,119	16,982	47,287	188,388	
2009	136,420	19,468	40,919	196,807	
2010	123,662	21,071	44,951	189,684	
2011	124,041	18,457	44,645	187,143	
5-year Average	133,078	20,996	47,706	201,781	

Source: HBS, NMFS, SEFSC, Beaufort Lab.

*Confidential.

**Because the average totals are used to represent expectations of future activity, the 2011 number of trips is provided as best representative of the emergent headboat sector in Mississippi.

Permits

The numbers of federal CMP charter/headboat permits on March 21, 2013, are provided in Table 3.4.2.14. The for-hire permits do not distinguish between charter vessels and headboats, although information on the primary method of operation is collected on the permit application form. Some vessels may operate as both a charter vessel and a headboat, depending on the season or purpose of the trip. An estimated 70 headboats in the Gulf and an estimated 75 headboats in the South Atlantic participate in the HBS.

Table 3.4.2.14. Number of federal coastal migratory pelagic for-hire (charter vessel/headboat) permits.

	Valid[1]	**Valid or Renewable**
Gulf of Mexico	1,210	1,337
Gulf Historical Captain	34	40
South Atlantic	1,475	Not applicable

[1]Non-expired. Expired permits may be renewed within one year of expiration.

There are no specific federal permitting requirements for recreational anglers to harvest CMP species. Instead, anglers are required to possess either a state recreational fishing permit that authorizes saltwater fishing in general, or be registered in the federal National Saltwater Angler Registry system, subject to appropriate exemptions.

Economic Value, Expenditures, and Economic Activity

Participation, effort, and harvest are indicators of the value of saltwater recreational fishing. However, a more specific indicator of value is the satisfaction that anglers experience over and above their costs of fishing. The monetary value of this satisfaction is referred to as consumer surplus. The value or benefit derived from the recreational experience is dependent on several quality determinants, which include fish size, catch success rate, and the number of fish kept. These variables help determine the value of a fishing trip and influence total demand for recreational fishing trips.

The estimated consumer surplus per fish kept for king mackerel to anglers in both the Gulf and South Atlantic, based on the estimated willingness-to-pay to avoid a reduction in the bag limit, is $7 (assumed 2006 dollars; Whitehead 2006). Comparable estimates have not been identified for Spanish mackerel or cobia.

While anglers receive economic value as measured by the consumer surplus associated with fishing, for-hire businesses receive value from the services they provide. Producer surplus is the measure of the economic value these operations receive. Producer surplus is the difference between the revenue a business receives for a good or service, such as a charter or headboat trip, and the cost the business incurs to provide that good or service. Estimates of the producer surplus associated with for-hire trips are not available. However, proxy values in the form of net operating revenues are available (D. Carter, NMFS SEFSC, pers. comm., August 2010). These estimates were culled from several studies: Liese and Carter (2011), Dumas et al. (2009), Holland et al. (1999), and Sutton et al. (1999). Estimates of net operating revenue per angler trip (2009 dollars) on representative charter trips (average charter trip regardless of area fished) are $146 for Louisiana through west Florida, $135 for east Florida, $156 for northeast Florida, and $128 for North Carolina. For charter trips into the EEZ only, net operating revenues are $141 in east Florida and $148 in northeast Florida. For full-day and overnight trips only, net operating revenues are estimated to be $155-$160 in North Carolina. Comparable estimates are not available for Georgia, South Carolina, or Texas.

Net operating revenues per angler trip are lower for headboats than for charter boats. Net operating revenue estimates for a representative headboat trip are $48 in the Gulf (all states and all of Florida), and $63-$68 in North Carolina. For full-day and overnight headboat trips, net operating revenues are estimated to be $74-$77 in North Carolina. Comparable estimates are not available for Georgia and South Carolina.

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

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

Estimates of the regional economic activity (impacts) associated with the recreational sector for king mackerel, Spanish mackerel, and cobia were derived using average coefficients for recreational angling across all fisheries (species), as derived by an economic add-on to the MRFSS and described and utilized in NMFS (2009), and are provided in Tables 3.4.2.15-20. Business activity is characterized in the form of full-time equivalent jobs, income impacts (wages, salaries, and self-employed income), output impacts (gross business sales), and value-added impacts (difference between the value of goods and the cost of materials or supplies). Job and output (sales) impacts are equivalent metrics across both the commercial and recreational sectors. Income and value-added impacts are not equivalent, though similarity in the magnitude of multipliers may result in roughly equivalent values. Neither income nor value-added impacts should be added to output (sales) impacts because this would result in double counting. Job and output (sales) impacts, however, may be added across sectors.

Estimates of the average expenditures by recreational anglers are provided in NMFS (2009) and are incorporated herein by reference. Estimates of the average recreational effort (2007-2011) and associated economic impacts (2008 dollars) are provided in Table 3.4.2.15. Target trips were used as the measure of recreational effort. As previously discussed, more trips may catch some species than target the species. Where such occurs, estimates of the economic activity associated with the average number of catch trips can be calculated based on the ratio of catch trips to target trips because the average output impact and jobs per trip cannot be differentiated by trip intent. For example, if the number of catch trips is three times the number of target trips for a particular state and mode, the estimate of the associated activity would equal three times the estimate associated with target trips. Table 3.4.2.16 contain estimates of the average annual (2007-2011) target trips, by species, for each state and mode.

It should be noted that output impacts and value added impacts are not additive and the impacts for each species should not be added because of possible duplication (some trips may target multiple species). Also, the estimates of economic activity should not be added across states to generate a regional total because state-level impacts reflect the economic activity expected to occur within the state before the revenues or expenditures "leak" outside the state, possibly to another state within the region. Under a regional model, economic activity that "leaks" from, for example, Alabama into Louisiana, would still occur within the region and continue to be tabulated. As a result, regional totals would be expected to be greater than the sum of the individual state totals. Regional estimates of the economic activity associated with the fisheries for these species are unavailable at this time.

The distribution of the estimates of economic activity by state and mode are consistent with the effort distribution with the exception that charter anglers, on average, spend considerably more money per trip than anglers in other modes. As a result, the number of charter trips can be a fraction of the number of private trips, yet generate similar estimates of the amount of economic

activity. For example, as derived from Table 3.4.2.15, the average number of charter king mackerel target trips in West Florida (25,300 trips) was only approximately 13% of the number of private trips (187,979), whereas the estimated output (sales) impacts by the charter anglers (approximately $8.5 million) was approximately 93% of the output impacts of the private trips (approximately $9.1 million).

Table 3.4.2.15. Summary of king mackerel target trips (2007-2011 average) and associated economic activity (2012 dollars), Gulf states. Output and value added impacts are not additive.

	Alabama	West Florida	Louisiana	Mississippi	Texas
	Shore Mode				
Target Trips	37,876	171,848	0	0	unknown
Output Impact	$2,954,870	$12,418,993	$0	$0	
Value Added Impact	$1,589,549	$7,215,028	$0	$0	
Jobs	34	124	0	0	
	Private/Rental Mode				
Target Trips	41,782	187,979	347	1,341	unknown
Output Impact	$2,592,292	$9,100,990	$30,176	$40,782	
Value Added Impact	$1,419,221	$5,411,790	$14,841	$19,545	
Jobs	26	85	0	0	
	Charter Mode				
Target Trips	4,628	25,300	426	139	unknown
Output Impact	$2,569,513	$8,471,685	$216,259	$46,055	
Value Added Impact	$1,414,431	$5,022,837	$122,791	$25,951	
Jobs	32	82	2	0	
	All Modes				
Target Trips	84,286	385,127	773	1,480	unknown
Output Impact	$8,116,675	$29,991,669	$246,435	$86,836	
Value Added Impact	$4,423,200	$17,649,655	$137,633	$45,497	
Jobs	92	290	2	1	

Source: Effort data from the NMFS MRFSS/MRIP, economic activity results calculated by NMFS Southeast Regional Office using the model developed for NMFS (2009).

Table 3.4.2.16. Summary of king mackerel target trips (2007-2011 average) and associated economic activity (2012 dollars), South Atlantic states. Output and value added impacts are not additive.

	North Carolina	South Carolina	Georgia	East Florida
	Shore Mode			
Target Trips	37,113	47,408	0	17,947
Output Impact	$9,912,562	$5,147,891	$0	$546,734
Value Added Impact	$5,519,852	$2,866,467	$0	$317,409
Jobs	112	59	0	5
	Private/Rental Mode			
Target Trips	127,556	33,068	11,070	328,019
Output Impact	$7,424,590	$1,551,501	$184,435	$13,227,424
Value Added Impact	$4,186,496	$905,280	$111,875	$7,904,088
Jobs	75	17	2	130
	Charter Mode			
Target Trips	1,540	5,476	318	19,418
Output Impact	$639,289	$1,969,232	$21,318	$8,115,065
Value Added Impact	$358,770	$1,112,535	$12,442	$4,777,567
Jobs	8	24	0	78
	All Modes			
Target Trips	166,209	85,952	11,388	365,384
Output Impact	$17,976,441	$8,668,624	$205,752	$21,889,223
Value Added Impact	$10,065,119	$4,884,283	$124,317	$12,999,064
Jobs	195	99	2	214

Source: Effort data from the NMFS MRFSS/MRIP, economic activity results calculated by NMFS Southeast Regional Office using the model developed for NMFS (2009).

Table 3.4.2.17. Summary of Spanish mackerel target trips (2007-2011 average) and associated economic activity (2012 dollars), Gulf states. Output and value added impacts are not additive.

	Alabama	West Florida	Louisiana	Mississippi	Texas
	Shore Mode				
Target Trips	37,870	495,146	380	151	unknown
Output Impact	$2,954,402	$35,782,871	$28,628	$2,168	
Value Added Impact	$1,589,297	$20,788,675	$14,451	$1,081	
Jobs	34	356	0	0	
	Private/Rental Mode				
Target Trips	27,594	251,992	0	237	unknown
Output Impact	$1,712,022	$12,200,175	$0	$7,207	
Value Added Impact	$937,293	$7,254,682	$0	$3,454	
Jobs	17	114	0	0	
	Charter Mode				
Target Trips	2,153	14,793	0	165	unknown
Output Impact	$1,195,368	$4,953,425	$0	$54,669	
Value Added Impact	$658,010	$2,936,871	$0	$30,806	
Jobs	15	48	0	1	
	All Modes				
Target Trips	67,617	761,931	380	553	unknown
Output Impact	$5,861,791	$52,936,471	$28,628	$64,044	
Value Added Impact	$3,184,600	$30,980,228	$14,451	$35,341	
Jobs	66	518	0	1	

Source: effort data from the NMFS MRFSS/MRIP, economic activity results calculated by NMFS Southeast Regional Office using the model developed for NMFS (2009).

Table 3.4.2.18. Summary of Spanish mackerel target trips (2007-2011 average) and associated economic activity (2012 dollars), South Atlantic states. Output and value added impacts are not additive.

	North Carolina	South Carolina	Georgia	East Florida
	Shore Mode			
Target Trips	66,917	43,394	1,623	118,706
Output Impact	$17,872,953	$4,712,022	$27,878	$3,616,236
Value Added Impact	$9,952,630	$2,623,766	$16,717	$2,099,424
Jobs	202	54	0	36
	Private/Rental Mode			
Target Trips	187,165	17,139	2,113	66,616
Output Impact	$10,894,222	$804,136	$35,204	$2,686,302
Value Added Impact	$6,142,915	$469,203	$21,354	$1,605,208
Jobs	110	9	0	26
	Charter Mode			
Target Trips	4,404	3,000	89	595
Output Impact	$1,828,200	$1,078,834	$5,966	$248,659
Value Added Impact	$1,025,990	$609,497	$3,482	$146,393
Jobs	22	13	0	2
	All Modes			
Target Trips	258,486	63,533	3,825	185,917
Output Impact	$30,595,375	$6,594,993	$69,049	$6,551,197
Value Added Impact	$17,121,534	$3,702,465	$41,553	$3,851,024
Jobs	334	76	1	65

Source: effort data from the NMFS MRFSS/MRIP, economic activity results calculated by NMFS Southeast Regional Office using the model developed for NMFS (2009).

Table 3.4.2.19. Summary of cobia target trips (2007-2011 average) and associated economic activity (2012 dollars), Gulf states. Output and value added impacts are not additive.

	Alabama	West Florida	Louisiana	Mississippi	Texas
	Shore Mode				
Target Trips	781	76,520	0	439	unknown
Output Impact	$60,929	$5,529,895	$0	$6,302	
Value Added Impact	$32,776	$3,212,688	$0	$3,142	
Jobs	1	55	0	0	
	Private/Rental Mode				
Target Trips	15,521	79,002	6,142	10,866	unknown
Output Impact	$962,974	$3,824,876	$534,117	$330,449	
Value Added Impact	$527,206	$2,274,415	$262,698	$158,375	
Jobs	9	36	5	3	
	Charter Mode				
Target Trips	641	4,059	2,250	0	unknown
Output Impact	$355,890	$1,359,153	$1,142,213	$0	
Value Added Impact	$195,905	$805,838	$648,547	$0	
Jobs	4	13	11	0	
	All Modes				
Target Trips	16,943	159,581	8,392	11,305	unknown
Output Impact	$1,379,793	$10,713,924	$1,676,331	$336,751	
Value Added Impact	$755,888	$6,292,940	$911,244	$161,516	
Jobs	15	104	16	3	

Source: Effort data from the NMFS MRFSS/MRIP, economic activity results calculated by NMFS Southeast Regional Office using the model developed for NMFS (2009c).

Table 3.4.2.20. Summary of cobia target trips (2007-2011 average) and associated economic activity (2012 dollars), South Atlantic states. Output and value added impacts are not additive.

	North Carolina	South Carolina	Georgia	East Florida
	Shore Mode			
Target Trips	15,940	651	0	12,004
Output Impact	$4,257,436	$70,690	$0	$365,688
Value Added Impact	$2,370,772	$39,362	$0	$212,302
Jobs	48	1	0	4
	Private/Rental Mode			
Target Trips	33,009	15,471	4,056	106,004
Output Impact	$1,921,339	$725,876	$67,576	$4,274,630
Value Added Impact	$1,083,383	$423,539	$40,991	$2,554,318
Jobs	19	8	1	42
	Charter Mode			
Target Trips	1,091	972	47	3,370
Output Impact	$452,899	$349,542	$3,151	$1,408,372
Value Added Impact	$254,168	$197,477	$1,839	$829,148
Jobs	5	4	0	14
	All Modes			
Target Trips	50,040	17,094	4,103	121,378
Output Impact	$6,631,674	$1,146,108	$70,727	$6,048,689
Value Added Impact	$3,708,323	$660,378	$42,829	$3,595,768
Jobs	73	13	1	59

Source: Effort data from the NMFS MRFSS/MRIP, economic activity results calculated by NMFS Southeast Regional Office using the model developed for NMFS (2009c).

As previously noted, the values provided in Tables 3.4.2.15-20 only reflect effort derived from the MRFSS/MRIP. Because the headboat sector in the southeast region is not covered by the MRFSS/MRIP, the results in Tables 3.4.2.15-20 do not include estimates of the economic activity associated with headboat anglers. While estimates of headboat effort are available (see Table 3.4.2.13), species target information is not collected in the HBS, which prevents the generation of estimates of the number of headboat target trips for individual species. Further, because the model developed for NMFS (2009) was based on expenditure data collected through the MRFSS/MRIP, expenditure data from headboat anglers was not available and appropriate economic expenditure coefficients have not been estimated. As a result, estimates of the economic activity associated with the headboat sector comparable to those of the other recreational sector modes cannot be provided.

3.5 Description of the Social Environment

Demographic profiles of coastal communities can be found in Amendment 18 to the FMP (GMFMC and SAFMC 2011). The referenced description focuses on available geographic and demographic data to identify communities having a strong relationship with king mackerel, Spanish mackerel, and cobia fishing using 2008 ALS data. A strong relationship is defined as having significant landings and revenue for these species. Thus, positive or negative impacts from regulatory change are expected to occur in places with greater landings. This section has been updated using 2011 ALS data, the most recent year available.

The descriptions of Gulf and South Atlantic communities in this document include information about the top communities based upon a "regional quotient" of commercial landings and value for CMP species. The regional quotient is the proportion of landings and value out of the total landings and value of that species for that region, and is a relative measure. The Florida Keys communities are included in both Gulf and South Atlantic communities to allow for comparison within each region. Although almost all communities in the South Atlantic and Gulf regions have commercial landings of multiple species in addition to CMP species, these top communities are referred to in this document as "CMP Communities." These areas are those that would be most likely to experience the effects of proposed actions that could change the CMP fishery and impact the participants and associated businesses and communities within the region. If a community is identified as a CMP community based on the regional quotient, this does not necessarily mean that the community would experience significant impacts due to changes in the CMP fishery if a different species or number of species were also important to the local community and economy. The identified CMP communities in this section are referenced in the Social Effects sections in Section 4 in order to provide information on how the actions and alternatives could impact specific communities. More detailed information about communities with the highest regional quotients are found in Amendment 18 (GMFMC and SAFMC 2011).

In addition to examining the regional quotients to understand how South Atlantic and Gulf communities are engaged and reliant on fishing, and specifically on CMP species, indices were created using secondary data from permit and landings information for the commercial sector and permit information for the recreational sector (Jepson and Colburn 2013; Jacob et al. 2013). Fishing engagement is primarily the absolute numbers of permits, landings, and value. For commercial fishing, the analysis used the number of vessels designated commercial by homeport and owner address, value of landings, and total number of commercial permits for each community. Recreational fishing engagement is represented by the number of recreational permits and vessels designated as recreational by homeport and owners address. Fishing reliance includes the same variables as fishing engagement divided by population to give an indication of the per capita influence of this activity.

Using a principal component and single solution factor analysis each community receives a factor score for each index to compare to other communities. Taking the communities with the highest regional quotients, factor scores of both engagement and reliance for both commercial and recreational fishing were plotted. Two thresholds of one and ½ standard deviation above the mean are plotted onto the graphs to help determine a threshold for significance. The factor scores are standardized therefore a score above 1 is also above one standard deviation. A score

above ½ standard deviation is considered engaged or reliant with anything above 1 standard deviation to be very engaged or reliant.

The reliance index uses factor scores that are normalized. The factor score is similar to a z-score in that the mean is always zero and positive scores are above the mean and negative scores are below the mean. Comparisons between scores are relative but one should bear in mind that like a z-sore the factor score puts the community on a spot in the distribution. Objectively they have a score related to the percent of communities with those similar attributes. For example, a score of 2.0 means the community is two standard deviations above the mean and is among the 2.27% most vulnerable places in the study (normal distribution curve). Reliance score comparisons between communities are relative. However, if the community scores greater than two standard deviations above the mean, this indicated that the community is dependent on the species. Examining the component variables on the reliance index and how they are weighted by factor score provides a measurement of commercial reliance. The reliance index provides a way to gauge change over time in these communities and also provides a comparison of one community with another.

3.5.1 Gulf of Mexico CMP Fishing Communities

King Mackerel

Commercial Communities

About one-third of all Gulf king mackerel is landed in Destin, Florida, representing about 40% of the Gulf-wide value (Figure 3.5.1.1). Several Florida Keys communities (Key West, Islamorada, and Marathon) are included in the top communities and collectively these communities represent a significant portion of the landings and value of commercial king mackerel. In addition, three other Florida communities place in the top fifteen: four Louisiana communities, one Texas community, two in Alabama, and one community in Mississippi.

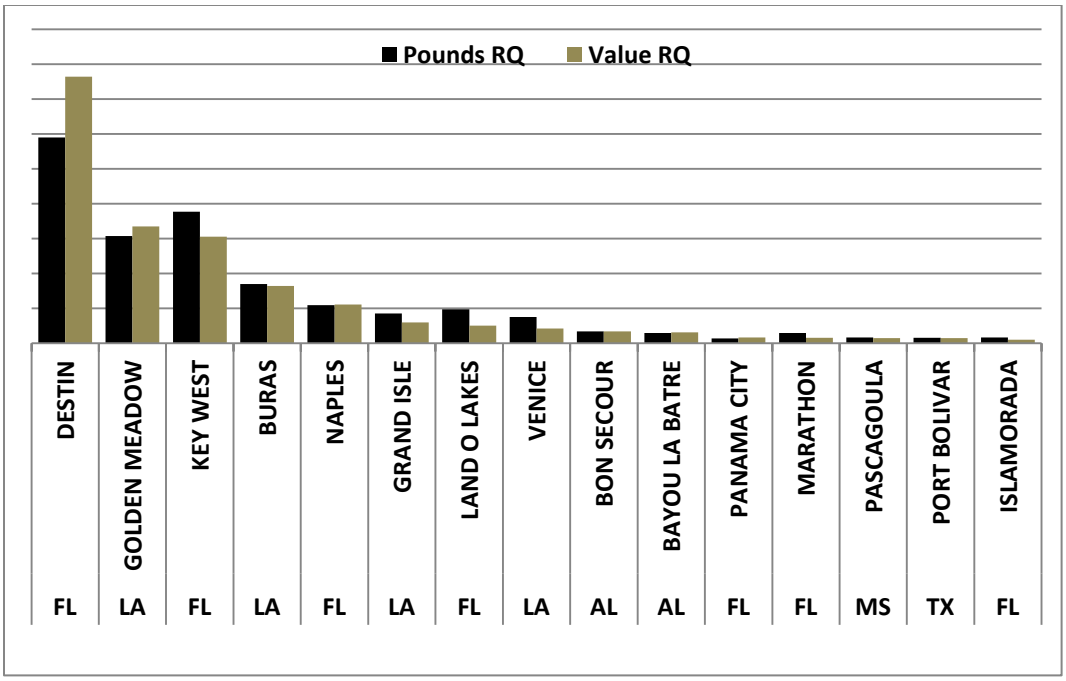

Figure 3.5.1.1. Top fifteen Gulf communities ranked by pounds and value regional quotient (RQ) of king mackerel. The actual RQ values (y-axis) are omitted from the figure to maintain confidentiality.
Source: Southeast Regional Office, Community ALS 2011.

Reliance on and Engagement with Commercial and Recreational Fishing
The details of how these indices are generated are explained in the beginning of the Social Environment section. For king mackerel (Figure 3.5.1.2), the primary communities that demonstrate high levels of commercial fishing engagement and reliance include Bayou La Batre, Boothville-Venice, and Grand Isle, Louisiana; and Key West, Marathon, and Panama City, Florida. Communities with substantial recreational engagement and reliance include Destin, Islamorada, Key West, Marathon, Naples, and Panama City, Florida.

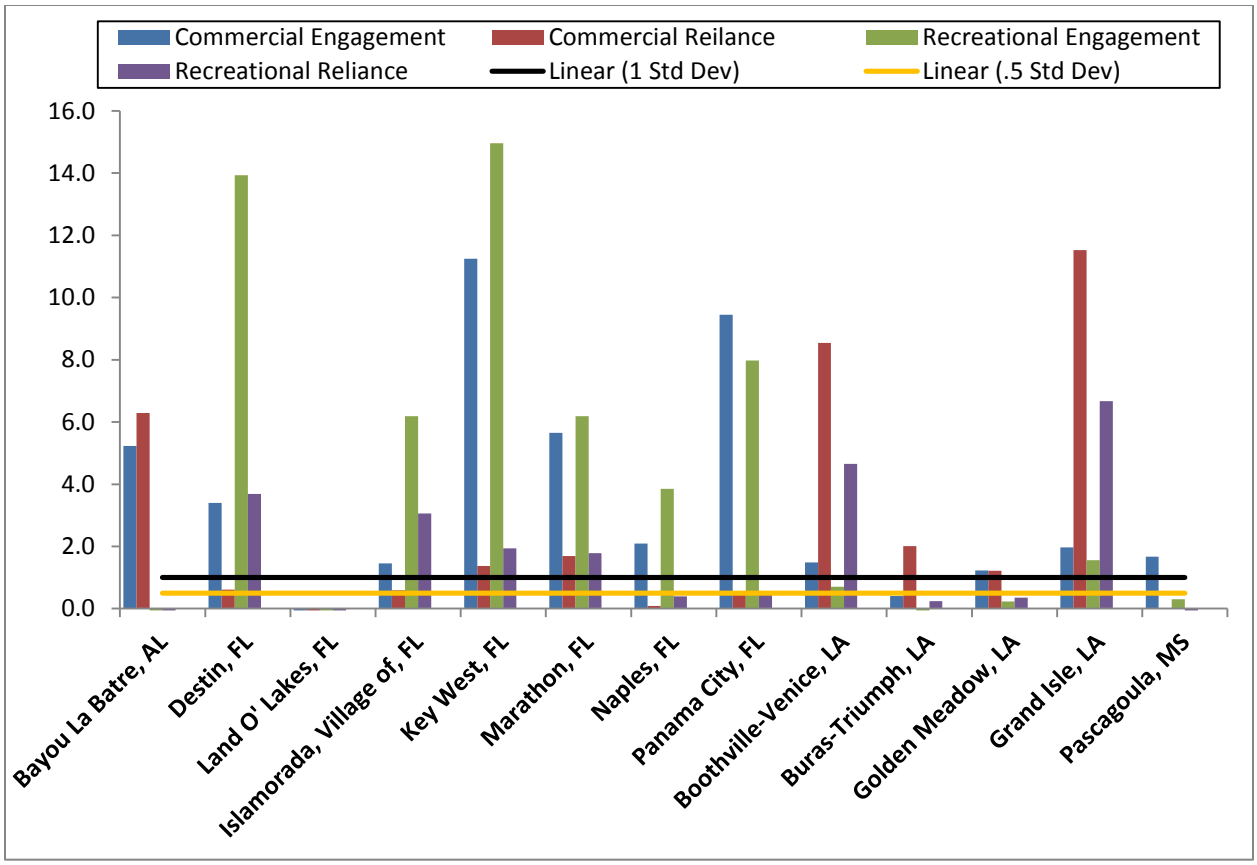

Figure 3.5.1.2. Commercial and recreational reliance and engagement for Gulf communities with the top regional quotients for king mackerel.
Source: Southeast Regional Office Social Indicator Database 2013.

Spanish Mackerel

Commercial Communities

Ranking first among all Gulf communities, Destin, Florida lands one quarter of all Spanish mackerel in the Gulf, and those landings represent over 25% of the total value (Figure 3.5.1.3). The second ranked community of Bayou La Batre, Alabama includes about 20% of the landings and about 15% of the value of Spanish mackerel. Ten other Florida communities make up the top fifteen (including two Florida Keys communities), three additional Alabama communities, and one Louisiana community. No Texas or Mississippi communities rank among the top 15 communities for Spanish mackerel.

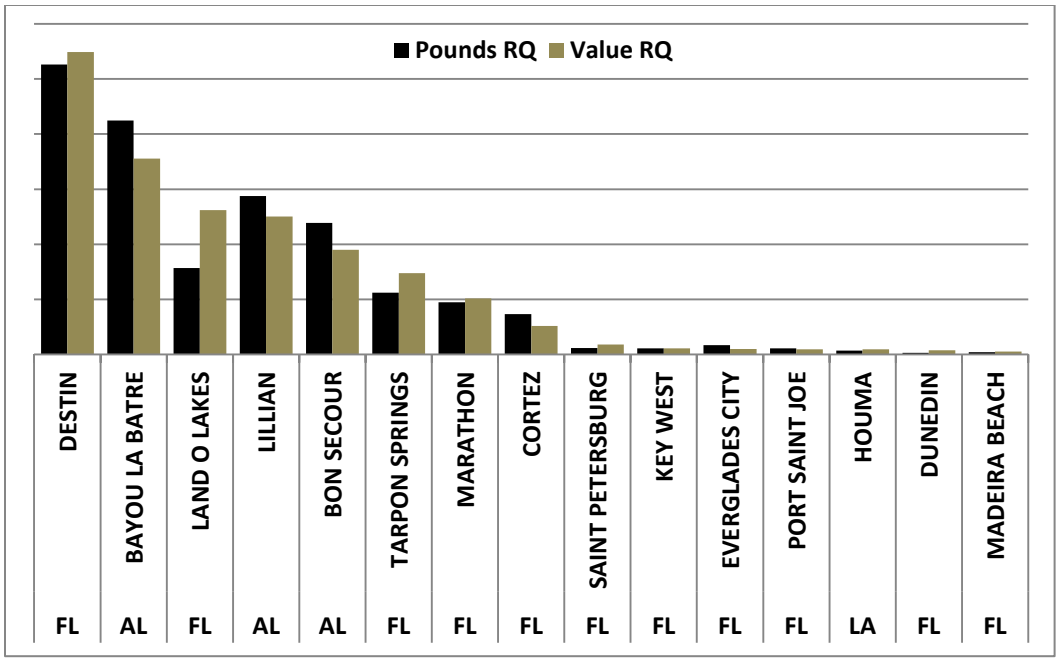

Figure 3.5.1.3. Top fifteen Gulf communities ranked by pounds and value of regional quotient (RQ) of Spanish mackerel. The actual RQ values (y-axis) are omitted from the figure to maintain confidentiality.
Source: Southeast Regional Office, Community ALS 2011.

Reliance on and Engagement with Commercial and Recreational Fishing
For significant communities in the Spanish mackerel component of the fishery, Figure 3.5.1.4 shows commercial and recreational engagement and reliance on fishing. The primary commercial communities that could be affected by change to Spanish mackerel include Bayou La Batre and Houma, Louisiana. Florida communities include Destin, Everglades, Key West, Marathon, St. Petersburg, and Tarpon Springs. The primary recreational communities in the Spanish mackerel component of the fishery are all in Florida and include Destin, Key West, Marathon, Port St. Joe, St. Petersburg, and Tarpon Springs.

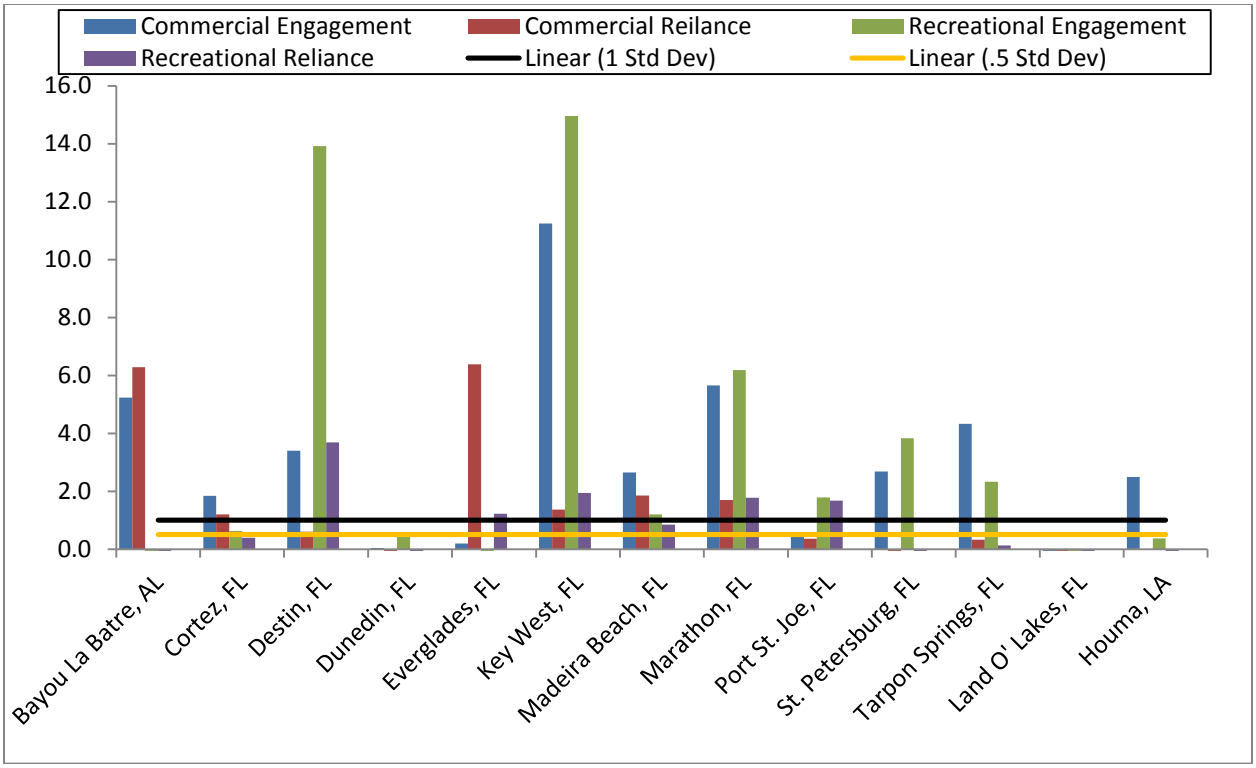

Figure 3.5.1.4. Commercial and recreational reliance and engagement for Gulf communities with the top regional quotients for Spanish mackerel.
Source: Southeast Regional Office Social Indicator Database 2013.

Cobia

Commercial Communities

Destin, Florida lands the majority of cobia for Gulf fishing communities (Figure 3.5.1.5). Twelve other Florida communities make up the top fifteen (including three Florida Keys communities) plus two Louisiana communities. No Texas, Alabama, or Mississippi communities are included in the top 15 communities for cobia.

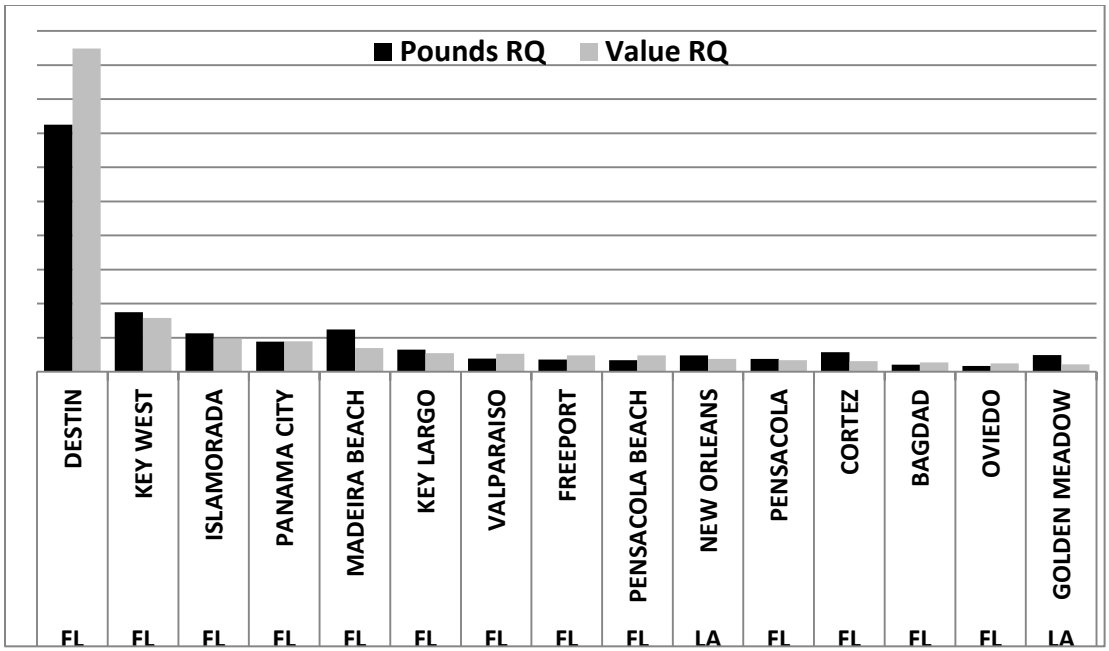

Figure 3.5.1.5. Cobia pounds and value regional quotient (RQ) for top fifteen communities in the Gulf. The actual RQ values (y-axis) are omitted from the figure to maintain confidentiality.
Source: Southeast Regional Office Community ALS 2011.

Reliance on and Engagement with Commercial and Recreational Fishing
Figure 3.5.1.6 shows measures of fishing engagement and reliance for the commercial and recreational sectors in the significant communities for the cobia component of the fishery. The primary commercial communities in the cobia component of the fishery include New Orleans, Louisiana, and the Florida communities of Destin, Key West, Key Largo, Panama City, and Pensacola. The primary recreational communities in the cobia component of the fishery are all in Florida and include Destin, Key West, Key Largo, Islamorada, Panama City, and Pensacola.

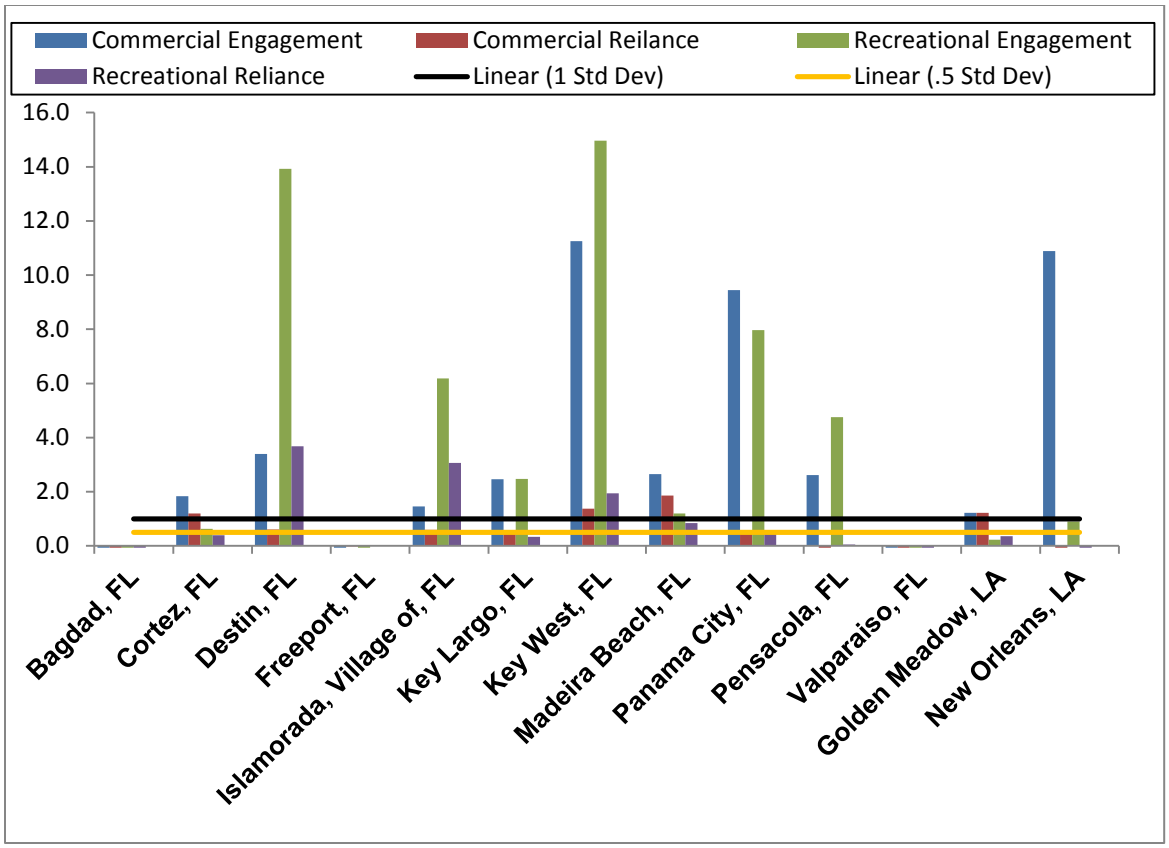

Figure 3.5.1.6. Commercial and recreational reliance and engagement for Gulf communities with the top regional quotients for cobia.
Source: Southeast Regional Office, Social Indicator Database 2013.

3.5.2 South Atlantic CMP Fishing Communities

King Mackerel

Commercial Communities

Cocoa, Florida lands about 25% of all king mackerel among South Atlantic fishing communities and those landings represent approximately 25% of the value (Figure 3.5.2.1). Only four North Carolina communities rank in the top fifteen, and no South Carolina or Georgia communities are included in the top 15 communities.

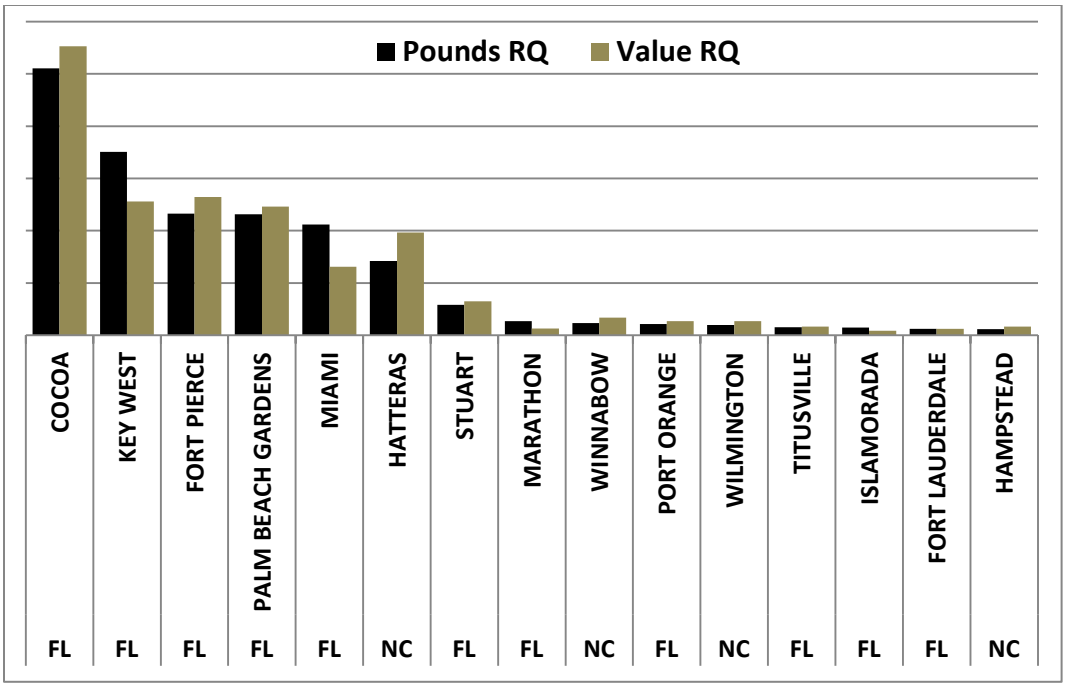

Figure 3.5.2.1. Top fifteen South Atlantic communities ranked by pounds and value regional quotient (RQ) of king mackerel. The actual RQ values (y-axis) are omitted from the figure to maintain confidentiality.
Source: ALS 2011.

Reliance on and Engagement with Commercial and Recreational Fishing
For king mackerel (Figure 3.5.2.2), the primary communities that demonstrate high levels of commercial fishing engagement and reliance are include Fort Pierce, Florida; Key West, Florida; Marathon, Florida; Miami Florida; and Wilmington, North Carolina. Communities with substantial recreational engagement and reliance include the Florida communities of Fort Lauderdale, Islamorada, Key West, Marathon, and Miami.

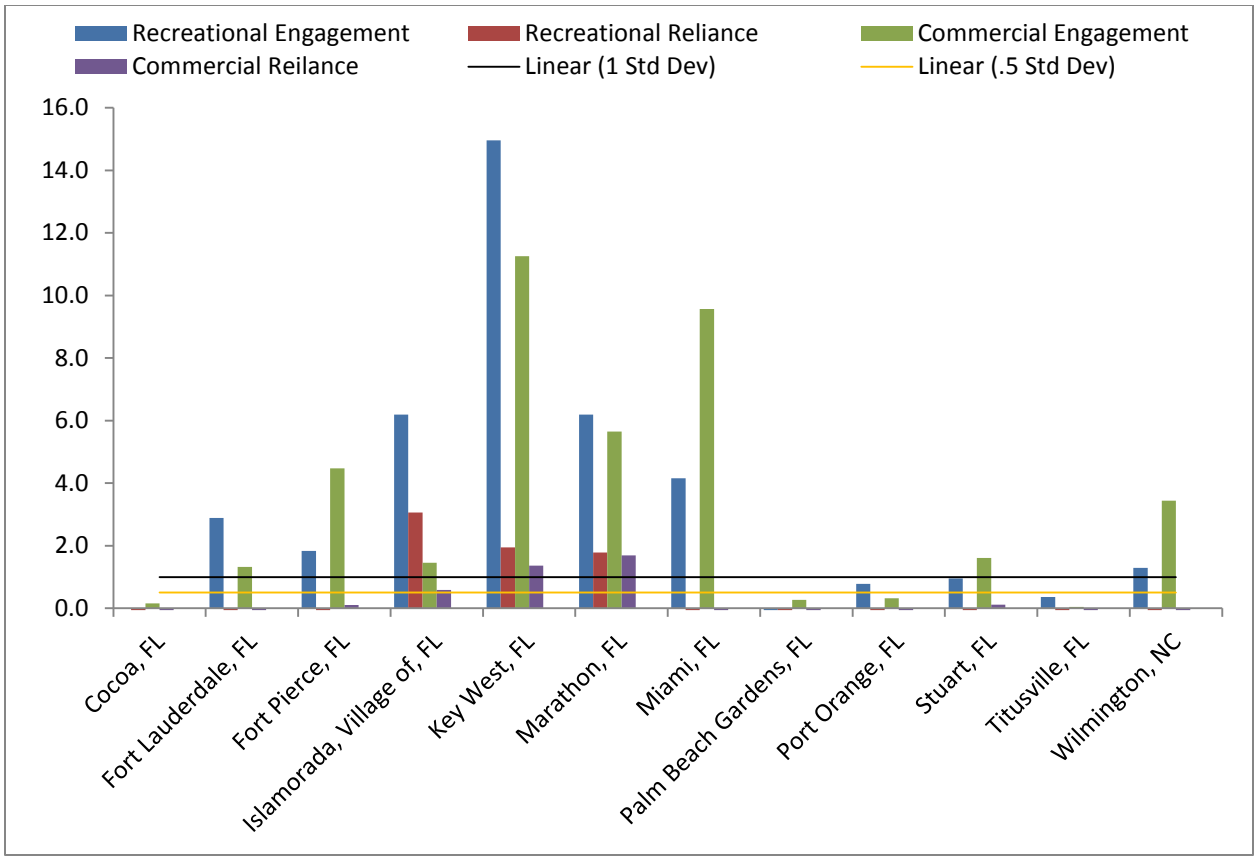

Figure 3.5.2.2. Commercial and recreational reliance and engagement for South Atlantic communities with the top regional quotients for king mackerel.
Source: Southeast Regional Office, Social Indicator Database 2013.

Spanish Mackerel

Commercial Communities

For Spanish mackerel in the South Atlantic (Figure 3.5.2.3), Fort Pierce, Florida, has almost 32% of the landings and over 25% of the value. Cocoa, Florida, is second with about 17% of landings and 17% of value. Although Hatteras, North Carolina ranked third for value, the community had lower landings than Palm Beach Gardens, Florida. No South Carolina or Georgia communities are included in the top fifteen for Spanish mackerel.

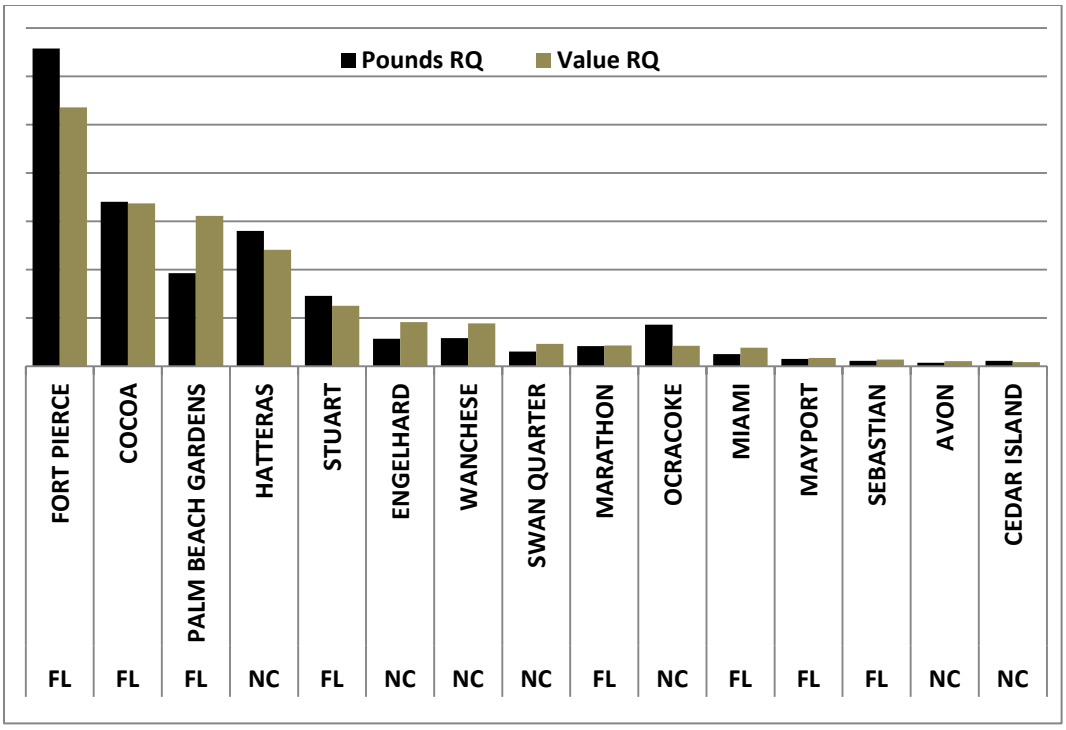

Figure 3.5.2.3. Top fifteen South Atlantic communities ranked by pounds and value of regional quotient (RQ) of Spanish mackerel. The actual RQ values (y-axis) are omitted from the figure to maintain confidentiality.
Source: ALS 2011.

Reliance on and Engagement with Commercial and Recreational Fishing
For significant communities in the Spanish mackerel component of the fishery, Figure 3.5.2.4 shows commercial and recreational engagement and reliance on fishing. The primary commercial communities in the Spanish mackerel component of the fishery include Fort Pierce, Florida; Marathon, Florida; Miami, Florida; Sebastian, Florida; Stuart, Florida; and Wanchese, North Carolina. The primary recreational communities in the Spanish mackerel component of the fishery are Fort Pierce, Florida; Marathon, Florida; Miami, Florida; Sebastian, Florida; and Wanchese, North Carolina.

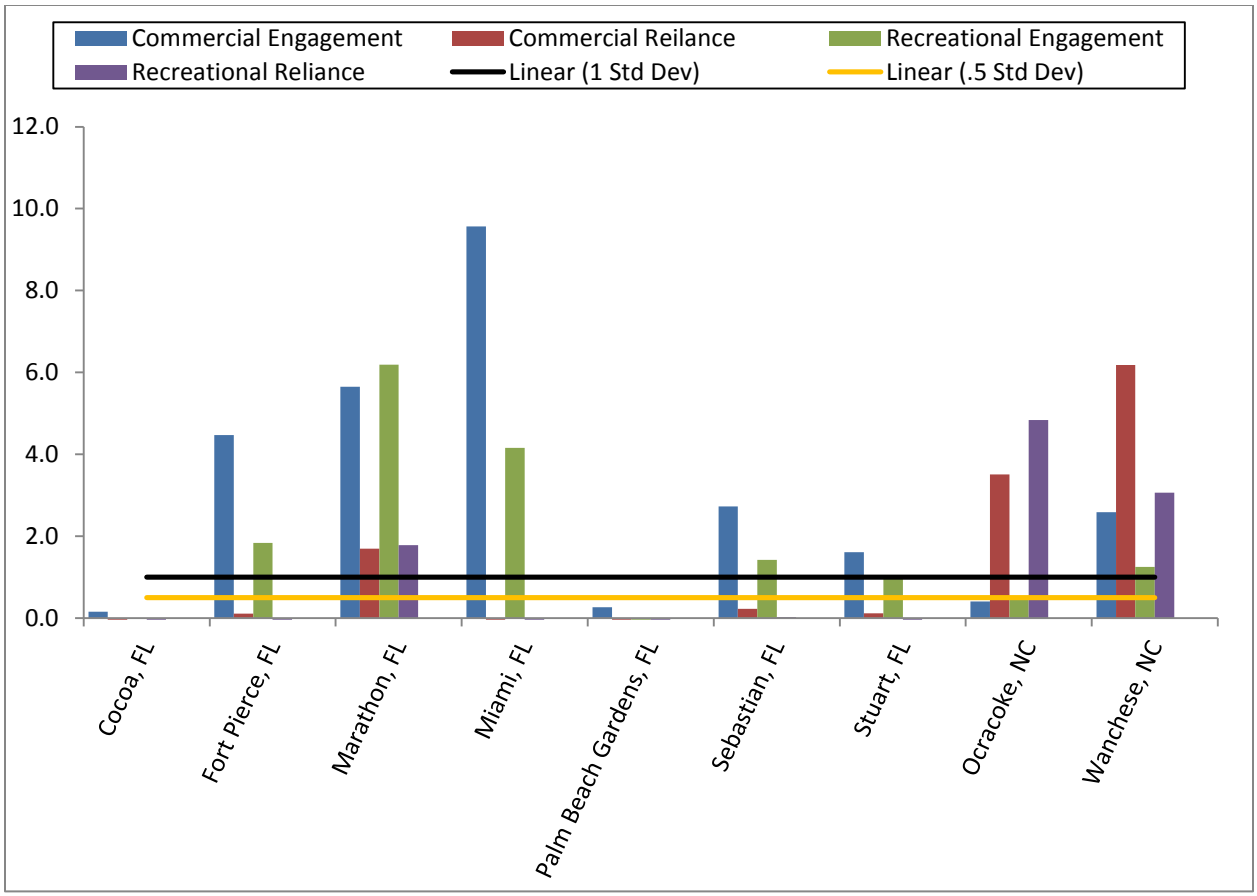

Figure 3.5.2.4. Commercial and recreational reliance and engagement for South Atlantic communities with the top regional quotients for Spanish mackerel.
Source: Southeast Regional Office, Social Indicator Database 2013.

Cobia

For cobia in the South Atlantic (Figure 3.5.2.5), the primary communities are all in Florida and include Cocoa, Fort Pierce, Jupiter, Palm Beach Gardens and Titusville. Hatteras, North Carolina, and Hilton Head, South Carolina, are also included in the top fifteen, but Georgia communities are included.

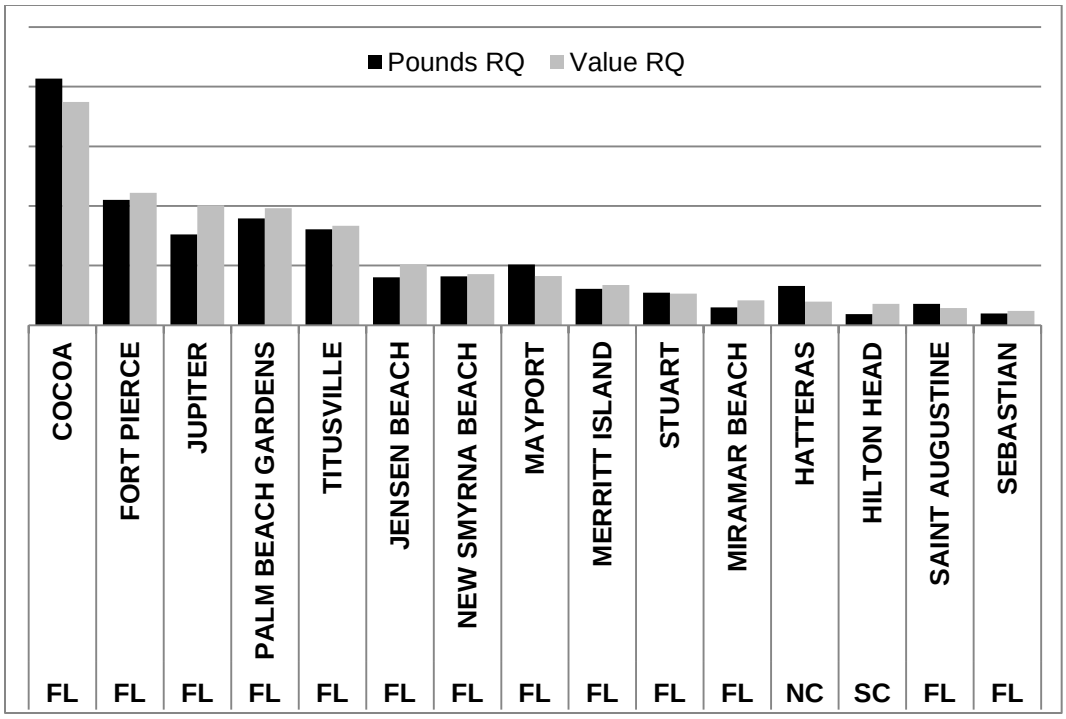

Figure 3.5.2.5. Top fifteen South Atlantic communities ranked by pounds and value of regional quotient (RQ) of cobia. The actual RQ values (y-axis) are omitted from the figure to maintain confidentiality.
Source: ALS 2011.

Reliance on and Engagement with Commercial and Recreational Fishing
Figure 3.5.2.6 shows commercial and recreational engagement and reliance on fishing in the significant communities in the cobia component of the fishery. The primary commercial communities in the cobia component of the fishery include the Florida communities of Fort Pierce, Jupiter, St. Augustine, Sebastian, and Stuart. The primary recreational communities in the cobia component of the fishery include the Florida communities of Fort Pierce, Jupiter, St. Augustine, Sebastian, Stuart, and Merritt Island in addition to Hilton Head, South Carolina.

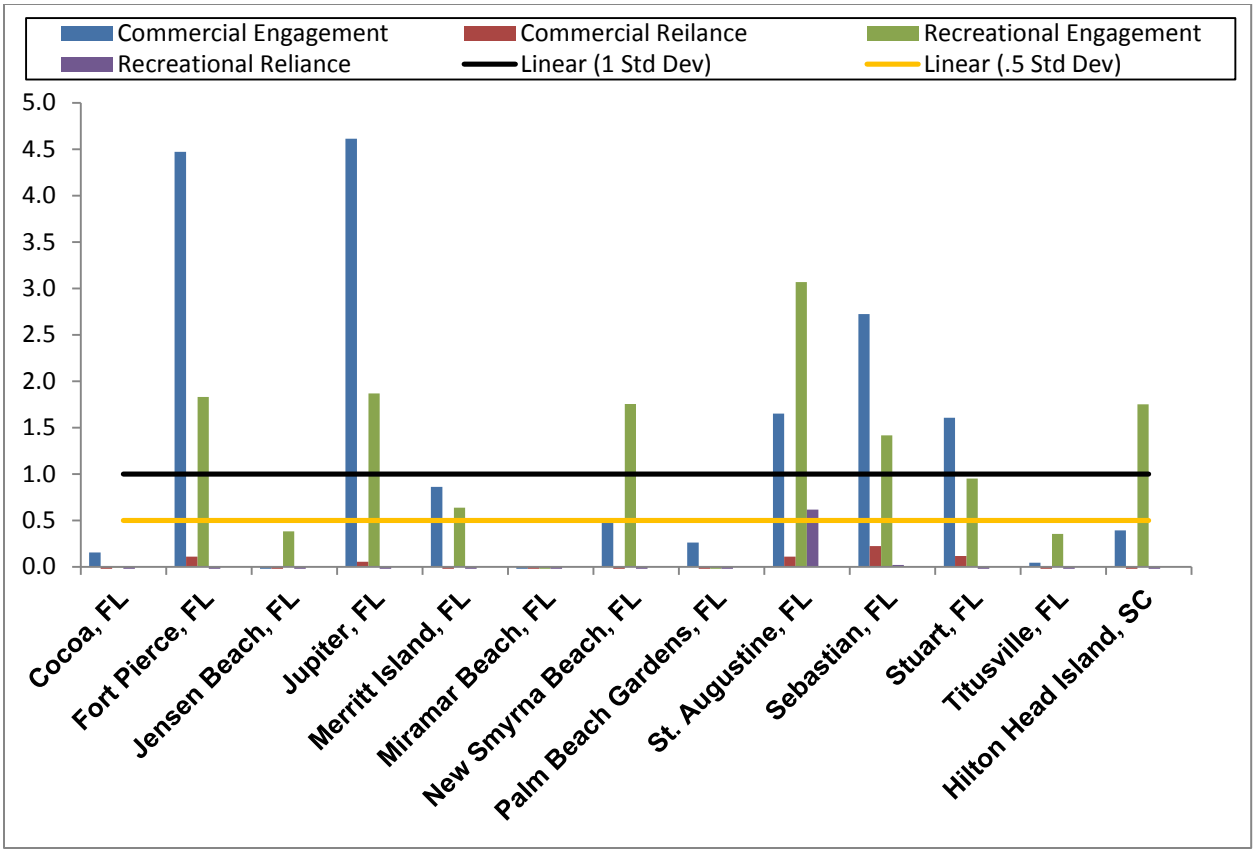

Figure 3.5.2.6. Commercial and recreational reliance and engagement for South Atlantic communities with the top regional quotients for cobia.
Source: Southeast Regional Office, Social Indicator Database 2013.

3.5.3 Mid-Atlantic CMP Fishing Communities

The South Atlantic Council manages Atlantic migratory groups of king mackerel, Spanish mackerel, and cobia through the Mid-Atlantic region as well as in the South Atlantic region. Overall, landings of these species in the Mid-Atlantic region are very low, and management actions by the South Atlantic Council likely have minimal impacts on Mid-Atlantic communities.

King Mackerel

Commercial Communities

For king mackerel in the Mid-Atlantic (Figure 3.5.3.1), the relatively highest level of landings at the regional level occur in Accomac, Virginia. Other Mid-Atlantic communities with commercial king mackerel landings include Hampton, Virginia; Barnegat Light, New Jersey; Amagansett, New York; Moriches, New York; and Montauk, New York. No communities in Pennsylvania, Delaware, or Maryland are included in the top Mid-Atlantic communities for king mackerel.

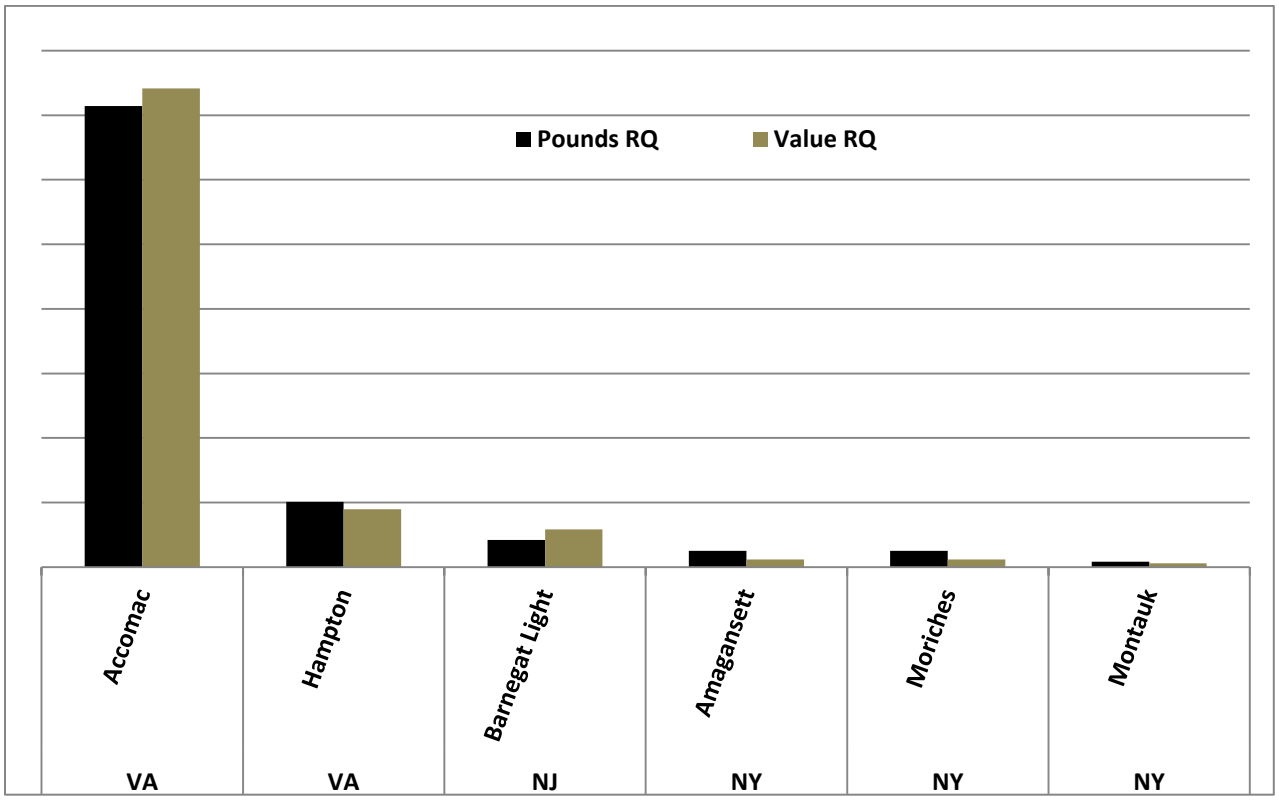

Figure 3.5.3.1. Top Mid-Atlantic communities ranked by pounds and value regional quotient (RQ) of king mackerel. The actual RQ values (y-axis) are omitted from the figure to maintain confidentiality.

Source: NEFSC 2011.

Reliance on and Engagement with Commercial and Recreational Fishing
For king mackerel (Figure 3.5.3.2), the primary Mid-Atlantic communities that demonstrate relatively high levels of commercial fishing engagement and reliance are include Montauk, New York; and Barnegat Light, New Jersey. Communities with substantial recreational engagement and reliance include Montauk, New York; Hampton, Virginia; and Barnegat Light, New Jersey.

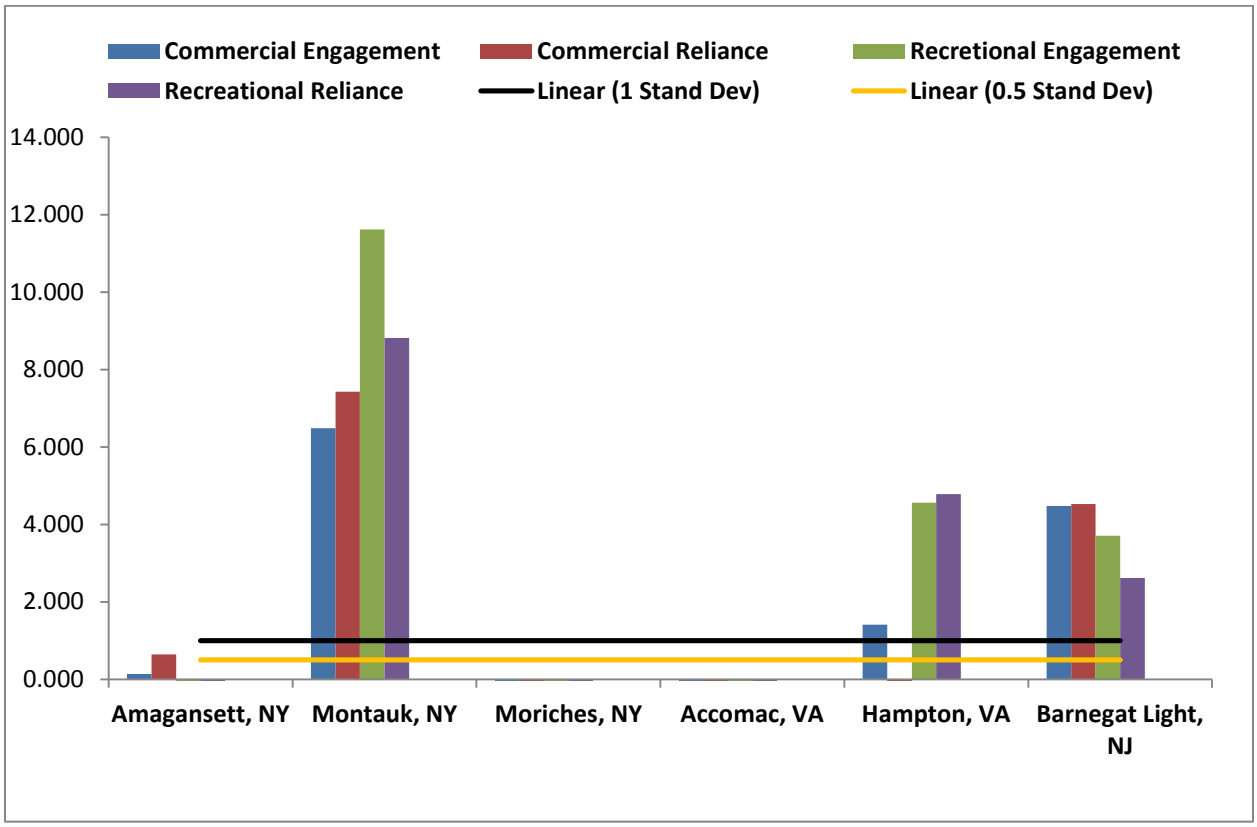

Figure 3.5.3.2. Commercial and recreational reliance and engagement for Mid-Atlantic communities with the top regional quotients for king mackerel.
Source: Southeast Regional Office/NEFSC, Social Indicator Database 2013.

Spanish Mackerel

Commercial Communities
For Spanish mackerel in the Atlantic (Figure 3.5.3.3), the primary community with the relatively highest level of landings of at the regional level is Virginia Beach, Virginia. The Virginia counties of Gloucester, Northampton, and Northcumberland also include communities with higher levels of landings in the Mid-Atlantic region. Some communities in Maryland reported landings of Spanish mackerel (minimal), but no communities in New York, New Jersey, Pennsylvania, or Delaware are included in the top communities for Spanish mackerel.

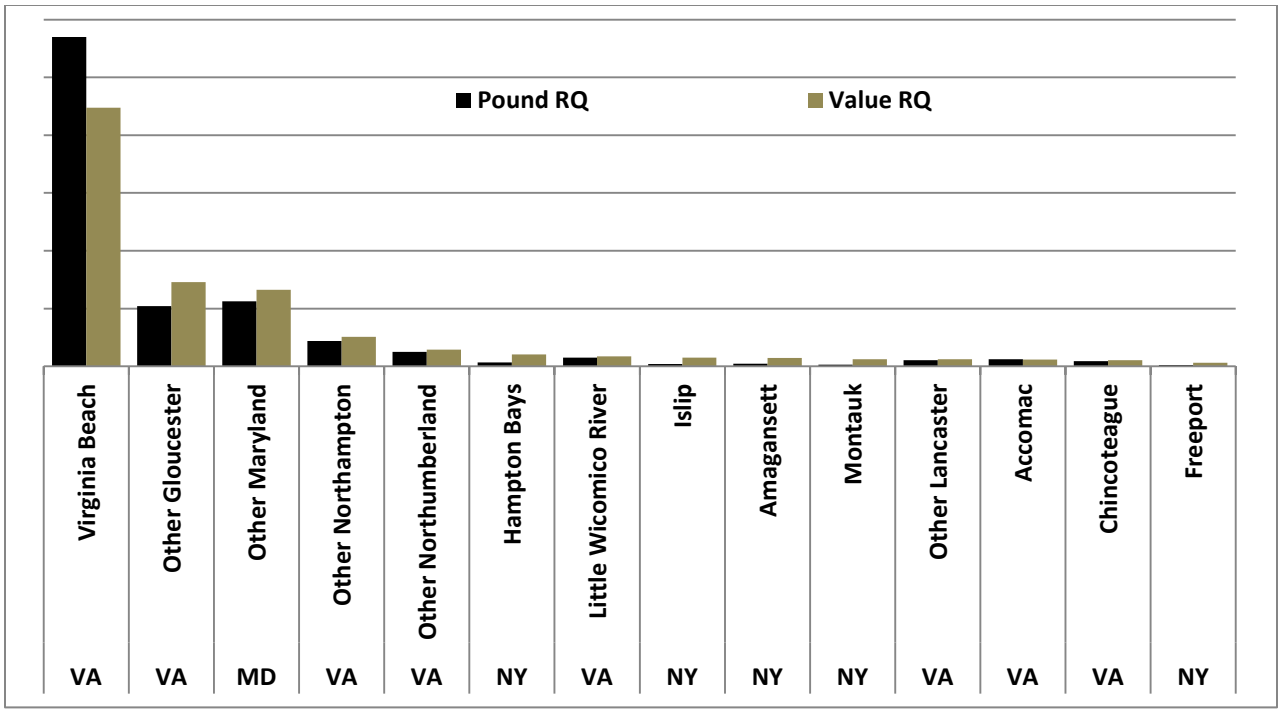

Figure 3.5.3.3. Top Mid-Atlantic communities ranked by pounds and value regional quotient (RQ) of Spanish mackerel. The actual RQ values (y-axis) are omitted from the figure to maintain confidentiality.
Source: NEFSC 2011.

Reliance on and Engagement with Commercial and Recreational Fishing
For king mackerel (Figure 3.5.3.4), the primary communities that demonstrate relatively high levels of commercial fishing engagement and reliance are Montauk, New York, and Hampton Bays, New York. Communities with relatively substantial recreational engagement and reliance include Montauk, New York; Virginia Beach, Virginia; Chincoteague, Virginia; and Freeport, New York.

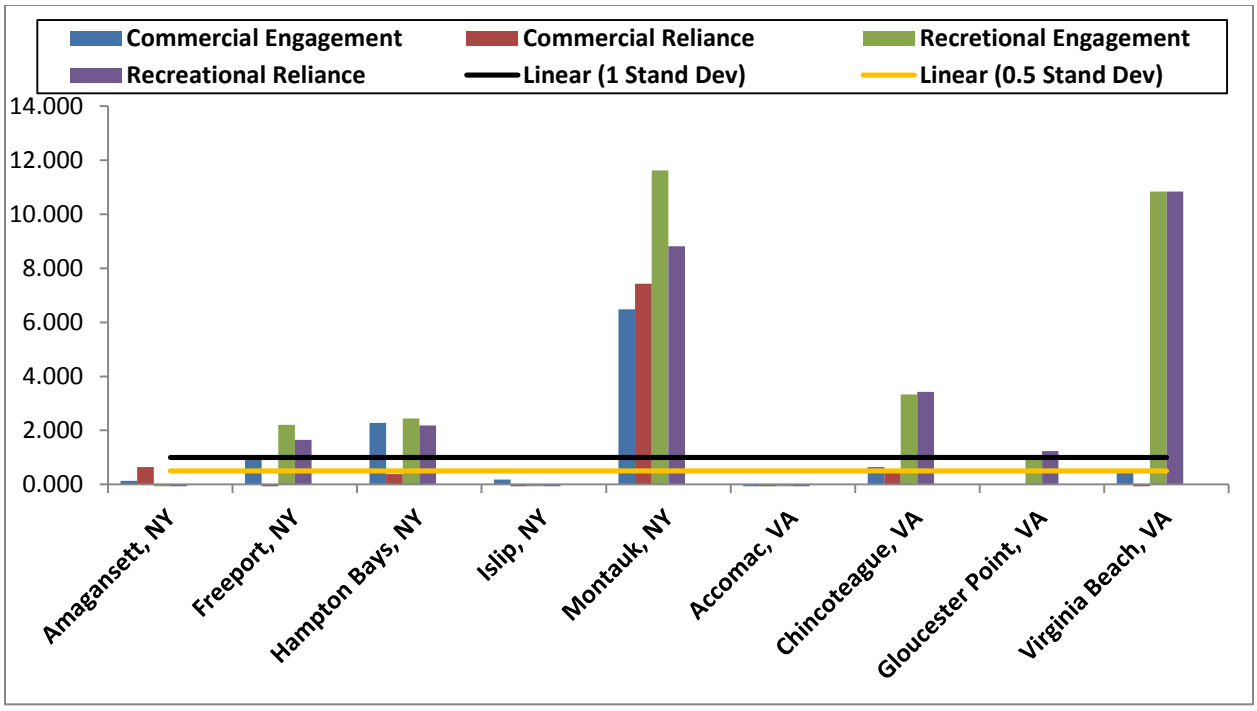

Figure 3.5.3.4. Commercial and recreational reliance and engagement for Mid-Atlantic communities with the top regional quotients for Spanish mackerel.
Source: Southeast Regional Office/NEFSC, Social Indicator Database 2013.

Cobia

Commercial Communities

For cobia in the Mid-Atlantic (Figure 3.5.3.5), the primary communities with the relatively highest level of landings at the regional level are all in Virginia and include Norfolk County, Virginia Beach, Hampton, Wachapreague, Northampton County, and Norfolk. Some communities in New York and New Jersey have commercial landings of cobia (minimal), but no communities in Pennsylvania, Maryland or Delaware are included in the top communities for cobia.

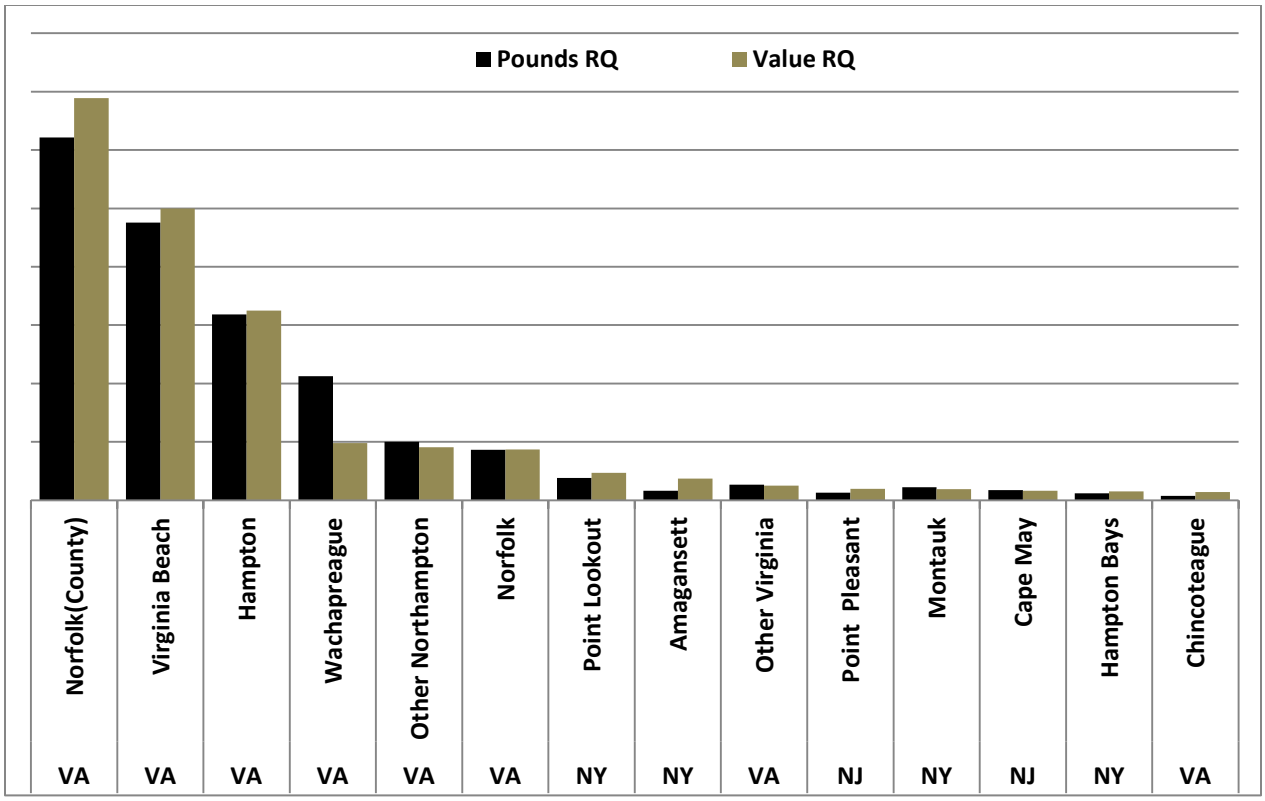

Figure 3.5.3.5. Top Mid-Atlantic communities ranked by pounds and value regional quotient (RQ) of cobia. The actual RQ values (y-axis) are omitted from the figure to maintain confidentiality.
Source: NEFSC 2011.

Reliance on and Engagement with Commercial and Recreational Fishing
For cobia (Figure 3.5.3.6), the primary communities that demonstrate relatively high levels of commercial fishing engagement and reliance are Montauk, New York; Cape May, New Jersey; and Point Pleasant, New Jersey. Communities with relatively substantial recreational engagement and reliance include the New York communities of Montauk and Hampton Bay; the New Jersey communities of Cape May and Point Pleasant; and the Virginia communities of Virginia Beach, Chincoteague, Norfolk, and Wachapreague.

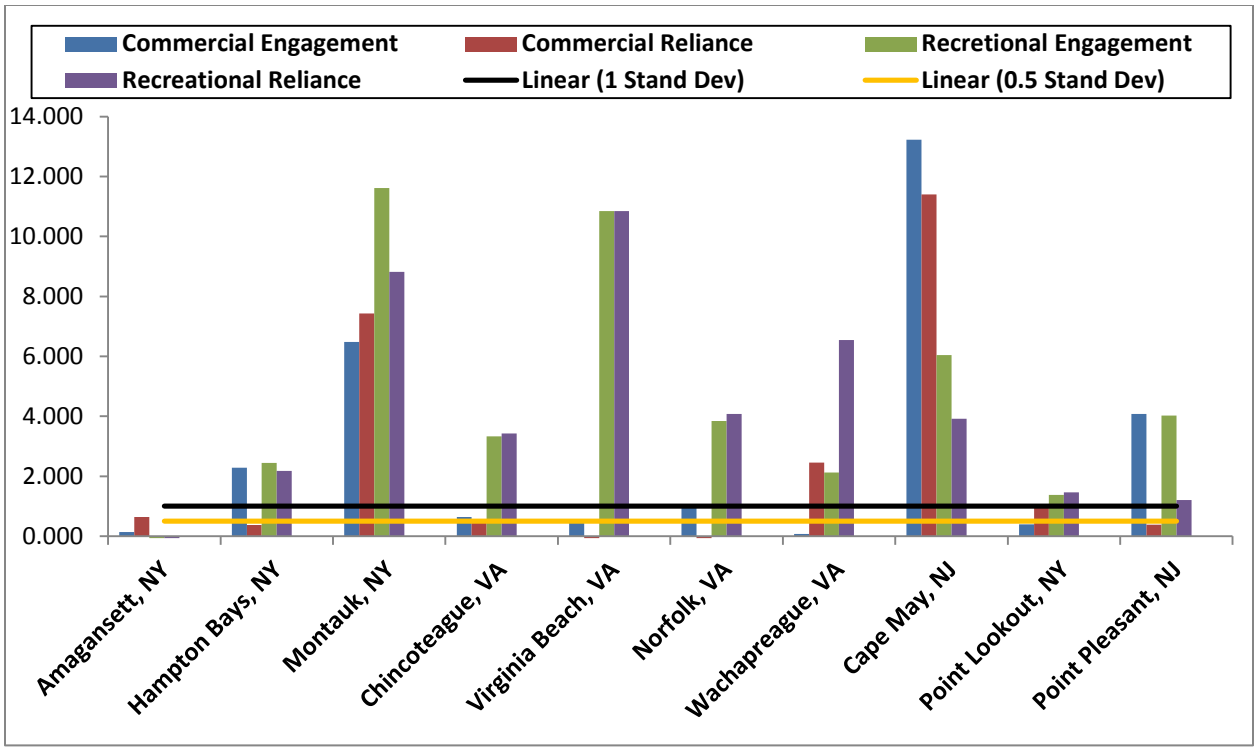

Figure 3.5.3.6. Commercial and recreational reliance and engagement for Mid-Atlantic communities with the top regional quotients for cobia.
Source: Southeast Regional Office/NEFSC, Social Indicator Database 2013.

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

To identify the potential for EJ concern, the rates of minority populations (non-white, including Hispanic) and the percentage of the population that was below the poverty line were examined. The threshold for comparison that was used was 1.2 times the state average for minority population rate and percentage of the population below the poverty line. If the value for the community or county was greater than or equal to 1.2 times the state average, then the community or county was considered an area of potential EJ concern. Census data for the year

2010 were used. Estimates of the state minority and poverty rates, associated thresholds, and community rates are provided in Table 3.5.4.1 and 3.5.4.2; note that only communities that exceed the minority threshold and/or the poverty threshold are included in the table**.**

Table 3.5.4.1. Environmental justice thresholds (2010 U.S. Census data) for counties in the Gulf region. Only coastal counties (west coast for Florida) with minority and/or poverty rates that exceed the state threshold are listed.

State	County/Parish	Minority Rate	Minority Threshold*	Poverty Rate	Poverty Threshold*
Florida		**47.4**	**56.88**	**13.18**	**15.81**
	Dixie	8.7	38.7	19.6	-3.79
	Franklin	19.2	28.2	23.8	-7.99
	Gulf	27	20.4	17.5	-1.69
	Jefferson	38.5	8.9	20.4	-4.59
	Levy	17.9	29.5	19.1	-3.29
	Taylor	26.2	21.2	22.9	-7.09
Alabama		**31.5**	**37.8**	**16.79**	**20.15**
	Mobile	39.5	-1.7	19.1	1.05
Mississippi		**41.9**	**50.28**	**15.82**	**18.98**
Louisiana		**39.1**	**46.92**	**15.07**	**18.08**
	Orleans	70.8	-25	23.4	-1.29
Texas		**39.1**	**46.92**	**15.07**	**18.08**
	Cameron	87.4	-24.7	35.7	-15.57
	Harris	63.5	-0.8	16.7	3.43
	Kenedy	71.7	-9	52.4	-32.27
	Kleberg	75	-12.3	26.1	-5.97
	Matagorda	51.9	10.8	21.9	-1.77
	Nueces	65.5	-2.8	19.7	0.43
	Willacy	89	-26.3	46.9	-26.77

*The county minority and poverty thresholds are calculated by comparing the county minority rate and poverty estimate to 1.2 times the state minority and poverty rates. A negative value for a county indicates that the threshold has been exceeded. No counties in Mississippi exceed the state minority or poverty thresholds.

Table 3.5.4.2. Environmental justice thresholds (2010 U.S. Census data) for counties in the South Atlantic region. Only coastal counties (east coast for Florida) with minority and/or poverty rates that exceed the state threshold are listed.

State	County	Minority Rate	Minority Threshold*	Poverty Rate	Poverty Threshold*
Florida		**47.4**	**56.88**	**13.18**	**15.81**
	Broward	52.0	-4.6	11.7	4.11
	Miami-Dade	81.9	-34.5	16.9	-1.09
	Orange County	50.3	-2.9	12.7	3.11
	Osceola	54.1	-6.7	13.3	2.51
Georgia		**50.0**	**60.0**	**15.0**	**18.0**
	Liberty	53.2	-3.2	17.5	0.5
South Carolina		**41.9**	**50.28**	**15.82**	**18.98**
	Colleton	44.4	-2.5	21.4	-2.42
	Georgetown	37.6	4.3	19.3	-0.32
	Hampton	59.0	-17.1	20.2	-1.22
	Jasper	61.8	-19.9	9.9	-0.92
North Carolina		**39.1**	**46.92**	**15.07**	**18.08**
	Bertie	64.6	-25.50	22.5	-4.42
	Chowan	39.2	-0.1	18.6	-0.52
	Gates	38.8	0.3	18.3	-0.22
	Hertford	65.3	-26.2	23.5	-5.42
	Hyde	44.5	-5.4	16.2	1.88
	Martin	48.4	-9.3	23.9	-5.82
	Pasquotank	43.4	-4.3	16.3	1.78
	Perquimans	27.7	11.4	18.6	-0.52
	Tyrrell	43.3	-4.2	19.9	-1.82
	Washington	54.7	-15.6	25.8	-7.72

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

Another type of analysis uses a suite of indices created to examine the social vulnerability of coastal communities and is depicted in Figures 3.5.4.1 and 3.5.4.2. The three indices are poverty, population composition, and personal disruptions. The variables included in each of these indices have been identified through the literature as being important components that contribute to a community's vulnerability. Indicators such as increased poverty rates for different groups; more single female-headed households; more households with children under the age of 5; and disruptions like higher separation rates, higher crime rates, and unemployment all are signs of populations having vulnerabilities. The data used to create these indices are from the 2005-2009 American Community Survey estimates at the U.S. Census Bureau. The thresholds of 1 and ½ standard deviation are the same for these standardized indices. Again, for those communities that exceed the threshold for all indices it would be expected that they would exhibit vulnerabilities to sudden changes or social disruption that might accrue from regulatory change.

Similar to the reliance index discussed at the beginning of **Section 3.5**, the vulnerability indices also use normalized factor scores. Comparison of vulnerability scores is relative, but the score is related to the percent of communities with similar attributes. The social vulnerability indices provide a way to gauge change over time with these communities but also provides a comparison of one community with another.

With regard to social vulnerabilities, the following South Atlantic and Gulf communities exceed the threshold of 0.5 standard deviation for at least one of the social vulnerability indices (Figure 3.5.4.1): Bayou La Batre, Alabama; Cocoa, Fort Pierce, Miami and Stuart in Florida; Golden Meadow and Grand Isle in Louisiana; and Wanchese, North Carolina. The communities of Bayou La Batre and the Florida communities of Cocoa, Fort Pierce and Miami all exceed the thresholds on all three social vulnerability indices. These communities have substantial vulnerabilities and may be susceptible to further effects from any regulatory change depending upon the direction and extent of that change.

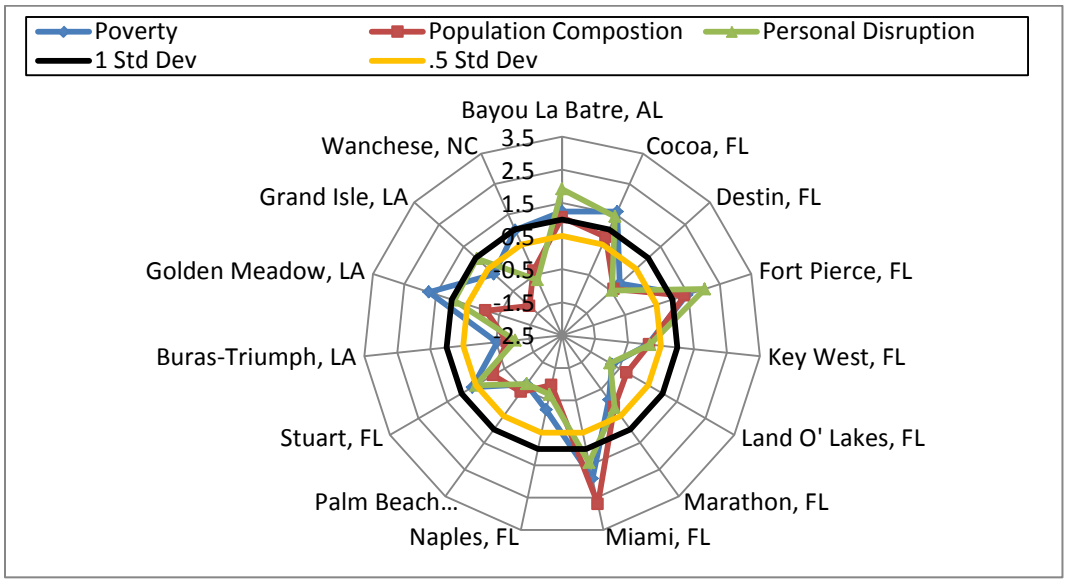

Figure 3.5.4.1. Social vulnerability indices for fifteen Gulf and South Atlantic communities with the top regional quotients for coastal pelagics.
Source: Southeast Regional Office, Social Indicator Database 2013.

With regard to social vulnerabilities for the Mid-Atlantic Region, the following communities exceed the threshold of 0.5 standard deviation for at least one of the social vulnerability indices (Figure 3.5.4.2): Norfolk, Hampton, and Chincoteague, Virginia; and Freeport, New York. The Virginia communities of Norfolk and Hampton exceed at least two thresholds on all three social vulnerability indices, but no communities exceed thresholds of all three indices. These communities are expressing substantial vulnerabilities and may be susceptible to further effects from any regulatory change depending upon the direction and extent of that change.

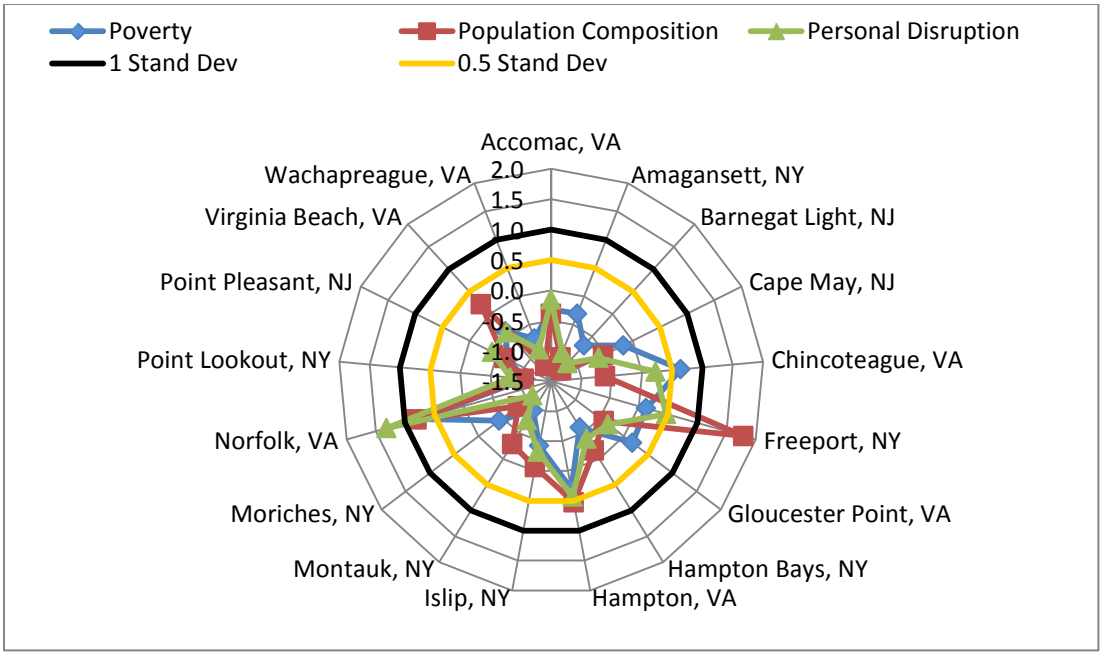

Figure 3.5.4.2. Social vulnerability indices for fifteen Mid-Atlantic communities with the top regional quotients for coastal pelagics.
Source: Southeast Regional Office, Social Indicator Database 2013.

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 amendment. No adverse human health or environmental effects are expected to accrue to this proposed amendment, nor are these measures expected to result in 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.

King mackerel and Spanish mackerel are part of an important commercial fishery throughout the South Atlantic and Gulf regions, and specifically in Florida, and the fish are also targeted by recreational fishermen. The actions in this proposed amendment are expected to incur social and economic benefits to users and communities by implementing management measures that would contribute to conservation of the coastal pelagic stocks and to maintaining the commercial and recreational sectors of the fishery. Although there would be some short-term impacts due to some of the proposed management measures, the overall long-term benefits are expected to contribute to the social and economic health of South Atlantic and Gulf coastal communities. Impacts (positive and negative) are expected to be minimal for fishermen and communities in the Mid-Atlantic region.

Finally, the general participatory process used in the development of fishery management measures (e.g., scoping meetings, public hearings, and open South Atlantic and Gulf Council meetings) is expected to provide sufficient opportunity for meaningful involvement by

potentially affected individuals to participate in the development process of this amendment and have their concerns factored into the decision process. Public input from individuals who participate in the fishery has been considered and incorporated into management decisions throughout development of the amendment. A public hearing was also held in the Mid-Atlantic region prior to final approval by the Councils.

3.6 Description of the Administrative Environment

3.6.1 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 B. In most cases, the Secretary has delegated this authority to NMFS.

The Gulf Council is responsible for fishery resources in federal waters of the Gulf. These waters extend to 200 nautical miles offshore from the nine-mile seaward boundary of the states of Florida and Texas, and the three-mile seaward boundary of the states of Alabama, Mississippi, and Louisiana. The Gulf 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 NMFS. Non-voting members include representatives of the U.S. Fish and Wildlife Service, U.S. Coast Guard (USCG), and Gulf States Marine Fisheries Commission.

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 South Atlantic Council has 13 voting members: one from NMFS; 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.

The Mid-Atlantic Fishery Management Council (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.

The Councils use their respective SSCs to review data and science used in assessments and fishery management plans/amendments. Regulations contained within FMPs are enforced through actions of the NMFS' Office for Law Enforcement, 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.

3.6.2 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 States Marine Fisheries Commission and the Atlantic States Marine Fisheries Commission in management of marine fisheries. These commissions were created to coordinate state regulations and develop management plans for interstate fisheries.

NMFS' State-Federal Fisheries Division is responsible for building cooperative partnerships to strengthen marine fisheries management and conservation at the state, inter-regional, and national levels. This division implements and oversees the distribution of grants for two national (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 and Natural Resources
http://portal.ncdenr.org/web/guest/

CHAPTER 4. ENVIRONMENTAL CONSEQUENCES

4.1 Action 1: Modify the Commercial Hook-and-Line Trip Limits for Gulf Migratory Group King Mackerel.

Alternative 1: No Action – Retain the existing commercial hook-and-line trip limits.

Western Zone: 3,000 lbs with no reduction

Eastern Zone Northern Subzone: 1,250 lbs until 75% of the quota is taken, at which time the trip limit decreases to 500 lbs

Eastern Zone Southern Subzone: 1,250 lbs until 75% of the quota is taken, at which time the trip limit decreases to 500 lbs

Alternative 2: Set the commercial hook-and-line trip limit at 2,000 lbs with no reduction.

Option a: For the Western zone

Option b: For the Eastern Zone Northern Subzone

Option c: For the Eastern Zone Southern Subzone

Preferred Alternative 3: Set the commercial hook-and-line trip limit at 3,000 lbs with no reduction.

Preferred Option a: For the Western zone

Option b: For the Eastern Zone Northern Subzone

Option c: For the Eastern Zone Southern Subzone

Preferred Alternative 4: Set the commercial hook-and-line trip limit at 1,250 lbs with no reduction.

Option a: For the Western zone

Preferred Option b: For the Eastern Zone Northern Subzone

Preferred Option c: For the Eastern Zone Southern Subzone

4.1.1 Direct and Indirect Effects on the Physical/Biological Environments

King mackerel are typically caught at the ocean surface and therefore neither hook-and-line nor run-around gillnet gear typically come in contact with bottom habitat. However, these gear types have the potential to snag and entangle bottom structures and cause tear-offs or abrasions (Barnette 2001). If gear is lost or improperly disposed of, it can entangle marine life. Entangled gear often becomes fouled with algal growth. If fouled gear becomes entangled on corals, the algae may eventually overgrow and kill the coral.

Management actions that affect the biological environment mostly relate to the impacts of fishing on a species' population size, life history, and the role of the species within its habitat. Removal of fish from the population through fishing can reduce the overall population size if harvest is not maintained at sustainable levels. Impacts of these alternatives on the biological environment would depend on the resulting reduction or increases in the level of fishing as a result of each alternative.

Indirect impacts of these alternatives on the physical and biological environments would depend on the resulting reduction or increase in the level of commercial king mackerel fishing effort in the Gulf of Mexico (Gulf). Based on Tables 2.1.2 and 2.1.3, the quota for each zone/subzone would still be reached before the end of the fishing year regardless of the trip limit. Therefore, no change in overall effort would be expected with **Options a-c** for **Alternatives 2-4** relative to **Alternative 1**, and no change to the impacts on the physical and biological environments would be expected.

4.1.2 Direct and Indirect Effects on the Economic Environment

Alternative 1 would retain the existing commercial hook-and-line trip limits for Gulf group king mackerel. Therefore, **Alternative 1** would not be expected to result in any change in the effects on the economic environment. All customary effort, harvest, and associated revenue and profit patterns to king mackerel fishermen and associated businesses would be expected to continue.

Alternatives 2-4 consider various adjustments to trip limits in the Western and Eastern Zones. In the analysis of economic effects for **Alternatives 2-4**, king mackerel fishermen are assumed to attempt to maximize net operating revenues per trip, subject to an array of constraints, including the prevailing king mackerel trip limit. It is also assumed that none of the trip limit adjustments considered would prevent fishermen from harvesting the totality of the king mackerel quota because, in response to a trip limit reduction, more trips can be scheduled. Other factors constant, the implementation of a less restrictive trip limit would be expected to afford some fishermen additional flexibility in trip planning and in the selection of the catch composition that could increase their net revenues, potentially resulting in direct economic benefits. However, larger trip limits would be expected to shorten the fishing season and may contribute to market gluts, which could depress the fishermen's net revenues. Trip limit increases would only benefit fishermen for whom the initial trip limit constituted a binding constraint. Conversely, the establishment of a binding and more restrictive trip limit would be expected to hamper fishermen's ability to select the catch composition that would maximize net revenues, potentially resulting in direct adverse economic effects. Negative economic effects are expected to be partially mitigated by market effects from price increases associated with reduced king mackerel harvests.

Alternative 2 would set a uniform king mackerel trip limit of 2,000 pounds (lbs) for all zones. For the Western Zone, **Alternative 2, Option a** would correspond to a 1,000 lb trip limit reduction. A trip limit adjustment from 3,000 lbs to 2,000 lbs is expected to be binding for about 29% of the king mackerel trips in the Western Zone. A cumulative distribution of king mackerel trips by zone and average king mackerel landings is provided in Table 4.1.2.2.

The reduction in the trip limit considered in **Alternative 2, Option a** is expected to result in negative direct economic effects by placing a binding constraint on about 29% of the king mackerel trips in the Western Gulf. Positive market effects due to potential increases in king mackerel prices are also expected. Although it is likely that the direct adverse economic effects that would stem from the reduction in the trip limit would be greater than the potential market effects, it is not possible to determine the net economic effects that would result from the trip limit adjustments because the catch composition and number of king mackerel trips that

fishermen would elect to take in response to a trip limit change are unknown. **Alternative 2, Option b** and **Option c** would increase the trip limit by 750 lbs in the Eastern Zone southern subzone. As indicated above, increases in the trip limit are expected to grant additional flexibility in trip scheduling and in the selection of a catch composition, potentially resulting in increased net revenues. These direct economic benefits may be offset to some degree as a result of adverse market effects due to the shortened season and the associated increase in the supply of king mackerel during the season and reduced prices. Because about 98% of king mackerel trips in the Eastern Zone Northern Subzone and 80% of the trips in the Eastern Zone Southern Subzone land 1,000 lbs of king mackerel or less, the economic effects that would to result from **Alternative 2, Option b** or **Option c** are expected to be negligible.

Table 4.1.2.2. King mackerel landings (lbs ww) per trip by zone – average cumulative percentages (2009/2010 to 2011/2012).

Pounds per trip	Western Zone	Eastern Zone	
		Northern	Southern
1,000 or less	46.4	98.4	79.2
1,250 or less	51.6	99.8	98.5
1,500 or less	60.4	99.9	99.0
2,000 or less	71.2	100.0	99.4
2,500 or less	86.0	100.0	99.6
3,000 or less	100.0	100.0	100.0

Source: National Marine Fisheries Service, Southeast Regional Office.

Alternative 3 would establish a king mackerel trip limit of 3,000 lbs for all zones. For the Western Zone, **Preferred Alternative 3 Option a** would implement the same trip limit as the status quo alternative. Therefore, economic effects are not expected to result from **Preferred Alternative 3 Option a.** In the Eastern Zone, **Alternative 3, Option b** and **Alternative 3, Option c** would more than double the current king mackerel trip limit. Any economic effects that would result from **Alternative 3, Option b** or **Alternative 3, Option c** are expected to be negligible because about 98% of king mackerel trips in the Eastern Zone Northern Subzone and 80% of the trips in the Eastern Zone Southern Subzone land 1,000 lbs of king mackerel or less.

Alternative 4 would set a king mackerel trip limit of 1,250 lbs across all zones. **Alternative 4, Option a** would correspond to a 1,750-lb trip limit reduction for the Western Zone. The reduction in the trip limit considered in **Alternative 4, Option a** is expected to result in negative direct economic effects by placing a binding constraint on 48.4% of the king mackerel trips in the Western Gulf. Positive market effects due to potential increases in king mackerel prices are also expected. Although it is likely that the direct adverse economic effects that would stem from the reduction in the trip limit would be greater than the potential positive market effects, it is not possible to determine the net economic effects that would result from **Alternative 4, Option a** because the catch composition and number of king mackerel trips that fishermen would elect to take in response to the trip limit reduction are unknown. **Preferred Alternative 4 Option b** and **Preferred Alternative 4 Option c** would maintain a king mackerel trip limit of 1,250 lbs and eliminate the step-down provision currently in effect once 75% of the ACL is harvested in the Eastern Zone. The economic effects that would result from **Preferred**

Alternative 4 Option b or **Preferred Alternative 4 Option c** are expected to be negligible because more than three quarters of king mackerel trips taken in the Eastern Zone land 1,000 lbs of king mackerel or less.

4.1.3 Direct and Indirect Effects on the Social Environment

This action proposes to modify the commercial hook-and-line trip limits for Gulf migratory group king mackerel due to problems expressed by fishermen who travel long distances to reach fishing grounds. For example, a trip limit of 1,250 lbs may not allow enough income on a trip to cover expenses. This problem is exacerbated when the trip limit is reduced to 500 lbs when 75% of the quota is met, which has led to requests from fishermen to remove the trip limit reduction. Although no additional impacts would be expected under **Alternative 1**, current trip limits would be preserved, thereby allowing these problems to continue. Conversely, other fishermen have endorsed the idea of a trip limit reduction because it functions to prolong the fishing season. Due to the pace at which the quota is usually caught, however, the trip limit reduction is often enacted shortly before the zone's allocation is landed and harvest for the season is closed (Table 2.1.1).

Some impacts would be expected from a reduction to the trip limits. However, only trips harvesting more than the **Alternative 1** trip limits would be impacted. Also, there would be a trade-off in expected impacts of reduced trip limits. For example, greater impacts would be expected the larger the reduction to the trip limit. But, each reduction to the trip limit would be expected to result in an increase to the fishing season length, thereby providing some benefits to fishermen.

Each option (**a**, **b**, and **c**) under **Alternatives 2-4** pertains to a particular zone. This discussion compares the alternatives by zone or subzone (each option in turn). In the Western Zone (**Options a**), no impacts would be expected from **Preferred Alternative 3 Option a**, as it retains the same trip limit as **Alternative 1** (3,000 lbs). A 2,000-lb trip limit (**Alternative 2**) would be expected to result in minor impacts, with those vessels that land between 2,000 and 3,000 lbs being affected by the trip limit reduction. However, the fishing season would be extended accordingly. The 1,250-lb trip limit (**Preferred Alternative 4 Options b** and **c**) would affect the most trips, specifically those vessels that would land between 1,250 and 3,000 lbs per trip. In turn, this alternative would also be expected to result in the longest fishing season.

The same pattern holds for both Eastern Zone subzones, except in the inverse. The alternatives and options under **Alternatives 2-4** specify larger trip limits than **Alternative 1,** providing benefits to fishermen by allowing greater landings per trip. But, they would each be expected to result in a shorter fishing season as the quota would be expected to be caught more quickly with a higher trip limit. The differences in fishing season lengths are projected to be very small (see Section 2.1). Also, **Alternatives 2-4** would remove the trip limit reduction for both subzones, benefiting fishermen who want larger trip limits, while also impacting the fleet by shortening the fishing season. Thus, for both Eastern Zone subzones, **Alternative 3, Options b** and **c** would provide fishermen with the largest trip limit but result in the shortest fishing season. The trip limit under **Alternative 2** is only 1,000 lbs per trip less than **Alternative 3** (including **Preferred Option a**), so impacts would be similar. **Alternative 4** (including **Preferred Option b**) would result in the fewest impacts compared to status quo, as the trip limit remains the same (1,250

lbs), but the trip limit reduction to 500 lbs when 75% of the quota is met would be removed. This would shorten the fishing season slightly, but enable fishermen to land more fish per trip.

The Western Zone trip limit specified in **Preferred Alternative 3 Option a** is the same as the **Alternative 1**. Therefore, the expected social effects on the king mackerel commercial fleet harvesting in the Western Zone under **Preferred Alternative 3 Option a** and **Alternative 1** would be the same. The effects on fishermen harvesting in the Eastern Zone Northern Subzone of **Preferred Alternative 4 Option b** are expected to benefit the commercial fleet fishing in the Northern Subzone by maximizing trip efficiency throughout the fishing season by removing the trip limit reduction when 75% of the quota is met, but retaining the 1,250 lb trip limit to maintain season length.

For some fishermen harvesting in the Eastern Zone Southern Subzone, the dockside value during the time of year when king mackerel are in the Southern Subzone could be too low to offset trip cost of gas and travel time. For these fishermen, increasing the trip limit to 2,000 lbs with no trip limit reduction under **Alternative 2**, **Option c** would be expected to increase trip efficiency. However, this could also shorten the season because the Southern Subzone quota would likely be met sooner under a higher trip limit, which could affect other fishermen and the whole component in the long term, in addition to affecting the price and supply for king mackerel during certain times of the year. Maintaining the 1,250 lb trip limit under **Preferred Alternative 4 Option c** would likely continue to restrict the efficiency of king mackerel trips for the fishermen who cannot or do not make trips under the current trip limit. However, removal of the trip limit reduction under this alternative is expected to benefit fishermen harvesting in the Southern Subzone by keeping the maximum poundage for the 1,250 lb trip limit throughout the fishing year instead of the sharp decrease to 500 lbs under **Alternative 1**.

4.1.4 Direct and Indirect Effects on the Administrative Environment

If **Options a-c** are all chosen as preferred for any one of **Alternatives 2-4**, the burden on the administrative environment would be reduced relative to **Alternative 1** because all the trip limits in the Gulf would be the same. This situation would help enforcement, particularly in areas near the borders of two zones. The administrative burden would also be reduced by choosing any of **Alternatives 2-4** for the Northern and Southern Subzones because all the alternatives remove the trip limit reduction at 75% of the quota. **Alternative 1** requires the National Marine Fisheries Service (NMFS) to process two regulatory notices (trip limit reduction and closure) in most years for each subzone. However, in some years the landings are at such a high rate that the trip limit reduction cannot be implemented before a closure is necessary. This creates confusion among constituents and requires additional outreach by NMFS staff.

4.2 Action 2: Change the Fishing Year for Gulf Migratory Group King Mackerel for the Eastern Zone.

Alternative 1: No Action - the fishing year remains July 1 – June 30**.**

Alternative 2: Change the fishing year for Gulf group king mackerel season to September 1 – August 31.

Option a: For the Eastern Zone Northern Subzone
Option b: For the Eastern Zone Southern Subzone

Preferred Alternative 3: Change the fishing year for Gulf group king mackerel season to October 1 – September 30.

Preferred Option a: For the Eastern Zone Northern Subzone
Option b: For the Eastern Zone Southern Subzone

4.2.1 Direct and Indirect Effects on the Physical/Biological Environments

Alternative 1 would maintain the commercial king mackerel fishing year at status quo, opening on July 1 and closing on June 30. As such, any direct or indirect effects to the physical, biological, and/or ecological environment would not be anticipated to be any different than those which currently occur. The impacts on the physical environment from coastal migratory pelagic (CMP) fishing are detailed in Section 4.1.1.

Alternatives 2 and **3** would move the start date of the commercial king mackerel fishing year to later in the calendar year. For both alternatives, **Option a** would move the start date for the Northern Subzone, and **Option b** would move the start date for the Southern Subzone. Such a move may result in decreased fishing pressure. Late summer into late fall corresponds with the height of hurricane season, and temporal effort reduction resulting from poor weather conditions may result in slower removal rates and a prolonged fishing season in some or all subzones. However, "bad weather days" are not anticipated to be frequent enough to result in a subzone not catching its quota. Additionally, a later start date might discourage movement of fishers from the Atlantic coast of Florida into the Florida Panhandle as has been the case for several years. A change in the start date of the fishing year may force traveling fishers to pursue other species in the absence of an open commercial king mackerel fishing year in mid-summer months; however, this temporal shift in effort is not anticipated to result in a subzone not catching its quota. **Alternative 3, Preferred Option a** would result in these impacts to the Northern Subzone. The Western Zone and Eastern Zone Southern Subzone would not change from the current July-June fishing year.

In summary, it is not possible to accurately predict what might happen in terms of changes in effort, but from a biological standpoint, there are no differences in the impacts to the king mackerel stock for any of the alternatives. All subzones are predicted to catch their respective annual quotas regardless of fishing year start dates, and accountability measures are in place to ensure quotas are not exceeded and overfishing does not occur. Consequently, no biological effects are anticipated from these alternatives because they merely address shifting of harvest time to coincide with availability of the resource in different areas.

4.2.2 Direct and Indirect Effects on the Economic Environment

Alternative 1 would maintain the current July 1 - June 30 fishing season in the Eastern Zone. Therefore, **Alternative 1** would not be expected to result in any change in the effects on the economic environment. All customary effort, harvest, and associated revenue and profit patterns to king mackerel fishermen and associated businesses would be expected to continue. As discussed in Sections 1.1 and 2.2, the timing of the fishing season, in combination with the trip limit, affects when, or if, the quota is taken and commercial closures occurs within the Eastern Zone. The average monthly percentage of the king mackerel quota landed in the Eastern Zone is provided in Figure 4.2.2.1. The timing of the fishing season and pace at which the quota is taken may also affect vessel efficiency, the quality of fish harvested, and the distribution of harvest across vessels, communities, and states. If any of these effects adversely impact the economic benefits associated with king mackerel commercial harvest, these adverse economic effects would continue under **Alternative 1**.

In response to the implementation of **Alternative 2, Option a**, the impacts on fishing trips, and associated economic benefits, in the Northern Subzone are expected to be relatively small because 15% of the king mackerel harvested in the Northern Subzone have been landed during the months of July and August since the 2004-2005 fishing year (Figure 4.2.2.1). Therefore, disruptions to usual trip planning and catch composition as a result of **Alternative 2, Option a** are expected to be minimal, with relatively small associated economic effects. Although disruptions to trip planning and catch composition would be expected to result in adverse economic effects, the magnitude of these effects cannot be determined with available data.

The implementation of **Alternative 2, Option b** would not be expected to result in any measureable impact on fishing trips, catch composition because, on average, less than 0.1% of the king mackerel harvested in the Southern Subzone are harvested during the months of July and August (Figure 4.2.2.2). Therefore, disruptions to customary trip planning and catch composition and economic effects due to **Alternative 2, Option b** are expected to be nil or negligible.

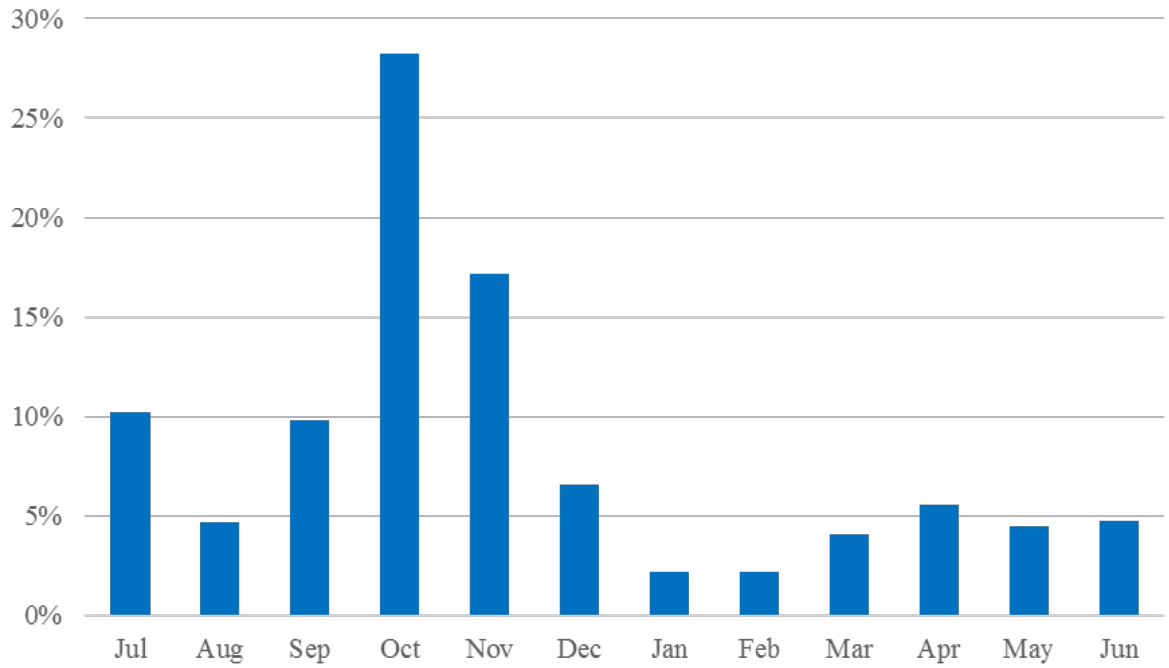

Figure 4.2.2.1. Average monthly percentage of Gulf migratory group king mackerel landed in the Eastern Zone Northern Subzone (2004/05 to 2010/11).
Source: Accumulated Landings System data (7/12/2012)

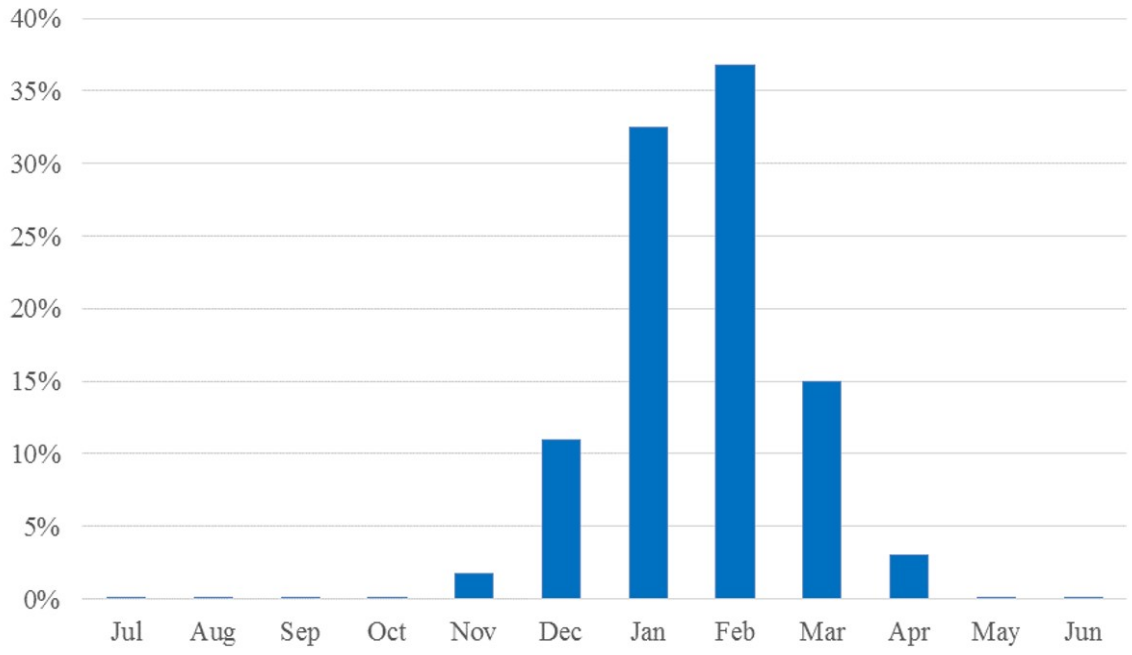

Figure 4.2.2.2. Average monthly percentage of Gulf migratory group king mackerel landed in the Eastern Zone Southern Subzone (2004/05 to 2010/11).
Source: Accumulated Landings System data (7/12/2012)

The expected concerns and associated economic effects of **Preferred Alternative 3 Option a,** and **Option b** would be of a similar nature to those discussed in **Alternative 2,** but greater because **Alternative 3, Options a-b** would result in greater shifts from the current fishing year and thus, greater disruptions to usual trip planning. **Preferred Alternative 3 Option a,** and **Option b** would establish an October 1 - September 30 king mackerel fishing season in the Northern and Southern Subzones.

The October 1-September 30 fishing season proposed in **Preferred Alternative 3 Option a** would be expected to impact a sizeable portion of the king mackerel annual landings in the Northern Subzone. On average, about 25% of the king mackerel landings in the Northern Subzone have been landed between July 1 and September 30 since the 2004-2005 fishing year. Therefore, the season shift under consideration would be expected to result in sizeable adverse economic effects due to disruptions in customary trip planning. In contrast, **Alternative 3 Option b** is not expected to result in measurable economic effects because less than 0.1% of the king mackerel landings in the Southern Subzone are harvested between July 1 and September 30.

4.2.3 Direct and Indirect Effects on the Social Environment

The Gulf group king mackerel fishing zones are subject to quota closures, such that the timing of the fishing season, in combination with the trip limit, affects when, or if, the quota is taken and, in turn, the closure occurs. Although additional impacts would not be expected from retaining **Alternative 1**, this action is being considered due to problems expressed by fishermen for the northern parts of the Gulf, regarding the timing of the season opening. **Alternative 1** would preserve the status quo fishing season for the both subzones, thereby allowing these problems to continue.

The alternatives propose to modify the fishing season start date to begin September 1 (**Alternative 2**) or October 1 (**Alternative 3**) for each of the subzones (**Options a** and **b**). There would be a risk that, if the season opens too late in the year (**Alternative 3**), the schools of migrating king mackerel may have already moved further south and thus be unavailable to fishermen who do not travel to other zones. For the Northern Subzone, (**Preferred Alternative 3 Option a**), these potential negative effects of the later opening could affect fishermen harvesting in this area. Another factor, which could limit the benefits of a later opening date, would arise if foul weather, such as hurricanes, interferes with fishing trips before the quota can be harvested. Thus, an opening of October 1 may be too late in the calendar year to provide expected benefits from season modification. Modifying the opening season date to September 1 (**Alternative 2**) would be expected to result in greater benefits than **Alternatives 1** and **3** by better aligning the fishing season with opportune king mackerel fishing conditions. Nevertheless, any expected benefits may be lessened if a shorter season results because the quota was caught faster.

4.2.4 Direct and Indirect Effects on the Administrative Environment

Alternative 1 would result in no change in the current administrative environment. **Alternative 2, Option a,** and **Option b** could result in short-term increased administrative burden if quotas were caught more quickly as a result of larger numbers of large king mackerel being more easily harvested closer to shore. The faster pace of landings would require faster notification of subzone closures. **Preferred Alternative 3 Option a,** and **Option b** would likely result in similar administrative burdens as described for **Alternative 2**. Increased administrative burden is likely if different options are selected for different alternatives. Law enforcement may find it difficult to enforce different fishing seasons, especially near the Florida/Alabama state line; however, even with the current simultaneous openings, each zone has different closing dates. Other administrative burdens that may result from all of the alternatives considered would take the form of development and dissemination of outreach and education materials to inform fishery participants of any changes to the fishing season.

4.3 Action 3: Establish Transit Provisions for Travel through Areas that are Closed to King Mackerel Fishing.

Alternative 1: No Action – do not establish a transit provision.

Alternative 2: Establish a provision allowing transit through the Florida west coast Northern and Southern Subzones when those zones are closed for vessels possessing Atlantic migratory group king mackerel that were legally harvested in the exclusive economic zone (EEZ) off Monroe County.

Preferred Alternative 3: Establish a provision allowing transit through areas closed to king mackerel fishing for vessels possessing king mackerel that were legally harvested in the EEZ off areas open to king mackerel fishing.

Alternative 4: Establish a provision allowing transit through the Eastern Zone, Northern Subzone when that area is closed for vessels possessing king mackerel that were legally harvested in the EEZ off Collier County.

Note: For Alternatives 2-4, the following conditions apply:
Only for vessels in direct and continuous transit and with gear stowed
Only for fishermen holding a federal commercial king mackerel permit

4.3.1 Direct and Indirect Effects on the Physical/Biological Environments

The impacts on the physical environment from CMP fishing are detailed in Section 4.1.1. Indirect impacts of these alternatives on the physical and biological environments would depend on the resulting reduction or increases in the level of fishing effort in the commercial king mackerel sector of the CMP fishery. If fishing effort does not change, there would be no expected additional impacts from **Alternatives 2-4** versus **Alternative 1**.

A reduction of the indirect impacts would only occur with any of the alternatives if fishermen forego fishing opportunities because of their inability to transit through closed areas. This is most likely to occur in the Eastern Zone Southern Subzone. This subzone, comprised of Collier and Monroe Counties from November 1 - March 31, usually closes in early spring (see Table 2.2.1). Beginning April 1 of each year, Monroe County is considered to contain Atlantic migratory group king mackerel and the Southern Subzone is comprised of only Collier County. As a result, federal waters off Monroe County are part of an open zone, while federal waters off Collier County remain part of the closed Southern Subzone. Some fishermen fish in the northern portion of Monroe County, which is a sparsely populated area. To land those fish they must travel to the Florida Keys where dealers in Monroe County are located. **Alternatives 2-4** would allow fishermen who legally harvest king mackerel from Monroe County to transport and land their catch in other areas of the Gulf that are closed to king mackerel fishing. If these fishermen are more likely to fish for king mackerel if they can land in Collier County, then effort could increase relative to **Alternative 1** and the impacts to the physical and biological environments could increase. If levels of effort do change, the least restrictive alternative would have the largest impact on the biological and physical environments. The alternatives from least restrictive to most restrictive are **Preferred Alternative 3**, **Alternative 2**, **Alternative 4**, and **Alternative 1**.

4.3.2 Direct and Indirect Effects on the Economic Environment

Alternative 1 would not establish a transit provision. The no action alternative would continue to prohibit the possession of legally harvested king mackerel when transiting through closed areas. **Alternative 1** would not affect the harvest or other customary uses of the king mackerel resources. Therefore, **Alternative 1** is not expected to result in any change in effects on the economic environment.

Alternatives 2 and 4, and **Preferred Alternative 3** would implement transit provisions for king mackerel legally harvested in specific areas. **Alternative 2** would allow Atlantic migratory group king mackerel harvested in the EEZ off Monroe County to transit through the Florida west coast Northern and Southern Subzones. The most flexible transit provision would occur under **Preferred Alternative 3**, which would allow vessels with legally harvested king mackerel to transit through any area closed to king mackerel fishing. Vessels possessing king mackerel legally harvested in the EEZ off Collier County would be permitted to transit through the Eastern Zone Northern Subzone under **Alternative 4**.

Reducing binding constraints or eliminating restrictive regulations would generally be expected to benefit fishermen and result in economic benefits. The relaxation of the transit prohibition is expected to afford fishermen more flexibility in trip planning and provide opportunities to adjust the cost structure and catch composition of king mackerel trips. Under the status quo, some fishermen may elect to forego fishing for king mackerel at certain times of the year because of the transit prohibition through closed areas, and the potential increases in trip costs that would result from detours around closed areas to legally land king mackerel. In response to the establishment of favorable transit provisions, fishermen who have elected to limit their king mackerel fishing could increase their harvest. However, the potential increase in king mackerel landings by these fishermen could result in the commercial quota being reached sooner,

triggering an earlier closure relative to status quo. Additionally, distributional effects would be expected to occur because, when a species is managed with a quota and the quota is routinely harvested, increased harvest by some fishermen must be matched by harvest reduction for other fishermen. As a result, while some fishermen may experience a net increase in economic benefits, others may experience a reduction in economic benefits if they are not able to adapt. Overall, however, the economic effects expected to result from a relaxation of transit restrictions are anticipated to be positive because the potential increases in net revenues that would result from the added flexibility in selecting catch composition and from costs savings from lower fuel expenditures are assumed to outweigh potential adverse economic effects that could result from earlier closures.

All other parameters equal, more lenient transit provisions granted during longer time periods would be expected to result in greater economic benefits (though the opportunity for distributional effects increases). Thus, **Preferred Alternative 3** is expected to result in the greatest increase in economic benefits. Although **Alternatives 2** and **4** are also expected to result in an increase in economic benefits relative to **Alternative 1**, it is not possible to rank these alternatives because the transit provisions proposed in these alternatives apply to different areas and time intervals.

4.3.3 Direct and Indirect Effects on the Social Environment

Transit provisions are expected to be beneficial to fishermen, dealers, and associated businesses. Allowing vessels to transit through closed areas to land fish harvested in open areas, with specifications for gear stowing, could reduce potential negative effects of unnecessary travel just to avoid closed areas to offload legally caught fish. Transit provisions that enable a fishing trip to be shorter in duration would allow fishermen to spend less time on the water due to the reduced travel time, thereby also supporting safety at sea. Also, harvest in an open zone or subzone could provide a supply of fish to areas that are closed by allowing vessels to land in the closed areas. **Alternative 1** would not allow for any of these benefits to the CMP fleet.

On the other hand, there may be a trade-off in these expected benefits as they could affect harvest patterns and fishermen's behavior. For example, if some fishermen are able to make additional fishing trips as a result of the reduced travel time to offload fish, effort would increase, resulting in less fish available for other fishermen. Thus, it is reasonable to expect that the quota would be caught in a shorter period of time, thereby decreasing the social benefits provided by the transit provisions.

The remaining alternatives differ in terms of which zone or subzone is proposed for transit, but would be expected to provide positive social effects for CMP fishermen and businesses that rely on a fresh supply of king mackerel. **Preferred Alternative 3** would provide the most flexibility in landing sites compared to **Alternatives 2** and **4**, by allowing transit through any closed area, as long as the king mackerel had been caught in an open area. By allowing transit through any closed area, **Preferred Alternative 3** would be expected to provide benefits to more fishermen than the other alternatives.

Alternatives 2 and 4 specify restrictions as to which closed areas may be transited, at what time, and for fish harvested from a particular area. These restrictions reduce the flexibility of the

transit provision, resulting in fewer benefits, but potentially less disruption to normal harvest patterns. **Alternative 2** would provide more flexibility than **Alternative 4**, as the entire Eastern Zone may be transited with fish legally harvested off Monroe County. The transit provisions provided by these alternatives would provide benefits to fewer fishermen compared to **Preferred Alternative 3**, as only sub-sets of fishermen who need to transfer through the closed area, under the terms outlined by each alternative, would benefit.

4.3.4 Direct and Indirect Effects on the Administrative Environment

Allowing transit through closed areas would increase the burden on enforcement. Currently, with **Alternative 1**, fishermen cannot possess king mackerel in excess of the bag limit in a closed zone or subzone. **Alternatives 2-4** would allow vessels in direct and continuous transit with gear stowed to possess king mackerel within a closed area, requiring enforcement officers to make a determination about these conditions. **Alternatives 2** and **4** would restrict transit in some closed areas but allow it in others and would be the most difficult to enforce. **Alternative 1** would prohibit transit in all closed areas and **Preferred Alternative 3** would allow transit through all closed areas, both of which would be easier for enforcement officers and fishermen to remember in which areas transit would be allowed and in which it would not.

4.4 Action 4 – Establish Regional Annual Catch Limits (ACLs) for Atlantic Migratory Group King Mackerel and Spanish Mackerel

4.4.1 Action 4.1 – Establish Commercial Quotas for Atlantic Migratory Group King Mackerel

Alternative 1: No Action - retain one commercial quota for the Atlantic migratory group king mackerel.

Alternative 2: Establish a separate commercial quota of Atlantic migratory group king mackerel for North Carolina based on **Options a-d** below. Monitoring and implementation would be based on **Options e-g** below.

Option a: The North Carolina quota would be the Atlantic migratory group ACL times the average of the proportion of landings in North Carolina from 2007/2008 through 2011/2012.

Option b: The North Carolina quota would be the Atlantic migratory group ACL times the average of the proportion of landings in North Carolina from 2002/2003 through 2011/2012.

Option c: The North Carolina quota would be the Atlantic migratory group ACL times (50% of the proportion of landings in North Carolina 2002/2003 through 2011/2012 and 50% of the proportion of landings in North Carolina 2007/2008 through 2011/2012).

Option d: The North Carolina quota would be the Atlantic migratory group ACL times the average of the proportion of landings in North Carolina from 1997/1998 through 2011/2012.

Option e: NMFS would monitor landings in both North Carolina and the rest of the states and close the EEZ of each area when the respective quota is met or expected to be met.

Option f: North Carolina would monitor landings in North Carolina and prohibit landings in North Carolina when the North Carolina quota is met or projected to be met. NMFS would monitor landings in the rest of the states and close the entire EEZ when the General Atlantic quota is reached.

Option g: North Carolina would monitor landings in North Carolina and inform NMFS when the North Carolina quota is met or expected to be met; NMFS would then close the EEZ off North Carolina. NMFS would monitor landings in the rest of the states and close the EEZ off those states when the quota is reached.

Preferred Alternative 3: Establish quotas for Northern and Southern Zones for Atlantic migratory group king mackerel based on **Options a-d** below. The Northern Zone would include the EEZ off states from North Carolina north to New York. The Southern Zone would include the EEZ off South Carolina, Georgia, and the east coast of Florida. NMFS would monitor landings in both zones and close the EEZ of each zone when the respective quota is reached.

Option a: Each zone quota would be the Atlantic migratory group ACL times the average of the proportion of landings in that zone from 2007/2008 through 2011/2012.

Preferred Option b: Each zone quota would be the Atlantic migratory group ACL times the average of the proportion of landings in that zone from 2002/2003 through 2011/2012.

Option c: Each zone quota would be the Atlantic migratory group ACL times the average (50% of the proportion of landings from that zone 2002/2003 through 2011/2012 and 50% of the proportion of landings from that zone 2007/2008 through 2011/2012).

Option d: Each zone quota would be the Atlantic migratory group ACL times the average of the proportion of landings in that zone from 1997/1998 through 2011/2012.

Preferred Alternative 4: Allow for transfer of quota between regions. North Carolina and Florida would be designated as the coordinating states for any transfer request, in consultation with other states.

4.4.1.1 Direct and Indirect Effects on the Physical/Biological Environments

There are no direct biological or ecological effects from establishing regional commercial quotas for Atlantic migratory group king mackerel. The ACL and accountability measures (AMs) provide biological protection and prevent overfishing. This action does not change the level of catch, only how it would be distributed.

Alternative 1 would retain one commercial quota for Atlantic migratory group king mackerel and this would not change the existing level of physical or biological effects.

Establishment of a separate commercial quota for North Carolina (**Alternative 2**) or separate commercial quotas for a Northern Zone and Southern Zone (**Alternative 3**), along with the options, would not change the existing level of biological/ecological effects. The commercial ACL and AMs provide biological protection and prevent overfishing of Atlantic migratory group king mackerel. **Alternatives 2** and **3** would not change the level of catch of Atlantic migratory group king mackerel, only how it is distributed.

Preferred Alternative 4 allows for transfer of commercial quota between the North Carolina commercial quota and the commercial quota for the remaining areas. This would help prevent commercial quota overages and reduce the potential for any physical or biological/ecological effects.

4.4.1.2 Direct and Indirect Effects on the Economic Environment

Typically, Atlantic migratory group king mackerel migrate from Florida northwards and the peak of the season in North Carolina occurs months later than it does in Florida. However, there is concern that if the future commercial ACL for Atlantic migratory group king mackerel is reduced, the entire quota could be caught off of Florida before the fish migrate towards North Carolina. **Alternative 2** seeks to insure that king mackerel fishermen from North Carolina have continued access to the shared stock by providing a separate quota for that state. **Alternative 3** would divide the Atlantic migratory group king mackerel ACL into two zones, a Northern Zone that would have a quota for the states from North Carolina northwards, and a Southern Zone that would have a quota for South Carolina, Georgia, and Florida.

As shown in Table 4.4.1.2.1, in recent years, North Carolina has recorded a declining proportion of the total Atlantic migratory group king mackerel commercial landings. From the 2002/2003 season through the 2007/2008 season, commercial king mackerel landings in North Carolina averaged 41.65%. However, from the 2008/2009 season through the 2011/2012 season, the proportion of the commercial landings from North Carolina averaged 20.6%. The reason for the decline of landings in North Carolina is not clear. Only in the 2009/2010 season did the commercial sector come close to catching their entire quota (96.1%). As a result, quota closure has not been a factor in the decline of the proportion of king mackerel landings in North Carolina.

Table 4.4.1.2.1. Atlantic migratory group king mackerel commercial landings percentages for North Carolina vs. the rest of the Atlantic.

	North Carolina		FL, GA, and SC		
	% of Quota/ACL[1]	% of Total Landings	% of	% of Total Landings	**Unused Quota/ACL**
2002 - 2003	20.9%	44.7%	25.9%	55.3%	53.1%
2003 - 2004	16.0%	34.3%	30.5%	65.5%	53.5%
2004 - 2005	28.2%	38.2%	45.5%	61.7%	26.3%
2005 - 2006	31%	51.1%	29.5%	48.6%	39.3%
2006 - 2007	32.4%	40.2%	48.3%	59.8%	19.3%
2007 - 2008	29.8%	41.4%	41.9%	58.3%	28.3%
2008 - 2009	25.7%	30.7%	58.1%	69.3%	16.2%
2009 - 2010	21.2%	22%	74.9%	77.9%	3.9%
2010 - 2011	7.9%	8.6%	83.9%	91.4%	8.2%
2011 - 2012	11.7%	21.1%	43.7%	78.9%	44.6%

Note: Landings from the mid-Atlantic region equal <1%.
[1] The commercial quota for Atlantic migratory group king mackerel during these fishing years was 3,710,000 lbs.
Source: Southeast Fisheries Science Center.

Table 4.4.1.2.2 shows the expected economic effects of Alternative 2, Options a-d based on the current commercial ACL for king mackerel of 3.88 mp. Because landings have been relatively volatile from one fishing year to the next, the average landings from the 2002/2003 through 2011/2012 season were compared to the quotas that would result under each option. Under each option, both areas would receive a quota that would be higher than the average landings in each respective area from the 2002/2003 through 2011/2012 fishing years. This result occurs because, as previously discussed, the total South Atlantic migratory group commercial king mackerel quota has not been harvested during any fishing year during this period. Assuming an ex-vessel price of $2.15 per pound (2011 dollars) and the entire ACL is harvested, fishermen in North Carolina would be expected to receive an increase in ex-vessel revenue ranging from approximately $278,000 to $1,312,000 under the different options. Under the same assumptions, fishermen in the other states would be expected to receive an increase in ex-vessel revenue ranging from approximately $1,396,000 to $2,431,000.

Table 4.4.1.2.3 shows the expected economic effects of Alternative 3, Options a-d assessed under the same assumptions utilized in the assessment of Alternative 2. Under Alternative 3, fishermen in the Northern Zone would be expected to receive an increase in ex-vessel revenue ranging from approximately $271,000 to $1,322,000 under the different options, and fishermen in the Southern Zone would be expected to receive an increase in ex-vessel revenue ranging from approximately $1,396,000 to $2,431,000, if the full ACL is landed in future years.

All of the options under Alternatives 2 and 3 have the same overall economic effect. Differences lie in the allocations between North Carolina or North Carolina northwards, versus the allocation for the rest of the Atlantic coast. Options that benefit North Carolina (or North Carolina northwards) would reduce the potential direct economic effects for the remaining states. The proportion of the allocation assigned to just North Carolina or North Carolina northwards

changes very little as landings north of North Carolina typically are rather small. Therefore, the economic effects between the same options of Alternatives 2 and 3 are negligible. The options that have the potential to provide the greatest positive direct economic benefit to North Carolina (and North Carolina northwards) in increasing order are Option d, Option b (Alternative 3, Option b is the preferred option), Option c, and Option a. The reverse order of these options has the potential to provide the greatest positive direct economic benefit the rest of the Atlantic coast. In comparison to Alternative 1, all of the options of Alternatives 2 and 3 are not expected to result in any changes to the overall economic effects. However, compared to Alternative 1 each of the options in Alternatives 2 and 3 could result in increased economic benefit to fishermen in North Carolina (and northwards) should the entire ACL potentially be taken south of North Carolina prior to the fish migrating northwards.

Table 4.4.1.2.2. Expected economic effects of Action 4.1, **Alternative 2** (2011 $).

Alternative 2	North Carolina KM Allocation (Percent)	North Carolina KM Allocation (Pounds)	Difference Between Allocation and Avg. Landed 2002/2002-2011/2012	Value of Difference in 2011 Dollars	General Atlantic Group KM Allocation (Percent)	General Atlantic Group KM Allocation (Pounds)	Difference Between Allocation and Avg. Landed 2002/2003-2011/2012	Value of Difference in 2011 Dollars
Option a	24.8%	962,240	129,252	$277,892	75.2%	2,917,760	1,127,467	$2,424,054
Option b	33.2%	1,288,160	455,172	$978,620	66.8%	2,591,840	801,547	$1,723,326
Option c	29.0%	1,125,200	292,212	$628,256	71.0%	2,754,800	964,507	$2,073,690
Option d	37.2%	1,443,360	610,372	$1,312,300	62.8%	2,436,640	646,347	$1,389,646

Table 4.4.1.2.3. Expected economic effects of Action 4.1, **Alternative 3** (2011 $).

Alternative 3	Northern Zone KM Allocation (Percent)	Northern Zone KM Allocation (Pounds)	Difference Between Allocation and Avg. Landed 2002/2003-2011/2012	Value of Difference in 2011 Dollars	Southern Zone KM Allocation (Percent)	Southern Zone KM Allocation (Pounds)	Difference Between Allocation and Avg. Landed 2002/2003-2011/2012	Value of Difference in 2011 Dollars
Option a	24.8%	962,240	126,216	$271,364	75.2%	2,917,760	1,130,503	$2,430,581
Preferred Option b	33.3%	1,292,040	456,016	$980,434	66.7%	2,587,960	800,703	$1,721,511
Option c	29.1%	1,129,080	293,056	$630,070	70.9%	2,750,920	963,663	$2,071,875
Option d	37.4%	1,451,120	615,096	$1,322,456	62.6%	2,428,880	641,623	$1,379,489

As previously discussed, the effects depicted in Tables 4.4.1.2.2 and 4.4.1.2.3 are based on a comparison of the average landings from the 2002/2003 through 2011/2012 fishing years and assume each area harvests their quota in the future. The projected economic benefits would be reduced if the quota in any area is not harvested (the transfer of unharvested quota would be allowed under **Preferred Alternative 4** and is discussed below). Also, as shown in Table 4.4.1.2.1, the distribution of harvest across the respective areas has been variable since the 2002/2003 fishing year and fishermen in some areas have harvested higher proportions of the ACL than would be allocated under the proposed alternatives and options. As a result, the proposed alternatives may result in a transfer of economic benefits from fishermen in one area to those in another. The information available at the time of this analysis does not support a determination that the gain of revenue by fishermen in one area at the expense of fishermen in another would result in a net (overall) gain or loss.

Options e, f, and **g** under **Alternative 2** may appear to be primarily administrative in nature because they address monitoring and quota closure. However, these options vary in who would be responsible for harvest monitoring, when closures may occur, and which areas would be closed. As a result, these options may have different economic consequences. North Carolina would be responsible for monitoring landings in North Carolina under **Option f** and **Option g**, and NMFS would be responsible for monitoring landings in all states under **Option e**, and in all states but North Carolina under **Option f** and **Option g.** Available information does not support a determination that monitoring landings in North Carolina would be more or less accurate, timely, or effective under either state (North Carolina) or NMFS management. The additional need for coordination and communication between North Carolina and NMFS under state monitoring could result in closure delay, if appropriate. However, the potential for problems, and associated adverse economic consequences, should be low. The more significant differences would be expected to be associated with when and where closures may occur. Under **Option e** and **Option g,** the EEZ off an area would be closed if the quota for that area is harvested (or projected to be harvested). This may result in the total ACL not being harvested, and associated economic benefits foregone, if the quota in the remaining area is not harvested. As a result, the expected economic effects of **Option e** and **Option g**, other than as discussed above with respect to monitoring capabilities, would be expected to be indistinguishable. Under **Option f**, however, although landing in North Carolina would be prohibited after the North Carolina quota is harvested (or projected to be harvested), the EEZ off North Carolina, and elsewhere, would only be closed if the entire ACL is harvested. As a result, **Option f** would be expected to result in the greatest likelihood the total ACL would be harvested and the associated economic benefits received.

Preferred Alternative 4, which would allow quota transfers between regions, would be expected to increase the probability the overall ACL would be harvested. As previously discussed, not harvesting the total ACL would be expected to result in foregone revenue and associated economic benefits. Although some quota may remain unharvested (not all of the unharvested quota may be transferred, or conditions may not allow all of the quota transferred to be harvested), any portion that is transferred and subsequently harvested would result in increased revenue. Therefore, **Preferred Alternative 4** would be expected to result in increased economic benefits compared to **Alternative 1**.

4.4.1.3 Direct and Indirect Effects on the Social Environment

Allocation to one state or an additional separation of the commercial ACL for king mackerel into zones would be expected to have similar social effects as sector allocations, in that there could likely be some changes in fishing behavior and impacts to fishermen, communities, and businesses associated with the king mackerel portion of the CMP fishery. The mere act of separating a particular threshold into further allocation could have the perception of creating scarcity in that limits have been imposed on each individual allocation, which could contribute to restricted access to the resource for some user groups. Each subsequent division could drive perceptions of scarcity and could change the fishing behavior of those within a particular sector. These perceptions and related effects on fishermen would not be expected under **Alternative 1**.

There has been concern from North Carolina representatives and fishermen about potential limited opportunity to fish for Atlantic migratory group king mackerel if a large proportion of the ACL is caught before North Carolina fishermen can access the stock due to weather or other factors. Specifically, the Atlantic migratory group king mackerel fishing year starts on March 1 and weather during this period may hinder North Carolina fishermen. However, fishermen in more southern states, particularly Florida, may be able to fish during this time and could impact the amount of quota left for the time when North Carolina fishermen can fish. Under **Alternative 1**, the risk of restricted access to king mackerel for North Carolina fishermen due to less time on the water associated with poor weather in the early months of the fishing year would likely continue.

Benefits primarily for North Carolina fishermen would be expected under **Alternative 2** because a separate North Carolina allocation would allow fishermen in North Carolina to have opportunity to harvest fish at different times of the year. Additionally, competition for quota among fishermen in North Carolina and fishermen in the other Atlantic states would be reduced, which may minimize any current or future localized derby conditions. However, fishermen associated with one of the allocations (North Carolina quota or General Atlantic quota) that reach the quota quickly may not benefit from the separate North Carolina allocation, because his/her quota would be lower if it is not a total ACL. A North Carolina commercial quota may also result in perceptions of inequity or reduce ability for a local fishery to grow.

Table 4.4.1.2.2 shows the expected allocations of the commercial ACL for Atlantic migratory group king mackerel under each option in **Alternative 2**. In general, a larger allocation to North Carolina would be the most beneficial to fishermen in North Carolina because it would allow landings levels to be maintained or increased, although larger allocations to North Carolina would reduce allocation to South Carolina, Georgia, Florida, and the Mid-Atlantic states. Also, separating an allocation would place North Carolina and the General Atlantic group under a smaller quota than previously accessible. South Carolina, Georgia, and the Mid-Atlantic states would share a quota with Florida without access to the North Carolina quota. Because Florida generally makes up a majority of the landings, fishermen in some of the other states in the General Atlantic group (particularly Georgia and Florida) could have less access to the stock if Florida landings are a large proportion of the General Atlantic quota. If allocations are not substantially different from landings levels, there would be minimal impact on the fleet, although future harvest patterns could be affected if participation changes in the states fishing on the

General Atlantic quota. For Florida, Georgia, South Carolina, and the Mid-Atlantic, it would be expected that benefits to the fleet and associated fishing communities and businesses would be the highest under **Option a**; next highest under **Option c**; followed by **Option b**. **Option d** would be expected to be the least beneficial for these states because it provides the smallest allocation to the Florida, Georgia, South Carolina, and the Mid-Atlantic. For the North Carolina fleet, the opposite would be expected, in that a smaller allocation to the General quota would be more beneficial to fishermen harvesting in the EEZ of North Carolina. Therefore **Option d** would be expected to be the most beneficial for North Carolina fishermen. **Option b** would be less beneficial followed by **Option c**. **Option a** would be expected to be the least beneficial to North Carolina fishermen.

Establishment of a Northern Zone and Southern Zone along with separate quotas under **Alternative 3** would create allocations as shown in Table 4.4.1.2.3. **Options a-d** under **Alternative 3** would calculate the percentage of the ACL for the Northern Zone using combined landings from North Carolina, Virginia, Maryland, Delaware, Pennsylvania, New Jersey, and New York, and for the Southern Zone using combined landings of South Carolina, Georgia, the Florida East Coast, and Florida Keys on the Atlantic side. But, because Mid-Atlantic landings make up such a small proportion of total Atlantic migratory group king mackerel landings (less than 1% in all years), the expected allocations for each option under **Alternative 3** are similar to those under **Alternative 2**. The effects of options under **Alternative 3** on fishermen would be similar to those under **Alternative 2** except that fishermen in the Mid-Atlantic states would have access only to the Northern Zone quota. If allocations are not substantially different from landings levels, there would be minimal impact on the fleet, although future harvest patterns in the proposed Northern or Southern Zone could be affected if participation changes. For Florida, Georgia, and South Carolina, it would be expected that benefits to the fleet and associated fishing communities and businesses would be the highest under **Option a**; next highest under **Option c**; followed by **Preferred Option b**. The option that would be expected to be the least beneficial for these states is **Option d** because it provides the smallest allocation to the Florida, Georgia, and South Carolina. For benefits to the North Carolina and Mid-Atlantic fleet, the opposite would be expected, in that a smaller allocation to the Southern Zone quota would be more beneficial to fishermen harvesting in the proposed Northern Zone. Therefore **Option d** would be expected to be the most beneficial for North Carolina and Mid-Atlantic fishermen. **Preferred Option b** would be less beneficial followed by **Option c**. **Option a** would be expected to be the least beneficial to North Carolina and Mid-Atlantic fishermen.

The transfer provision that would be established under **Preferred Alternative 4** would provide broad social benefits by providing an avenue to adapt the available quota for each zone. In a fishing year, market or environmental conditions could result in one zone not meeting the zone's quota and **Preferred Alternative 4** could help to meet the total commercial ACL for Atlantic migratory group king mackerel for that year even if one zone does not meet its quota.

4.4.1.4 Direct and Indirect Effects on the Administrative Environment

The monitoring and documentation needed to track a separate North Carolina commercial quota for Atlantic migratory group king mackerel exist within the state of North Carolina. They have extensive experience working with similar programs for a number of northeast species and

monitoring is something North Carolina has considerable experience in administering under the Atlantic States Marine Fisheries Commission management plans. Their trip ticket program is comprehensive and they call dealers to get updated landings as a quota gets closer to being met. Trip tickets from North Carolina are provided to the Atlantic Coastal Cooperative Statistics Program, and NMFS uses these data to track regional quotas.

The NMFS Commercial Landings Monitoring (CLM) System came online in June 2012 and is now being used to track commercial landings of most federally managed fish species. This system is able to track individual dealer reports, track compliance with reporting requirements, project harvest closures using five different methods, and analyze how ACLs are exceeded. The CLM performs these tasks by taking into account: 1) spatial boundaries for each stock based on fishing area; 2) variable quota periods such as overlapping years or multiple quota periods in one year; and 3) overlapping species groups for single species as well as aggregated species. Data sources for the CLM system include the Standard Atlantic Fisheries Information System for Georgia and South Carolina, and the Bluefin Data file upload system for Florida and North Carolina. The CLM system is also able to track dealer reporting compliance with a direct link to the permits database in NMFS SERO. The CLM system would be used to track the entire commercial ACL under **Alternative 1** whereas a combination of the CLM and North Carolina trip ticket program would be used to track the commercial quotas under **Alternatives 2** and **3**.

With the new requirements for mackerel dealers to obtain a dealer permit, improved commercial monitoring mechanisms recently implemented, and improvements to dealer reporting, it is less likely that repeated commercial ACL overages would occur. The Southeast Fisheries Science Center (SEFSC) worked with SERO, the Gulf of Mexico Fishery Management Council (Gulf Council), and South Atlantic Fishery Management Council (South Atlantic Council) to develop a joint Dealer Reporting Amendment[1], which will be effective in August 2014 (GMFMC and SAFMC 2013). The Dealer Reporting Amendment would be expected to enhance reporting of commercial data by requiring dealers have a federal permit for mackerel. Further, the Dealer Reporting Amendment increases the required reporting frequency for dealers to once per week, and requires a single dealer permit for all finfish dealers in the Southeast Region.

Preferred Alternative 4 would increase the level of administrative burden as the commercial quotas for North Carolina and the remaining area would need to be changed as quota was transferred. Other administrative burdens that may result from separate commercial quotas would take the form of development and dissemination of outreach and education materials for fishery participants.

[1] Full title: Generic amendment to the fishery management plans of the Gulf of Mexico and Atlantic regions including environmental assessment, regulatory impact review, and regulatory flexibility act analysis: Modifications to Federally-Permitted Seafood Dealer Reporting Requirements.

4.4.2 Action 4.2 – Establish Regional Commercial Quotas for Atlantic Migratory Group Spanish Mackerel.

Alternative 1: No Action - retain one commercial quota for the Atlantic migratory group Spanish mackerel

Alternative 2: Establish a separate commercial quota for Atlantic migratory group Spanish mackerel for North Carolina based on Options a-d below. Monitoring and implementation would be based on Options e-g below.

Option a: The North Carolina quota would be the Atlantic migratory group ACL times the average of the proportion of landings in North Carolina from 2007/08 through 2011/12.

Option b: The North Carolina quota would be the Atlantic migratory group ACL times the average of the proportion of landings in North Carolina from 2002/03 through 2011/2012.

Option c: The North Carolina quota would be the Atlantic migratory group ACL times (50% of the proportion of landings in North Carolina 2002/03 through 2011/2012 and 50% of the proportion of landings in North Carolina 2007/08 through 2011/12).

Option d: The North Carolina quota would be the Atlantic migratory group ACL times the average of the proportion of landings in North Carolina from 1997/98 through 2011/12.

Option e: NMFS would monitor landings in both North Carolina and the rest of the states and close the EEZ of each area when the respective quota is met or expected to be met.

Option f: North Carolina would monitor landings in North Carolina and prohibit landings in North Carolina when the North Carolina quota is met or projected to be met. NMFS would monitor landings in the rest of the states and close the entire EEZ when the General Atlantic quota is reached.

Option g: North Carolina would monitor landings in North Carolina and inform NMFS when the North Carolina quota is met or expected to be met; NMFS would then close the EEZ off North Carolina. NMFS would monitor landings in the rest of the states and close the EEZ off those states when that quota is reached.

Preferred Alternative 3: Establish quotas for Northern and Southern Zones for Atlantic migratory group Spanish mackerel based on Options a-d below. The Northern Zone would include the EEZ off states from North Carolina north to New York. The Southern Zone would include the EEZ off South Carolina, Georgia, and the east coast of Florida. NMFS would monitor landings in both zones and close the EEZ of each zone when the respective quota is reached.

Option a: Each zone quota would be the Atlantic migratory group ACL times the average of the proportion of landings in that zone from 2007/08 through 2011/2012.

Preferred Option b: Each zone quota would be the Atlantic migratory group ACL times the average of the proportion of landings in that zone from 2002/2003 through 2011/2012.

Option c: Each zone quota would be the Atlantic migratory group ACL times the average (50% of the proportion of landings from that zone 2002/2003 through 2011/2012 and 50% of the proportion of landings from that zone 2007/2008 through 2011/2012).

Option d: Each zone quota would be the Atlantic migratory group ACL times the average of the proportion of landings in that zone from 1997/1998 through 2011/2012.

Preferred Alternative 4: Allow for transfer of quota between regions. North Carolina and Florida would be designated as the coordinating states for any transfer request, in consultation with other states.

4.4.2.1 Direct and Indirect Effects on the Physical/Biological Environments

There are no direct biological or ecological effects from establishing regional commercial quotas for Atlantic migratory group Spanish mackerel. The ACL and AMs provide biological protection and prevent overfishing. This action does not change the level of catch, only how it is distributed.

Alternative 1 would retain one commercial quota for Atlantic migratory group Spanish mackerel and this would not change the existing level of physical or biological effects.

Establishment of a separate commercial quota for North Carolina (**Alternative 2**) or separate commercial quotas for a Northern Zone and Southern Zone (**Alternative 3**), along with the options, would not change the existing level of biological/ecological effects. The commercial ACL and AMs provide biological protection and prevent overfishing of Atlantic migratory group Spanish mackerel. **Alternatives 2** and **3** would not change the level of catch of Atlantic migratory group Spanish mackerel, only how it is distributed.

Preferred Alternative 4 allows for transfer of quota between the North Carolina commercial quota and the commercial quota for the remaining areas. This would help prevent commercial quota overages and reduce the potential for any physical or biological/ecological effects.

4.4.2.2 Direct and Indirect Effects on the Economic Environment

The distribution of Atlantic migratory group Spanish mackerel landings from the 2002/2003 through 2011/2012 fishing years is shown in Table 4.4.2.2.1. Although difficult to discern because of confidential data, the average fishing year distribution of landings over this period does not show a clear trend (Table 2.4.3; Table 4.4.2.2.1). The last three seasons in Table 4.4.2.2.1 show that the commercial sector exceeded its allocation by as much as 24.7%.

Table 4.4.2.2.1. Atlantic migratory group Spanish mackerel commercial landings proportion for North Carolina compared to the rest of the South Atlantic and Mid-Atlantic states.

	North Carolina		FL, GA, SC and Mid-Atlantic[2]		
	% of Quota/ACL[1]	% of Total Landings	% of Quota/ACL	% of Total Landings	**Unused Quota/ACL**
2002 - 2003	18.1%	22.9%	60.8%	77.1%	21.1%
2003 - 2004	11.8%	12.7%	81.4%	87.3%	6.8%
2004 - 2005	11.8%	14.8%	68.0%	85.2%	20.2%
2005 - 2006	11.5%	12.4%	81.7%	87.6%	6.7%
2006 - 2007	13.0%	13.0%	87.2%	87.0%	-0.2%
2007 - 2008	13.5%	16.2%	69.6%	83.8%	16.9%
2008 - 2009	11.5%	13.8%	71.6%	86.2%	17.0%
2009 - 2010	26.6%	23.8%	84.9%	76.2%	-11.5%
2010 - 2011	25.2%	20.2%	99.5%	79.8%	-24.7%
2011 - 2012	24.1%	22.0%	85.5%	78.0%	-9.5%

[1]ACL for 2002/03 through 2005/06 = 3,870,000 lbs; ACL for 2006/07 to 2011/12 = 3,620,000 lbs.
[2] Landings from the Mid-Atlantic region equal < 3%.
Source: Southeast Fisheries Science Center.

The ACL for Spanish mackerel was changed in Amendment 18 to the Coastal Migratory Pelagics FMP (GMFMC and SAFMC 2011)[2] and the economic effects of lowering the ACL were analyzed as a part of that amendment. There are no data available from fishing years using the lower ACL because the actions of Amendment 18 were only recently put into effect. As a result, the analysis for this section makes assumptions. First is that the total Atlantic migratory Spanish mackerel ACL would continue to be harvested. As a corollary, the analysis assumes the entire proportion of the ACL assigned to North Carolina (**Alternative 2**) or the Northern Zone (North Carolina northwards; **Alternative 3**) and the entire proportion of the ACL of the remaining Atlantic coast would be harvested. The second assumption used in the analysis is that the proportion of the total catch between regions would remain the same, even for those fishing years where the ACL or quota was exceeded. It should be noted that had the commercial catch been constrained by the ACL or quota in place at the time for all fishing years, it is not known if the proportion of landings between regions would have been the same. It must be noted that the economic effects presented here are solely estimates based on the potential transfer of harvest from one region to the other based on historical landings proportions not constrained by the lower ACL of Amendment 18 and assumes that in the future the entire ACL would be harvested without overages.

Table 4.4.2.2.2 shows the expected economic effects of Alternative 2, Options a-d based on the current commercial ACL for Spanish mackerel of 3.13 mp. Comparisons were made using a long term average of annual landings by region from the 2002/2003 through the 2011/2012 fishing seasons. Using these fishing seasons, 17.2% of the ACL would be expected to be

[2] CMP Framework Amendment 1 is under development and proposes increasing the Atlantic migratory group Spanish mackerel ACL to 6.063 mp, with a commercial ACL of 3.33 mp.

harvested in North Carolina and is equivalent to the scenario in Option b. As stated in the assumptions of the analysis, the range of transfer of allocation between regions (North Carolina vs. the rest of the Atlantic coast) is from 0% to 2%. Options c and d would transfer 1% while Option a would transfer 2% as an increase to North Carolina over its 2002/2003 to 2011/2012 historic fishing season average.

Table 4.4.2.2.3 shows the expected economic effects of Alternative 3, Options a-d assessed the same assumptions utilized in the assessment of Alternative 2 in Table 4.4.2.2.2. However, this analysis uses an average of 19.9% of the ACL harvested in the Northern Zone as a comparison is equivalent to the scenario in Preferred Option b. The range of transfer of allocation between regions (North Carolina vs. the rest of the Atlantic coast) is from 0% to 2.9%. Option c would transfer 1.1%, Option a would transfer 2.1%, while Option d would transfer 2.9% as an increase to North Carolina over its 2002/2003 to 2011/2012 historic fishing season average.

As previously stated, recent fishing years, 2009/2010 through 2011/2012, have seen the ACL exceeded. An assumption of these analyses has been that with the lower ACL put in place through Amendment 18 (GMFMC and SAFMC 2011) the entire ACL would be landed in the future, as well. The long term average proportional landings used in Tables 4.4.2.2.2 and 4.4.2.2.3 included fishing seasons where the entire ACL or quota was not harvested. These analyses were repeated in Tables 4.4.2.2.4 and 4.4.2.2.5 and calculated average proportional landings only including the 2009/2010 through 2011/2012 fishing seasons where the entire ACL or quota was harvested.

Table 4.4.2.2.2 shows the expected economic effects of Alternative 2, Options a-d based on the current commercial ACL for Spanish mackerel of 3.13 mp. Comparisons were made using average of annual landings by region from the 2009/2010 through the 2011/2012 fishing seasons. Using these fishing seasons, 22.0% of the ACL would be expected to be harvested in North Carolina, if left unconstrained by regional allocations. As stated in the assumptions of the analysis, the range of transfer of allocation between regions (North Carolina vs. the rest of the Atlantic coast) is from 2.8% to 4.8%. Option a would transfer 2.8%, Options c and d would transfer 3.8%, while Option b would transfer 4.8% of the ACL as an decrease from Northern Zone over its 2009/2010 to 2011/2012 historic fishing season average.

Table 4.4.2.2.3 shows the expected economic effects of Alternative 3, Options a-d assessed the same assumptions utilized in the assessment of Alternative 2 in Table 4.4.2.2.2. However, this analysis uses the 2009/2010 through 2011/2012 average of 23.5% of the ACL harvested in the Northern Zone as the comparison. The range of transfer of allocation between regions (North Carolina vs. the rest of the Atlantic coast) is from 0.7% to 3.6%. Option d would transfer 0.7%, Option a would transfer 1.5%,Option c would transfer 2.5%, while Preferred Option b would transfer 3.6% of the ACL as an decrease from the Northern Zone over its 2009/2010 to 2011/2012 historic fishing season average.

Considering the assumption that it is expected the entire ACL would be landed, regardless of how it is allocated between regions in the future, it is more realistic to use the information in Tables 4.4.2.2.2 and 4.4.2.2.3 to make comparisons between the alternatives for determining economic effects. As stated previously, expected economic effects represent transfers between

regions, not changes in the overall economic effects. Potential benefits to one region represent potential losses to the other. Stating the relevant transfers in terms of effects to North Carolina or the Northern Zone, Alternative 2, Option a, Options c and d, Option c, and then Option b in increasing order result in expected transfers to North Carolina from the rest of the Atlantic coast. The estimated dollar value of these transfers ranges from approximately $79,000 to $135,000 per year. Alternative 3, Option d, Option a, Option c, and then Preferred Option b in increasing order result in expected transfers from the Northern Zone to the Southern Zone. The estimated dollar value of these transfers ranges from approximately $20,000 to $102,000 per year. In comparison to Alternative 1, all of the options of Alternatives 2 and 3 are not expected to result in any changes to the overall economic effects. However, compared to Alternative 1, each of the options in Alternatives 2 and 3 could result in increased economic benefit to fishermen in North Carolina should the entire ACL potentially be taken south of North Carolina prior to the fish migrating northwards.

The expected economic effects of Options e, f, and g of Alternative 2 would be identical to those discussed in Section 4.4.1.2 with respect to king mackerel. In summary, Option f would be expected to result in more economic benefits than Alternative 2, Option e, and Option g, and the expected economic effects of Option e and Option g would be equivalent.

Preferred Alternative 4, which would allow quota transfers between regions, would be expected to insure the probability the overall ACL would be harvested, regardless of how Spanish mackerel migrate in any given season. Therefore, Preferred Alternative 4 would be expected to result in increased economic benefits compared to Alternative 1.

Table 4.4.2.2.2 Expected economic effects of Action 4.2, Alternative 2 compared to average annual landings from 2002/2003 to 2011/2012 (2011$)

Alternative 2	North Carolina SM Allocation (Percent)	General Atlantic Group SM Allocation (Percent)	Difference Between Allocation and Avg. Landed 2002/2003-2011/2012 (Percent)	Difference Between Allocation and Avg. Landed 2002/2003-2011/2012 (Pounds)	Difference Between Allocation and Avg. Landed 2002/2003-2011/2012 (Value)
Option a	19.2%	80.8%	2.0%	62,600	$56,340
Option b	17.2%	82.8%	0.0%	0	$0
Option c	18.2%	81.8%	1.0%	31,300	$28,170
Option d	18.2%	81.8%	1.0%	31,300	$28,170

Table 4.4.2.2.3 Expected economic effects of Action 4.2, Alternative 3 compared to average annual landings from 2002/2003 to 2011/2012 (2011$)

Alternative 3	Northern Zone SM Allocation (Percent)	Southern Zone SM Allocation (Percent)	Difference Between Allocation and Avg. Landed 2002/2003-2011/2012 (Percent)	Difference Between Allocation and Avg. Landed 2002/2003-2011/2012 (Pounds)	Difference Between Allocation and Avg. Landed 2002/2003-2011/2012 (Value)
Option a	22.0%	78.0%	2.1%	65,730	$59,157
Preferred Option b	19.9%	80.1%	0.0%	0	$0
Option c	21.0%	79.0%	1.1%	34,430	$30,987
Option d	22.8%	77.2%	2.9%	90,770	$81,693

4.4.2.3 Direct and Indirect Effects on the Social Environment

Overall, the potential impacts of an allocation of the Atlantic migratory group Spanish mackerel commercial ACL to North Carolina or separate allocations to a Northern Zone and Southern Zone on fishermen, communities and businesses associated with the Spanish mackerel commercial industry would be similar to impacts discussed in Section 4.4.1.3. No changes in the commercial quota under **Alternative 1** would likely avoid the effects that commonly occur when an ACL is divided. But, retaining **Alternative 1** may also have negative impacts on North Carolina fishermen if weather or other factors prohibit North Carolina fishermen from fishing during the early months of the fishing season (March 1 - February 28) while fishermen in the other South Atlantic states (particularly Florida) have Spanish mackerel landings that count towards the commercial ACL.

Table 4.4.2.2.2 shows the expected allocations of the commercial ACL for Atlantic migratory group Spanish mackerel under each option in **Alternative 2**. In general, a larger allocation to North Carolina under **Alternative 2**, **Options a-d** would be the most beneficial to fishermen in North Carolina because it would allow landings levels to be maintained or increased, although larger allocations to North Carolina would reduce allocation to South Carolina, Georgia, Florida, and the Mid-Atlantic states. Also, separating an allocation would place North Carolina and the general Atlantic group under a smaller quota than previously accessible. South Carolina, Georgia, and the Mid-Atlantic states would share a quota with Florida without access to the North Carolina quota. Because Florida generally makes up a majority of the landings, fishermen in some of the other states in the general Atlantic group (particularly Georgia and South Carolina Florida) could have less access to the stock if Florida landings are a large proportion of the general Atlantic quota. If allocation of the ACL to a state or region is not substantially different from landings levels, there would be minimal impact on the fleet, although future harvest patterns could be affected if participation changes in the states fishing on the General Atlantic quota. For Florida, Georgia, South Carolina, and the Mid-Atlantic, it would be expected that benefits to the fleet and associated fishing communities and businesses would be the highest under **Option b**, and the next highest under **Options c** and **d**. The option that would be expected to be the least beneficial for these states is **Option a** because it provides the smallest allocation to the Florida, Georgia, South Carolina, and the Mid-Atlantic. For benefits to the North Carolina fleet, the opposite would be expected, in that a smaller allocation to the General quota would be more beneficial to fishermen harvesting in the EEZ of North Carolina. Therefore **Option a** would be expected to be the most beneficial for North Carolina fishermen. **Options c** and **d** would be less beneficial, and **Option b** would be expected to be the least beneficial to North Carolina fishermen. Overall, the difference among the potential allocations of **Options a-d** is only 1-2%, and the social effects of the actual allocations would be similar for all options.

Establishment of a Northern Zone and Southern Zone along with separate quotas under **Alternative 3** would create allocations as shown in Table 4.4.2.2.3. Unlike king mackerel, Mid-Atlantic Spanish mackerel landings (primarily from Virginia) make up a small but measurable proportion of total Atlantic migratory group Spanish mackerel landings. Under **Alternative 3**, **Options a-d**, a higher percentage of the ACL would be allocated to the Northern Zone than just to North Carolina under **Alternative 2**. Although this higher percentage would be accessible to North Carolina fishermen, the landings history of the Mid-Atlantic states that contributed to the

higher allocation in **Options a-d** under **Alternative 3** would also likely contribute to the Northern Zone quota in addition to slightly lowering the expected allocation to the Southern Zone quota. As discussed, fishermen fishing in one zone would not have access to as many pounds as they have access to currently under the single quota for the Atlantic group.

If allocations are not substantially different from landings levels, there would be minimal impact on the fleet, although future harvest patterns could be affected if participation changes. For Florida, Georgia, and South Carolina, it would be expected that benefits to the fleet and associated fishing communities and businesses would be the highest under **Preferred Option b**; next highest under **Option c**; followed by **Option a**. The option that would be expected to be the least beneficial for these states is **Option d** because it provides the smallest allocation to the Florida, Georgia, and South Carolina. For benefits to the North Carolina and Mid-Atlantic fleet, the opposite would be expected, in that a smaller allocation to the proposed Southern Zone would be more beneficial to fishermen harvesting in the Northern Zone. Therefore **Option d** would be expected to be the most beneficial for North Carolina and Mid-Atlantic fishermen. **Option a** would be less beneficial followed by **Option c**. **Preferred Option b** would be expected to be the least beneficial to North Carolina and Mid-Atlantic fishermen.

The provision to allow transfer of quota under **Preferred Alternative 4** would provide broad social benefits by providing an avenue to adapt the available quota for each zone. In a fishing year, market or environmental conditions could result in one zone not meeting the zone's quota and **Preferred Alternative 4** could help to reach the total commercial ACL for Atlantic migratory group Spanish mackerel even if one zone does not meet its quota.

4.4.2.4 Direct and Indirect Effects on the Administrative Environment

The monitoring and documentation needed to track a separate North Carolina commercial quota for Atlantic migratory group Spanish mackerel exist within the state of North Carolina. They have extensive experience working with similar programs for a number of northeast species and monitoring is something North Carolina has considerable experience in administering under the Atlantic States Marine Fisheries Commission management plans. Their trip ticket program is comprehensive and they call dealers to get updated landings as a quota gets closer to being met. Trip tickets from North Carolina are provided to the Atlantic Coastal Cooperative Statistics Program, and NMFS uses these data to track regional quotas.

With the new requirements for mackerel dealers to obtain a dealer permit, improved commercial monitoring mechanisms recently implemented, and improvements to dealer reporting, it is less likely that repeated commercial ACL overages would occur. The Joint Dealer Reporting Amendment will be effective in August 2014 (GMFMC and SAFMC 2013) and is expected to enhance reporting of commercial data by requiring dealers have a federal for mackerel. Further, the Dealer Reporting Amendment increases required reporting frequency for dealers to once per week, and requires a single dealer permit for all finfish dealers in the Southeast Region. The NMFS CLM System is now being used to track commercial landings of most federally managed fish species (see section 4.4.1.4). The CLM system would be used to track the entire commercial ACL under **Alternative 1** whereas a combination of the CLM and North Carolina trip ticket program would be used to track the commercial quotas under **Alternatives 2** and **3**.

Preferred Alternative 4 would increase the level of administrative burden as the commercial quotas for North Carolina and the remaining area would need to be changed as quota was transferred. Other administrative burdens that may result from separate commercial quotas would take the form of development and dissemination of outreach and education materials for fishery participants.

4.5 Action 5: Modify the Framework Procedure.

Alternative 1: No Action – Do not modify the framework procedure adopted through Amendment 18.

Preferred Alternative 2: Modify the framework procedure to include changes to acceptable biological catches (ABCs), ABC/annual catch limits (ACL) control rules, and accountability measures (AMs) under the standard documentation process for open framework actions. Accountability measures that could be changed would include:

In-season AMs

- Closures and closure procedures
- Trip limit reductions or increases
- Designation of an individual fishing quota (IFQ) program as the AM for species in the IFQ program
- Implementation of gear restrictions

Post-season AMs

- Adjustment of season length
- Implementation of a closed season
- Adjustment or implementation of bag, trip, or possession limit
- Reduction of the ACL to account for the previous year overage
- Revoking a scheduled increase in the ACL if the ACL was exceeded in the previous year
- Implementation of gear restrictions
- Reporting and monitoring requirements

Alternative 3: Modify the framework procedure to include changes to accountability measures (AMs) under the standard documentation process for open framework actions. Accountability measures that could be changed would include:

In-season AMs

- Closure procedures
- Trip limit reductions or increases

Post-season AMs

- Adjustment of season length
- Adjustment of bag, trip, or possession limit

Preferred Alternative 4: Modify the framework procedure to include designation of responsibility to each Council for setting regulations for the migratory groups of each species.

This pertains to:
Responsibilities of Each Council:

1. Recommendations with respect to the Atlantic migratory groups of king mackerel, Spanish mackerel, and cobia will be the responsibility of the South Atlantic Council, and those for the Gulf migratory groups of king mackerel, Spanish mackerel, and cobia will be the responsibility of the Gulf Council, with the following exceptions:

   The South Atlantic Council will have responsibility to set vessel trip limits, closed seasons or areas, or gear restrictions for 1) the Eastern Zone - East Coast Subzone for Gulf migratory group king mackerel and 2) the east coast of Florida including the Atlantic side of the Florida Keys for Gulf migratory group cobia.
2. For stocks where a stock assessment indicates a different boundary between the Gulf and Atlantic migratory groups than the management boundary, a portion of the ACL for one migratory group may be apportioned to the appropriate zone, but management measures for that zone will be the responsibility of the Council within whose management area that zone is located.
3. Both councils must concur on recommendations that affect both migratory groups.

Preferred Alternative 5: Make editorial changes to the framework procedure to reflect changes to the names of the Council advisory committees and panels.

4.5.1 Direct and Indirect Effects on the Physical/Biological Environment

The impacts on the physical environment from CMP fishing are detailed in Section 4.1.1. No direct physical or biological effects would be expected from modifications of the framework procedure. Changes in harvest levels would change effort levels, either increasing or decreasing the impact on the physical and biological environments. If modifications increase the ease with which regulations can be implemented as needed, long-term benefits would increase.

Alternatives 2-5 offer greater management flexibility and, therefore, are expected to offer greater long-term benefits than **Alternative 1**. **Preferred Alternative 2** has a larger range of actions that can be taken through a framework procedure and therefore offers more flexibility than **Alternatives 1** and **3**. A combination of **Preferred Alternatives 2, 4,** and **5** offers the greatest efficiency and effectiveness of management change and the largest expected long-term benefit to the physical and biological environments.

4.5.2 Direct and Indirect Effects on the Economic Environment

Modifying the framework procedure is an administrative action. Other than **Alternative 1**, the proposed alternatives would expand the range of management measures that the Councils can implement without a full plan amendment. Because it is an administrative action, changing the framework procedure would not be expected to directly affect the harvest and other customary uses of the resource. Therefore, the proposed changes to the framework procedure are not expected to result in any direct impacts on the economic environment. However, the proposed changes to the framework procedure could result in a speedier implementation of management measures that may be beneficial to the stocks, with associated economic benefits, or otherwise result in increased economic benefits to fishermen and associated businesses. These would be

indirect positive economic effects of the proposed changes. **Preferred Alternative 2** would implement broader changes to the framework procedure than **Alternative 3** and, as a result, is expected to result in greater indirect economic benefits than **Alternative 3**.

Neither **Preferred Alternative 4** nor **Preferred Alternative 5** address the same aspects of modification of the framework procedure addressed by **Preferred Alternative 2** or **Alternative 3** and should not be compared to these two proposed alternatives. Instead of improving the management process by expanding the range of management measures that can be changed through framework procedure, **Preferred Alternative 4** would be expected to improve management by shortening the management process. The explicit designation of responsibility to the Gulf and South Atlantic Councils proposed in **Preferred Alternative 4** is expected to streamline the implementation of required management measures, by limiting the management process to deliberation by a single Council. This would be expected to allow necessary regulatory changes, with associated economic benefits, to be implemented faster.

Preferred Alternative 5 would simply make editorial changes to the framework procedure to accommodate name changes of the Council advisory committees and panels. The names of some advisory groups have changed and certain management processes invoke participation of these groups by name. The proposed change would allow the Councils to continue to receive the information and advice from these groups, regardless of their current name or future name change, necessary to support better informed management decisions. Absent the proposed change, these and future groups may have reduced opportunity for participation in the management process. This may adversely affect the quality of resultant management decisions, with associated reduction in economic benefits. As a result, **Preferred Alternative 5** would be expected to result in increased economic benefits compared to **Alternative 1.**

A quantitative evaluation of the alternatives considered under this action cannot be provided with available information. A quantitative evaluation would require information on the specific management measures to be implemented, the expected changes to the stock(s) and/or participants in the fishery in question, and the anticipated time savings that would result from the use of the framework procedure. While unknown, the relative speed at which beneficial regulatory changes can be implemented under **Alternatives 2, 3,** and **4** would determine the magnitude of the anticipated indirect economic benefits.

4.5.3 Direct and Indirect Effects on the Social Environment

Modification of the framework procedure of the CMP fisheries would not be expected to result in any direct impacts. Rather, indirect effects would be expected and would result in broad, long-term social benefits, and minimal negative social effects. Although a framework procedure is currently in place (**Alternative 1**), the proposed modifications to improve timeliness and incorporate regulatory updates (**Preferred Alternative 2**, **Alternative 3, Preferred Alternative 4,** and **Preferred Alternative 5**) would be expected to contribute to improved management of the CMP stocks and would allow the Councils to respond to management needs. The relative speed at which beneficial regulatory changes can be implemented under **Preferred Alternative 2**, **Alternative 3,** and **Preferred Alternative 4** would determine the magnitude of the anticipated

indirect social benefits. Public participation and the review process would continue as part of the framework procedure under all alternatives.

Both **Preferred Alternative 2** and **Alternative 3** expand the range of management measures, including the AMs in the multiple zones of the CMP fishery, which the South Atlantic and Gulf Councils can implement without a full plan amendment. **Alternative 3** would allow for fewer changes to be made compared to **Preferred Alternative 2**, and would thus be expected to result in fewer indirect benefits by providing less flexibility to modify in-season and post-season AMs.

As discussed in the previous section, neither **Preferred Alternative 4** nor **Preferred Alternative 5** address the same aspects of modification of the framework procedure addressed by **Preferred Alternative 2** or **Alternative 3** and should not be compared to these two proposed alternatives. Instead of improving the management process by expanding the range of management measures that can be changed through framework procedure, **Preferred Alternative 4** would be expected to improve management by shortening the management process. The explicit designation of responsibility to the Gulf and South Atlantic Councils proposed in **Preferred Alternative 4** is expected to streamline the implementation of required management measures, by limiting the management process to deliberation by a single Council. This would be expected to allow necessary regulatory changes, with associated social benefits, to be implemented faster.

Preferred Alternative 5 would simply make editorial changes to the framework procedure to accommodate name changes of the Council advisory committees and panels. The names of some advisory groups have changed and certain management processes invoke participation of these groups by name. The proposed change would allow the Councils to continue to receive the information and advice from these groups, regardless of their current name or future name change, necessary to support better informed management decisions. Absent the proposed change, these and future groups may have reduced opportunity for participation in the management process. This may adversely affect the quality of resultant management decisions, with associated reduction in social benefits. As a result, **Preferred Alternative 5** would be expected to result in increased social benefits compared to **Alternative 1.**

4.5.4 Direct and Indirect Effects on the Administrative Environment

Alternative 1 would be the most administratively burdensome of the alternatives being considered, because any modifications to AMs would need to be implemented through a plan amendment, which is a more laborious and time consuming process than a framework action. Further, action by both Councils would be required for any framework action. **Preferred Alternative 2** and **Alternative 3** would give NMFS and the Councils flexibility by allowing for an adjustment of AMs through a framework amendment. Framework amendments generally require less time and staff effort than plan amendments and would lessen the administrative burden on the agency. **Preferred Alternative 2** would provide the most flexibility, resulting in the least administrative burden on the agency.

Preferred Alternative 4 would decrease the administrative burden because each Council could carry out framework actions applying to their migratory groups without involvement of the other

Council. This would save time because each Council meets on different schedules throughout the year.

Preferred Alternative 5 would reduce the administrative burden because the language is generic enough to incorporate future changes in the name of a committee or panel. Thus, development of a plan amendment and the associated time and work associated with it would be avoided.

4.6 Action 6: Modify the Gulf and Atlantic Migratory Group Cobia Annual Catch Limits (ACLs) and Annual Catch Targets (ACTs).

Alternative 1: No Action. The entire Gulf migratory group cobia ACL applies to the Gulf Council jurisdictional area and the entire Atlantic migratory group cobia ACL applies to the South Atlantic jurisdictional area. The ACLs and ACTs that were established by Amendment 18 are as follows:

Gulf Migratory Group	Atlantic Migratory Group
ACL = 1,460,000 lbs	ACL = OY = 1,571,399 lb Commercial ACL (8% ACL) = 125,712 lb Recreational ACL (92% ACL) = 1,445,687 lb
Stock ACT = 1,310,000 lbs	Recreational ACT = 1,184,688 lb

Alternative 2: The ACL = ABC as determined by the SSCs for each migratory group. The entire Gulf migratory group cobia ACL applies to the Gulf Council jurisdictional area and the entire Atlantic migratory group cobia ACL applies to the South Atlantic jurisdictional area. The ACLs and ACTs would be as follows:

Gulf Migratory Group	Atlantic Migratory Group
(See Table 2.6.1 for values)	
ACL = ABC	ACL = ABC = OY Commercial ACL = 8% ACL Recreational ACL = 92% ACL
Stock ACT = 90%ACL	Recreational ACT = ACL [(1-PSE) or 0.5, whichever is greater]

Preferred Alternative 3: The ACL for each jurisdictional area would be determined as follows:

- The Gulf migratory group cobia ABC (as determined by the SSC) would be divided into a Gulf Zone ACL and a Florida East Coast Zone ACL (FL/GA border to Council jurisdictional boundary) based on the options below.

  Option a: Use 2003-2012 (10 years) landings to establish the percentage split for the Gulf ABC.

  Option b: Use 2008-2012 (5 years) landings to establish the percentage split for the Gulf ABC.

Option c: Use "Boyles Law": 50% of landings from 2003-2012 + 50% of landings from 2008-2012 to establish the percentage split for the Gulf ABC.
Preferred Option d: Use 1998-2012 (15 years) landings to establish the percentage split for the Gulf ABC.
Option e: Based on yellowtail snapper: 50% of average landings from 1993-2008 + 50% of average landings from 2006-2008 to establish the percentage split for the Gulf ABC.
Option f: Based on mutton snapper: 50% of average landings from 1990-2008 + 50% of average landings from 2006-2008 to establish the percentage split for the Gulf ABC.

- The South Atlantic ACL would equal to the ABC for the Atlantic migratory group cobia (as determined by the SSC).

- Management measures set by the South Atlantic Council for the Atlantic migratory group would also apply to the Gulf migratory group Florida East Coast Zone.

The ACLs and ACTs would be as follows:

Gulf Migratory Group		**Atlantic Migratory Group**
(see Table 2.6.3 for values for each option)		
Gulf Zone	**FL East Coast Zone**	
ACL = x% ABC	ACL = x% ABC Commercial ACL = 8% ACL Recreational ACL = 92% ACL	ACL = ABC = OY Commercial ACL = 8% ACL Recreational ACL = 92% ACL
Stock ACT = 90%ACL	Recreational ACT = ACL [(1-PSE) or 0.5, whichever is greater]	Recreational ACT = ACL [(1-PSE) or 0.5, whichever is greater]

4.6.1 Direct and Indirect Effects on the Physical/Biological Environment

Changing the ACL or ACT could affect the physical environment if effort changes from current levels. If harvest is restricted under an ACL or ACT, fishing effort could be reduced through AMs such as a shortened season. Cobia are typically caught at the ocean surface and hook-and-line gear typically do not come in contact with bottom habitat. Hook-and-line gear still has the potential to snag and entangle bottom structures and cause tear-offs or abrasions (Barnette 2001). If gear is lost or improperly disposed of, it can entangle marine life. Entangled gear often becomes fouled with algal growth. If fouled gear becomes entangled on corals, the algae may eventually overgrow and kill the coral.

Amendment 18 (GMFMC and SAFMC 2011) set the cobia ACLs equal to the ABCs specified for cobia in the Gulf and South Atlantic. Furthermore, the Atlantic migratory group OY was set equal to the ACL, and the recreational ACT was defined as the ACL times [(1-PSE) or 0.5, whichever is greater]. For the Gulf migratory group, the stock ACT was defined as 90% of the ACL. Thus, the numerical values associated with the ACLs and ACTs are dependent on the ABC. Therefore, a change in the ABC should result in a change in the ACLs and ACTs.

Modifying the ACL or ACT from the current values described in Amendment 18 (**Alternative 1**) would potentially have an impact on the biological environment if harvest changes from current levels, and AMs are triggered if the ACL or ACT is met or exceeded. An ACL equal to the ABC (**Alternative 2** and **Preferred Alternative 3**) would allow a higher level of landings than an ACL lower than the ABC. In fact, Gulf landings have only exceeded the current ACL once in the last 15 years. However, progressively lower ACLs would restrict landings more and increase the likelihood of exceeding the ACL in more years. Compared to **Alternative 1**, **Alternative 3 Option a** and **Preferred Option d** would result in an increase in the Gulf ACL while **Option b** would result in a decrease. The combined ACLs within the South Atlantic jurisdictional area (Atlantic ACL plus the Florida East Coast ACL) would increase under **Options a, b**, and **Preferred Option d**. **Options c**, **e**, and **f** would use 50% of landings from recent years and 50% of landings from a longer time period. **Options c, e**, and **f** all result in an increase in the Gulf ACL, while the combined South Atlantic and Florida East Coast ACLs would decrease only under **Options e** and **f**. Therefore, **Options a, c,** and **Preferred Option d** may have fewer biological benefits than the status quo if landings up to the ACL are achieved in both the Gulf and the Florida East Coast. **Option b** may have a similar effect on the Florida east coast, but not the Gulf. Conversely, **Options e** and **f** may have fewer biological benefits for cobia in the Gulf than the status quo, but not the Florida east coast. While options that result in lower catches would have a greater biological benefit, harvest levels associated with the ABC and ACLs are considered to be sustainable, and AMs are in place to ensure ACLs are not exceeded and overfishing does not occur. Therefore, options that increase the ACL for cobia in any of the jurisdictional areas are not likely to have significant negative biological effects on cobia stocks.

The ACLs and ACTs by zone would allow the cobia portion of the CMP fishery to achieve OY while still constraining the stock within the ACL. If there are separate ACLs or ACTs for the Atlantic migratory group, the Gulf Zone, and the Florida East Coast Zone (**Preferred Alternative 3** and associated options), AMs could be triggered as each zone or group reaches its respective quota, provided adequate monitoring would be in place. This level of control would be expected to result in fewer negative impacts on the biological environment because catch could be more closely monitored. Further, with separate ACLs and/or ACTs, different types of AMs could be triggered that are more suited to the particular jurisdiction, and therefore, be more effective in constraining harvest within the ACL. Alternatively, because catches of cobia are approximately 90% recreational, monitoring precision is currently not as high as with other species with higher levels of observed or otherwise independently validated landings (commercial, headboat observer programs). Consequently, any potential positive biological impacts of jurisdiction-specific ACLs or ACTs may not be realized.

4.6.2 Direct and Indirect Effects on the Economic Environment

South Atlantic

Alternative 1 would not change the ACLs for the Gulf and South Atlantic Council cobia fisheries. However, **Alternative 1** would not use the best available data resulting from the SEDAR 28 stock assessment for cobia (SEDAR 2013a, 2013c). Not using the best available data could result in not fishing to OY, either in terms of causing potential harm to the stock by allowing overharvest, or by not allowing fishermen to harvest as much of the resource as they would otherwise be able to safely, depriving them the opportunity for greater economic gain.

The stock assessment for cobia (SEDAR 28 2013c) provided ABCs for 2014, 2015, and 2016 and indicated that it is necessary for the ABC to be reduced over time.

The pounds of cobia landed historically by sector and migratory group for the South Atlantic region and northwards are shown in Table 4.6.2.1. Table 4.6.2.2 shows the pounds that would be allocated to each sector under **Alternative 2** and **Preferred Alternative 3** based on data shown in Table 2.6.1 and Table 2.6.2. Additionally, Table 4.6.2.2 uses the sector allocation percentages shown in **Alternative 1.**

Table 4.6.2.1. Landings of cobia by sector and migratory group, 2007-2011, for the US east coast (pounds).

	North of Florida		**Florida East Coast**		**Total**	
	Commercial	Recreational	Commercial	Recreational	Commercial	Recreational
2007	31,185	765,969	60,805	588,244	91,990	1,354,213
2008	32,312	539,386	57,003	423,746	89,315	963,132
2009	41,727	708,895	65,953	386,952	107,680	1,095,847
2010	55,683	872,978	101,564	753,815	157,247	1,626,793
2011	33,717	327,871	156,069	761,440	189,786	1,089,311

Source: SEDAR 28 2013c.

Table 4.6.2.2. Cobia ACLs by sector and migratory group under **Alternative 2** and **Preferred Alternative 3** for fishing years 2014-2016 (in pounds).

	2014		**2015**		**2016**	
	Comm.	Rec.	Comm.	Rec.	Comm.	Rec.
Alternatives 2 and **3**-Atlantic Group (comparable to North of Florida in Table 4.6.2.1)	60,000	670,000	60,000	630,000	50,000	620,000
Alternative 3 - FL E. Coast Zone						
Option a	70,000	820,000	70,000	840,000	80,000	870,000
Option b	90,000	990,000	90,000	1,020,000	90,000	1,050,000
Option c	80,000	910,000	80,000	930,000	80,000	960,000
Pref. Option d	70,000	810,000	70,000	830,000	70,000	860,000
Option e	60,000	720,000	60,000	740,000	70,000	760,000
Option f	60,000	730,000	70,000	750,000	70,000	780,000

Note: The Atlantic Zone ACLs would be the same for both alternatives, but the area over which the ACL would apply would be larger for **Alternative 2** (FL Keys to NY) than **Preferred Alternative 3** (GA-NY).

Alternative 2 would have all of the Gulf migratory group cobia ACL be allocated to the Gulf Council area of jurisdiction (W FL – TX) and the all of the Atlantic migratory group cobia ACL allocated to the South Atlantic Council area of jurisdiction (E FL – NY). However, although the

tabulation of Gulf migratory group ACL would include historic harvests from the east coast of Florida, subsequent harvest of cobia on the east coast of Florida under **Alternative 2** would be subject to South Atlantic Council management and count against the Atlantic migratory group ACL because this area falls under the jurisdiction of the South Atlantic Council. As a result, under **Alternative 2**, cobia harvested on the east coast of Florida would be counted against the Atlantic migratory group ACL even though these fish would not be part of the Atlantic migratory group ABC. Conversely, the Gulf migratory group ABC would be credited with fish historically harvested on the east coast of Florida, but any landings from that area would not count against the Gulf ACL. **Alternative 2** Atlantic migratory ACLs for the commercial sector for cobia are approximately 60,000 lbs for both 2014 and 2015, but drop to approximately 50,000 lbs for the 2016 fishing year (Table 4.6.2.2). From 2007 through 2011, the commercial sector in this zone had its highest landings in 2011 of 189,786 lbs, averaging 127,204 lbs per year. Assuming the 2007 to 2011 average would be caught each year in 2014 through 2016 if there was no ACL to constrain the harvest, then **Alternative 2** would be expected to result in a reduction in cobia commercial harvest of approximately 67,200 lbs in 2014 and 2015, and 77,200 lbs in 2016.

The ex-vessel value for cobia landed off North Carolina in 2011 was $1.75/lb (S. McInerny, North Carolina Division of Marine Fisheries [NCDMF] Trip Ticket Program, pers. comm.). The ex-vessel value for cobia landed on the east coast of Florida in 2011 was $3.08 per lb (S. Brown, FWC State Trip Ticket Program, pers. comm.). Based on these ex-vessel prices, the estimated reduction in ex-vessel value of commercially harvested cobia to the Atlantic Zone in 2014 and 2015 to range from approximately $118,000 to $207,000, and range from approximately $135,000 to $238,000 in 2016.

Preferred Alternative 3 and associated options, including **Preferred Option d**, would differ from **Alternative 2** by dividing the Gulf migratory group ABC into a Gulf Zone ACL and a Florida East Coast Zone ACL. The **Alternative 1** ACLs are based on counting the east coast of Florida landings with the states north of Florida. In order to understand the economic effects of this action on the entire South Atlantic region and northwards, Table 4.6.2.3 indicates future Atlantic migratory group ACLs combined with the Florida East Coast Zone ACL options from **Preferred Alternative 3**.

Table 4.6.2.3. Florida East Coast Zone plus Atlantic Zone commercial and recreational ACLs for cobia for 2014-2016 (pounds whole weight). This would be the total amount managed by the South Atlantic Council for **Preferred Alternative 3**.

	2014		**2015**		**2016**	
	Com.	Rec.	Com.	Rec.	Com.	Rec.
Opt a	130,000	1,490,000	130,000	1,470,000	130,000	1,490,000
Opt b	150,000	1,660,000	150,000	1,650,000	140,000	1,670,000
Opt c	140,000	1,580,000	140,000	1,560,000	130,000	1,580,000
Opt d	130,000	1,480,000	130,000	1,460,000	120,000	1,480,000
Opt e	120,000	1,390,000	120,000	1,370,000	120,000	1,380,000
Opt f	120,000	1,400,000	130,000	1,380,000	120,000	1,400,000

As discussed in Section 3.4.2, estimates of the consumer surplus (CS) for cobia are not available. As a result, estimates of the reduction in CS that would be expected to occur under **Alternative 2** relative to **Alternative 1** cannot be calculated; however, the potential reduction in private, recreational trips for 2014 through 2016 are estimated in Table 4.6.2.4. Average total recreational landings for the South Atlantic jurisdiction from 2007 through 2011 (Table 4.6.2.1) were lower than the combined Atlantic Zone and Florida East Coast Zone ACLs under all **Preferred Alternative 3** options (Table 4.6.2.3) for all years except 2010. The net operating revenue (NOR) for a recreational charterboat angler trip for North Carolina anglers is estimated to be $128 (2009 dollars) and $135 for east coast of Florida anglers (Section 3.4.2). Table 4.6.2.4 uses the Florida NOR value to calculate NOR losses. The estimates in Table 4.6.2.4 only include the charterboat component for-hire sector because NOR estimates are available only for that sector. The estimates of the expected reduction in effort and associated NOR under Alternative 2 are provided in Table 4.6.2.4.

Table 4.6.2.4. Expected reduction in recreational pounds and value (in 2011 $) of cobia as a result of **Alternative 2** from 2014 through 2016 for the Atlantic Zone (FL-NY) compared to 2007 through 2011.

	Pounds	Difference	Change in Private Trips	Change in Charterboat Trips	Change in Net Operating Revenue
2007-2011 Avg. Landings	1,225,859				
2014	670,000	-555,859	-90,698	-1,946	-$262,643
2015	630,000	-595,859	-97,224	-2,086	-$281,543
2016	620,000	-605,859	-98,856	-2,121	-$286,268

The Atlantic Zone ACLs for the commercial sector for cobia for **Preferred Alternative 3** are the same as the commercial sector Atlantic Zone ACLs for **Alternative 2**; 60,000 lbs for both 2014 and 2015, and 50,000 lbs for the 2016 fishing year (Table 4.6.2.2). From 2007 through 2011, the commercial sector in this zone had its highest landings in 2010 of 56,000 lbs, and averaged 38,925 lbs per year over this period. Assuming the landings trend continues, the proposed commercial ACLs would not be binding in most years. Based on the average annual cobia landings by the commercial sector from 2007-2011and using the ex-vessel value for cobia landed off North Carolina discussed above ($1.75 per lb), the proposed commercial ACLs for the Atlantic Zone under **Preferred Alternative 3** would allow the commercial sector to receive an increase in ex-vessel value from cobia of $36,881 in 2014 and 2015, and $19,381 in 2016. However, had any of the 2014 through 2016 ACLs been in place during 2007 through 2011, the commercial sector quota would have been reached prior to the end of the fishing year in three out of the five years.

For the recreational sector, the average recreational landings for the Atlantic Zone from 2007 through 2011 were 643,020 lbs. On average, it is estimated that 22,000 recreational trips are taken annually (Tables 3.4.2.10, 3.4.2.11, and 3.4.2.12) on which cobia is caught. Of these trips, 1,000 are charterboat trips and the remaining 21,000 trips are private angler trips. The 2014

through 2016 ACLs for the Atlantic Zone in **Preferred Alternative 3** (620,000 lbs to 670,000 lbs) are similar to the average landings from 2007 through 2011 with an average of 640,000 lbs. The reduction represents 23 for-hire and 251 private recreational trips that would not be able to take place. There are not sufficient data to determine the consumer surplus for cobia to calculate loss to anglers. An estimate of NOR for the Atlantic Zone ACL is only available for North Carolina and is $128 per angler per trip (see Section 3.4.2). Assuming the NOR value for the other states is similar, applying it results in an estimate of the number of for-hire trips that would be foregone. The reduction in 23 for-hire trips represents a NOR loss of $2,944 on average per year.

Preferred Alternative 3 has six options that specify how the overall Gulf migratory group ACL would be divided between the Gulf Zone and the Florida East Coast Zone. **Options a** and **b** and **Preferred Option d** use percent landings by area for different periods of time to determine how the ACL would be divided. **Options c, e,** and **f** are based on a variation of using both longer term and shorter term time series to determine the allocation to the zones. Using the two time series to help determine the allocation gives more weight to the recent year harvests. **Option c** uses the most recent years' data for both the long- and short-term time series.

Table 4.6.2.5 shows the direct negative economic effect in terms of ex-vessel value of cobia compared to the average annual 2007 through 2011 landings (most recent five years of landings) that would be expected to occur under **Preferred Alternative 3**. The trend in landings from the east coast of Florida has been increasing (Table 4.6.2.1). In 2011, 156,069 lbs were landed commercially. The ex-vessel price for cobia landed on the east coast of Florida in 2011 was $3.08 per lb (S. Brown, FWC State Trip Ticket Program, pers. comm.) and was used to calculate expected annual direct negative economic effects to the commercial sector. The commercial ACL allocated to the Florida East Coast Zone under five of the six **Preferred Alternative 3** options are likely to result in the ACL being reached prior to the end of the fishing year, resulting in direct negative economic effects for the sector. The lower the ACL, the greater the potential direct negative impact. In order of greatest potential direct negative economic effect to the least are **Option e, Option f, Preferred Option d, Option a, Option c,** and **Option b**.

Table 4.6.2.5. For the options of **Preferred Alternative 3**, expected reduction in commercial pounds and value (in 2011 $) of cobia from 2014 through 2016 for the east coast of Florida zone, compared to 2007 through 2011 average commercial landings and ex-vessel value.

	Pounds	**Difference**	**Value**
Landings (2007-2011)	88,279		$526,454
Option a	73,333	-14,946	-$46,033
Option b	90,000	1,721	$5,301
Option c	80,000	-8,279	-$25,499
Preferred Option d	70,000	-18,279	-$56,299
Option e	63,333	-24,946	-$76,833
Option f	66,667	-21,612	-$66,566

All options of **Preferred Alternative 3** except **Option b** are expected to result in reductions in ex-vessel values due to reduced ACLs. The annual expected direct negative economic effect to the east coast of Florida for 2014 through 2016 ranges from approximately $25,500 to $77,000. **Preferred Option d** would result in an estimated average annual reduction in ex-vessel landings value of $56,299.

Estimates of the expected economic effects of **Preferred Alternative 3** on the recreational sector in the Florida East Coast Zone are provided in Table 4.6.2.6. The average annual recreational landings in the Florida East Coast Zone from 2007 through 2011, approximately 583,000 lbs, was less than the ACLs under all of the options of **Preferred Alternative 3**. The range of average annual increase in the ACL is from approximately 157,000 lbs (**Option e**) to approximately 437,000 lbs **(Option b**). The additional recreational trips that could be taken as a result of the increased ACL ranges from approximately 26,000 (**Option e**) to approximately 71,000 trips (**Option b**). **Preferred Option d** is expected to result in an increase of harvest of approximately 833,000 lbs and 41,000 additional recreational trips.

As discussed in Section 3.4.2, estimates of the CS for cobia are not available for private angler activity. The estimated NOR values for a charterboat angler trip on the east coast of Florida for **Preferred Alternative 3** are provided in Table 4.6.2.6. These estimates utilize an estimate of $135 per charterboat angler trip for the east coast of Florida (Section 3.4.2). The expected range of annual increase in NOR for 2014 through 2016 compared the average number of trips from 2007-2011 is from approximately $74,000 for **Option e** to $207,000 for **Option b**. **Preferred Option d** would be expected to result in an annual increase in NOR of approximately $118,000.

Table 4.6.2.6. Preferred Alternative 3 expected changes in recreational trips for cobia from 2014 through 2016 for the Florida East Coast Zone compared to 2007 through 2011 average recreational landings.

		Trips	Difference	Change in Private Trips	Change in For-Hire Trips	Change in Net Operating Revenue
2007-2011 Avg.		582,839				
2014-2016	Option a	843,333	260,494	42,504	912	$123,084
	Option b	1,020,000	437,161	71,330	1,530	$206,559
	Option c	933,333	350,494	57,189	1,227	$165,609
	Pref. Opt. d	833,333	250,494	40,872	877	$118,359
	Option e	740,000	157,161	25,643	550	$74,259
	Option f	753,333	170,494	27,819	597	$80,559

South Atlantic Summary

Alternative 1 would not be expected to have additional economic effects relative to recent years. **Alternative 2** would be expected to have the most negative economic effects relative to recent annual landings for both the recreational and commercial sectors of the cobia component of the fishery in the South Atlantic jurisdiction. **Preferred Alternative 3** would not be expected to have significant negative economic effects for the commercial sector in the Atlantic Zone in

most years. Because there is no discernible trend in recreational landings for this zone, it can be expected that there could be negative impacts for the recreational sector in some years in terms of lost opportunity should the recreational sector be closed as a result of reaching their ACL. However, the recreational cobia component of the fishery, especially in Georgia and the Carolinas takes place largely in a very short period of time. By the time the overage would be detected and fishing stopped for the recreational sector, it is highly probable that very few cobia would be caught the rest of the fishing year.

In the Florida East Coast Zone, the commercial sector would be expected to incur negative economic consequences, particularly if 2010 and 2011 represent an increasing trend. Ranked in order of the greatest to least potential direct negative economic effect, the options under **Preferred Alternative 3** are **Option e, Option f, Preferred Option d, Option a, Option c,** and **Option b**. In the Florida East Coast Zone, the recreational sector would be expected to receive an increase in economic benefits. Ranked in order of the least to most increase in economic benefits to the recreational sector are **Option e, Option f, Preferred Option d, Option a, Option c,** and **Option b**.

Gulf of Mexico

Alternative 1 would maintain the Gulf migratory group cobia ACL and ACT set in CMP Amendment 18. Therefore, no economic effects would be expected to result from **Alternative 1** because it would not affect the harvests or customary uses of the cobia resource in the Gulf. It is important to note that in the Gulf, there is no explicit allocation of cobia resources between the commercial and recreational sectors. **Alternative 2** would redefine the Gulf cobia ACL by assigning a combined ACL for the Florida East Coast and the Gulf Council jurisdictional area. **Alternative 2** would redistribute cobia resources between the South Atlantic and Gulf Councils by shifting a portion of the South Atlantic ACL to the Gulf. The redistribution would be based on the landings recorded in the east coast of Florida. In the Gulf, the increased cobia ACL would be expected to result in an increase in economic benefits should the potential additional fishing opportunities afforded by the proposed increase be realized. The substantial increase in the Gulf ACL from 1.46 million pounds (mp) to 2.246 mp in 2014 that would result from **Alternative 2** would only be translated into economic benefits if fishermen in the Gulf take advantage of the additional fishing opportunities. However, average cobia landings in the Gulf have consistently been below the current ACL. Therefore, assuming no changes in fishing behavior, it is not expected that Gulf fishermen would take advantage of additional fishing opportunities that would result from ACL and ACT increases. As a result, no change in economic benefits would be expected to materialize.

The options proposed in **Preferred Alternative 3** would adjust the Gulf cobia ACL based on average cobia landings recorded for the Gulf migratory group during various time intervals, excluding landings from the east coast of Florida. Table 4.6.2.7 provides summary information on the current Gulf migratory group cobia ACL and ACT, average annual landings (as defined by SEDAR 28), the ACLs and ACTs that would correspond to each option under **Preferred Alternative 3**, and the associated differences relative to the status quo ACL and ACT.

Table 4.6.2.7. **Preferred Alternative 3** ACLs, ACTs, landings (as defined by SEDAR 28), and ACL changes relative to status quo (in million pounds).

Option	Year	Alternative 3		Status Quo ACL	Status Quo ACT	Average Landings	ACL Change	ACT Change
		Stock ACL	Stock ACT					
Option a	2014	1.56	1.4	1.46	1.31	1.10	0.10	0.09
	2015	1.6	1.44	1.46	1.31	1.10	0.14	0.13
	2016	1.65	1.48	1.46	1.31	1.10	0.19	0.17
Option b	2014	1.38	1.24	1.46	1.31	0.86	-0.08	-0.07
	2015	1.41	1.27	1.46	1.31	0.86	-0.05	-0.04
	2016	1.46	1.31	1.46	1.31	0.86	0.00	0.00
Option c	2014	1.48	1.33	1.46	1.31	0.98	0.02	0.02
	2015	1.51	1.36	1.46	1.31	0.98	0.05	0.05
	2016	1.56	1.4	1.46	1.31	0.98	0.10	0.09
Preferred Option d	2014	1.57	1.42	1.46	1.31	1.11	0.11	0.11
	2015	1.61	1.45	1.46	1.31	1.11	0.15	0.14
	2016	1.66	1.5	1.46	1.31	1.11	0.20	0.19
Option e	2014	1.67	1.51	1.46	1.31	1.23	0.21	0.20
	2015	1.71	1.54	1.46	1.31	1.23	0.25	0.23
	2016	1.77	1.59	1.46	1.31	1.23	0.31	0.28
Option f	2014	1.66	1.5	1.46	1.31	1.21	0.20	0.19
	2015	1.7	1.53	1.46	1.31	1.21	0.24	0.22
	2016	1.76	1.58	1.46	1.31	1.21	0.30	0.27

With the exception of **Option b**, the options in **Preferred Alternative 3,** including **Preferred Option d,** would increase the ACL and ACT relative to the status quo, and increase the fishing opportunities for Gulf fishermen. Direct economic benefits would be expected to result from these increases if fishermen elected to take advantage of the additional fishing opportunities. However, average Gulf cobia landings have been below the status quo ACT for all the time intervals considered in **Preferred Alternative 3**. Therefore, all else equal, it is unlikely that these potential economic benefits would materialize in the short run. The ACL and ACT decreases that are proposed in **Alternative 3, Option b** for 2014 and 2015 would, in theory, correspond to adverse economic benefits due to reduced fishing opportunities and, thus, harvests. However, the resulting ACL and ACT under **Option b** are also more than the average cobia landings in the Gulf zone during all of the time periods under consideration. Therefore, all else equal, these potential negative economic effects would not be expected to occur in the short run. In summary, although **Preferred Alternative 3** proposes adjustments to the Gulf migratory group cobia ACL and ACT for 2014 through 2016, the proposed changes, including the adjustments proposed in **Preferred Alternative 3 Option d,** would not be expected to result in any noticeable changes in economic benefits because the average landings recorded to date in the Gulf zone are well below the status quo ACT and all proposed ACTs.

4.6.3 Direct and Indirect Effects on the Social Environment

The social effects of modifications to the cobia ACL are associated with two main factors: updated catch limits based on the most recent information from the stock assessment and any changes in access to the resource**.** Overall, an increase in the ACL (**Alternative 2** and **Preferred Alternative 3**) is expected to benefit commercial and recreational cobia fishermen in addition to communities because the catch level recommendations are based on updated data used in the stock assessment. Gulf communities that would be expected to benefit the most from an increase in the cobia ACL include the Florida West Coast communities of Destin, Panama City Beach and Pensacola, and New Orleans, Louisiana, in addition to Florida Keys communities of Key West, Key Largo, and Islamorada (Figures 3.5.1.5 and 3.5.1.6). South Atlantic communities that are expected to benefit from the updated and increased ACL (under **Alternative 2** and **Preferred Alternative 3**) are primarily in Florida and include Fort Pierce, Jupiter, St. Augustine, Stuart, Sebastian, and Merritt Island, in addition to Hilton Head, South Carolina (Figures 3.5.2.5 and 3.5.2.6).

Because the ACL would not be adjusted to reflect new information and outcomes from the recent stock assessment update, **Alternative 1** would not result in any social benefits expected from incorporating more accurate and up-to-date information into setting catch limits. **Alternative 2** and **Preferred Alternative 3** would be expected to be more beneficial to the fleet, private anglers, and other resource users because the new information better reflects current conditions with cobia. However, **Alternative 2** would assign quota to the Gulf Zone that should be assigned to the Florida East Coast, which result in zero quota for fishermen on the Florida East Coast.

Changes in the ACL for any stock would not directly affect resource users unless the ACL is met or exceeded, in which case AMs that restrict or close harvest could negatively impact the commercial fleet, for-hire fleet, and private anglers. In general, the higher the ACL, the greater the social and economic benefits that would be expected to accrue, assuming long-term sustainability goals are met. Adhering to sustainable harvest goals is assumed to result in net long-term positive social and economic benefits. Additionally, adjustments in an ACL based on updated information from a stock assessment would be the most beneficial in the long term to fishermen and communities because catch limits would be based on the current conditions.

The options for allocation of part of the Gulf ACL to the Florida east coast (**Preferred Alternative 3**) would likely impact fishermen working in the Gulf and on the Florida East Coast. In general, the higher the allocation to the Florida East Coast, the more beneficial for fishermen working off the Florida East Coast due to the opportunity to maintain harvest levels or increase harvest in the future and to reduced risk of meeting the ACL and triggering a commercial in-season closure at an earlier time of the year than anticipated, or total overage that would require a payback in the subsequent year for the sector that exceeded the ACL. Cobia landings vary each year, and it is likely that there would be years in which the Florida East Coast ACL is not met, and years in which the Florida East Coast ACL is met sooner than expected. **Option b** would be the most beneficial with the highest percentage allocated to the Florida East Coast, while **Options e** and **f** could limit fishing opportunities for commercial and recreational fishermen on

the Florida East Coast. **Preferred Option d** would provide less flexibility than **Options a-c**, but would likely be more beneficial to the Florida East Coast than **Options e** and **f.**

4.6.4 Direct and Indirect Effects on the Administrative Environment

Specifying ACLs for cobia in Gulf and Atlantic jurisdictional waters alone would not typically increase the administrative burden over the status quo (**Alternative 1**). However, with the change in the boundary between Gulf and Atlantic migratory cobia stocks moved north to the Florida/Georgia line as dictated by SEDAR 28, the manner in which ACLs are specified for each Council's jurisdiction could result in additional administrative burden. **Alternative 2** may result in a lower ACL for the Atlantic, which may result in quota overages and subsequent fisheries closures. Alternatively, the addition of the east coast of Florida to the Gulf migratory group may make it more unlikely that the Gulf would exceed their ACL. Impacts from options selected for **Preferred Alternative 3** would vary based on the resulting ACL determined from proportional landings analyses over the time period identified in **Options a-f**. NMFS would be responsible for monitoring three regional ACLs under this alternative (Gulf Zone, Florida East Coast Zone, and Atlantic), which would result in increased administrative burdens. Additional administrative burdens that may result from all alternatives considered would take the form of development and dissemination of outreach and education materials to inform fishery participants of any changes to how ACLs and ACTs for Gulf and South Atlantic cobia are determined.

4.7 Cumulative Effects Analysis

As directed by the National Environmental Policy Act (NEPA), federal agencies are mandated to assess not only the indirect and direct impacts, but cumulative impacts of actions as well. NEPA defines a cumulative impacts as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7). Cumulative effects can either be additive or synergistic. A synergistic effect occurs when the combined effects are greater than the sum of the individual effects. The following are some past, present, and future actions that could impact the environment in the area where the CMP fishery is prosecuted.

Past Actions

On April 20, 2010, an explosion occurred on the Deepwater Horizon MC252 oil rig, resulting in the release of an estimated 4.9 million barrels of oil into the Gulf. In addition, 1.84 million gallons of Corexit 9500A dispersant were applied as part of the effort to constrain the spill. The cumulative effects from the oil spill and response may not be known for years. The oil spill affected more than one-third of the Gulf area from western Louisiana east to the Panhandle of Florida and south to the Campeche Bank in Mexico. The impacts of the Deepwater Horizon MC252 oil spill on the physical environment are expected to be significant and may be long-term. Oil was dispersed on the surface, and because of the heavy use of dispersants, oil was also documented as being suspended within the water column, some even deeper than the location of the broken well head. Floating and suspended oil washed onto shore in several areas of the Gulf

as well as non-floating tar balls. Whereas suspended and floating oil degrades over time, tar balls are more persistent in the environment and can be transported hundreds of miles. In a study conducted during the summer of 2011, University of South Florida researchers found more unhealthy fish in the area of the 2010 oil spill compared to other areas. Although some scientists have suggested that these incidences of sick fish may be related to the spill, others have pointed out that there is no baseline from which to judge the prevalence of sick fish, and no connection has been determined. Studies are continuing to check whether the sick fish suffer from immune system and fertility problems (Tampa Bay Times 2012).

The highest concern is that the oil spill may have impacted spawning success of species that spawn in the summer months, either by reducing spawning activity or by reducing survival of the eggs and larvae. The oil spill occurred during spawning months for both king and Spanish mackerel; however, both species have a protracted spawning period that extends beyond the months of the oil spill. Further, mackerels are migratory and move into specific areas to spawn. King mackerel, for example, move from the southern portion of their range to more northern areas for the spawning season. In the Gulf, that movement is from Mexico and south Florida to the northern Gulf (Godcharles and Murphy 1986). However, environmental factors, such as temperature can change the timing and extent of their migratory patterns (Williams and Taylor 1980). The possibility exists that mackerels would be able to detect environmental cues when moving toward the area of the oil spill that would prevent them from entering the area. These fish might then remain outside the area where oil was in high concentrations, but still spawn.

Effects on the physical environment, such as low oxygen, could lead to impacts on the ability of larvae and post-larvae to survive, even if they never encountered oil. In addition, oil exposure could create sub-lethal effects on the eggs, larva, and early life stages. A 2014 study (Incardona et al 2014), embryos of bluefin tuna, yellowfin tuna, and amberjack exposed to environmentally realistic levels of hydrocarbons showed defects in heart function. Other studies of the effects of hydrocarbon are ongoing. The stressors could potentially be additive, and each stressor may increase susceptibility to the harmful effects of the other. If eggs and larvae were affected, impacts on harvestable-size coastal migratory pelagic fish may begin to be seen when the 2010 year class becomes large enough to enter the fishery and be retained. King mackerel mature at 2-3 years (GMFMC and SAFMC 1985; MSAP 1996) and Spanish mackerel mature at 1-2 years (Powell 1975); therefore a year class failure in 2010 could have been felt by the fishery as early as 2011 or 2012. No obvious decreases in CMP stocks in the Gulf have been recorded at this time; the upcoming stock assessment for king mackerel may give an indication of whether these impacts have been realized.

Indirect and inter-related effects on the biological and ecological environment of the CMP fishery in concert with the Deepwater Horizon MC252 oil spill are not well understood. Changes in the population size structure could result from shifting fishing effort to specific geographic segments of populations, combined with any anthropogenically induced natural mortality that may occur from the impacts of the oil spill. The impacts on the food web from phytoplankton, to zooplankton, to mollusks, to top predators may be significant in the future. Impacts to mackerels from the oil spill may similarly impact other species that may be preyed upon by mackerel, or that might benefit from a reduced stock.

Participation in and the economic performance of the CMP fishery addressed in this document have been affected by a combination of regulatory, biological, social, and external economic factors. Regulatory measures have obviously affected the quantity and composition of harvests of species addressed in this document, through the various size limits, seasonal restrictions, trip or bag limits, and quotas. In addition to a complex boundary and quota system, the CMP fishery also exists under regulations on bag limits, size limits, trip limits, and gear restrictions.

The commercial king mackerel permit, king mackerel gillnet endorsement, and the Gulf Charter/Headboat CMP permit are all under limited entry permit systems. New participation in the king mackerel commercial fishery and the for-hire CMP sector in the Gulf require access to additional capital and an available permit to purchase, which may limit opportunities for new entrants. Additionally, almost all fishermen or businesses with one of the limited entry permits also hold at least one (and usually multiple) additional commercial or for-hire permit to maintain the opportunity to participate in other fisheries. Commercial fishermen, for-hire vessel owners and crew, and private recreational anglers commonly participate in multiple fisheries throughout the year. Even within the CMP fishery, effort can shift from one species to another due to environmental, economic, or regulatory changes. Overall, changes in management of one species in the CMP fishery can impact effort and harvest of another species (in the CMP fishery or in another fishery) because of multi-fishery participation that is characteristic in the Gulf and South Atlantic regions.

Biological forces that either motivate certain regulations or simply influence the natural variability in fish stocks have likely played a role in determining the changing composition of the fisheries addressed by this document. Additional factors, such as changing career or lifestyle preferences, stagnant to declining prices due to imports, increased operating costs (gas, ice, insurance, dockage fees, etc.), and increased waterfront/coastal value leading to development pressure for other than fishery uses have impacted both the commercial and recreational fishing sectors. In general, the regulatory environment for all fisheries has become progressively more complex and burdensome, increasing the pressure on economic losses, business failure, occupational changes, and associated adverse pressures on associated families, communities, and businesses. Some reverse of this trend is possible and expected through management. However, certain pressures would remain, such as total effort and total harvest considerations, increasing input costs, import induced price pressure, and competition for coastal access.

Present Actions

Currently a formal consultation is underway (as required by Section 7 in the Endangered Species Act) for the CMP fishery, triggered by the listing in 2012 of the Carolina and South Atlantic distinct population segments (DPSs) of Atlantic sturgeon as endangered under the ESA. Additional requirements may result from the consultation. Additionally, in December 2012, NMFS issued a proposal to list 82 coral species as threatened or endangered, including seven species found in the South Atlantic region, including a proposal to relist two *Acropora* species (elkhorn and staghorn coral) as endangered.

Recent increases in fishing effort and resultant management actions, particularly in the South Atlantic, have restricted access to other species that provide income for mackerel fishermen. In 2013, fishing for 13 species or species groups in the South Atlantic was prohibited before the end

of the year due to ACLs being met. Many commercial mackerel fishermen only fish for mackerel part time. With reduced income from other fishing, some fishermen that have not been very active in the CMP fishery may shift effort to fish for mackerel.

Reasonably Foreseeable Future Actions

The following are actions affecting the CMP fishery that are expected to be implemented within the next year.

- Amendment 20A to the CMP FMP (GMFMC/SAFMC 2013) contains actions that would prohibit some sale of king and Spanish mackerel harvested under the bag limit and would remove the income requirement for king and Spanish mackerel commercial permits.
- A South Atlantic framework action addresses bycatch in Spanish mackerel nets and seeks to modify regulations.
- A generic amendment (effective August 7, 2014) will require for the first time a federal dealer permit (and associated reporting requirements) for individuals buying CMP species.
- Two actions would implement additional reporting requirements for vessels with the Gulf and South Atlantic CMP federal for-hire permits.
- A framework action would increase the ACLs for both migratory groups of Spanish mackerel.
- A framework action to modify the quota and trip limit system for commercial harvest of Atlantic migratory group Spanish mackerel in the Florida EEZ
- A plan amendment would consider reallocation between sectors of the ACLs for Gulf migratory group king mackerel and Atlantic migratory group Spanish mackerel.
- A stock assessment for king mackerel will be completed, and the results could increase or decrease the available fish for harvest.

Although numerous regulatory changes have been proposed for the CMP fishery, the cumulative effects are likely not significant because of the nature of the CMP fishery, which is very different than many other fisheries. For example, in the Gulf Reef Fish and South Atlantic Snapper Grouper fisheries, all species are landed under one permit and in the same area, and each fisherman might be expected to be affected to some extent by all new regulations imposed on reef fish fishermen. However, under the CMP FMP, one single universe of fishermen cannot be assumed. Separate commercial permits are issued to king mackerel and Spanish mackerel fishermen, and no permits are required for cobia fishermen. In addition, king mackerel commercial permits are limited access and can only be purchased from existing permit holders. Some overlap of these groups most certainly occurs; however, different gear types are primarily used to fish for king mackerel and Spanish mackerel, and many fishermen do not switch between gear types. Further, each species is managed under two different sets of regulations, one for each migratory group. A large portion of commercial king mackerel fishermen fish in both the Gulf and South Atlantic, but it would not be expected, for example, that a cobia fisherman in the South Atlantic would also fish for Spanish mackerel in the Gulf. Recreational fishermen are also unlikely to move between the Gulf and South Atlantic, except perhaps in the Florida Keys.

The Environmental Protection Agency's climate change webpage (http://www.epa.gov/climatechange/) provides basic background information on measured or anticipated effects from global climate change. A compilation of scientific information on climate change can be found in the United Nations Intergovernmental Panel on Climate

Change's Fourth Assessment Report (Solomon et al. 2007). Those findings are incorporated here by reference and are summarized. Global climate change can affect marine ecosystems through ocean warming by increased thermal stratification, reduced upwelling, sea level rise, and through increases in wave height and frequency, loss of sea ice, and increased risk of diseases in marine biota. Decreases in surface ocean pH due to absorption of anthropogenic carbon dioxide emissions may impact a wide range of organisms and ecosystems. These influences could affect biological factors such as migration, range, larval and juvenile survival, prey availability, and susceptibility to predators. At this time, the level of impacts cannot be quantified, nor is the time frame known in which these impacts would occur. These climate changes could have significant effects on southeastern fisheries; however, the extent of these effects is not known at this time (IPCC 2007).

In the southeast, general impacts of climate change have been predicted through modeling, with few studies on specific effects to species. Warming sea temperature trends in the southeast have been documented, and animals must migrate to cooler waters, if possible, if water temperatures exceed survivable ranges (Needham et al. 2012). Mackerels and cobia are migratory species, and may shift their distribution over time to account for the changing temperature regime. However, no studies have shown such a change yet. Higher water temperatures may also allow invasive species to establish communities in areas they may not have been able to survive previously. An area of low oxygen, known as the dead zone, forms in the northern Gulf each summer, and has been increasing in recent years. Climate change may contribute to this increase by increasing rainfall that in turn increases nutrient input from rivers. This increased nutrient load causes algal blooms that, when decomposing, reduce oxygen in the water (Needham et al. 2012; Kennedy et al. 2002). Other potential impacts of climate change to the southeast include increases in hurricanes, decreases in salinity, altered circulation patterns, and sea level rise. The combination of warmer water and expansion of salt marshes inland with sea-level rise may increase productivity of estuarine-dependent species in the short term. However, in the long term, this increased productivity may be temporary because of loss of fishery habitats due to wetland loss (Kennedy et al. 2002). Actions from this amendment are not expected to significantly contribute to climate change through the increase or decrease in the carbon footprint from fishing.

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

The cumulative social and economic effects of past, present, and future amendments may be described as limiting fishing opportunities in the short-term, with some exceptions of actions that alleviate some negative social and economic impacts. The intent of these amendments is to improve prospects for sustained participation in the respective fisheries over time and the proposed actions in this amendment are expected to result in some important long-term benefits to the commercial and for-hire fishing fleets, fishing communities and associated businesses, and private recreational anglers. The proposed changes in management for CMP species will

contribute to changes in the fishery within the context of the current economic and regulatory environment at the local and regional level.

Monitoring

The effects of the proposed action are, and will continue to be, monitored through collection of landings data by NMFS, stock assessments and stock assessment updates, life history studies, economic and social analyses, and other scientific observations. Landings data for the recreational sector in the Gulf are collected through the Marine Recreational Information Program, NMFS' Headboat Survey, and the Texas Marine Recreational Fishing Survey. Commercial data are collected through trip ticket programs, port samplers, and logbook programs. Currently, a Southeast Data Assessment and Review assessment of king mackerel is scheduled to be completed in 2014. In response to the Deepwater Horizon MC252 incident, increased frequency of surveys of the recreational sector's catch and effort, along with additional fishery-independent information regarding the status of the stock, were conducted. This will allow future determinations regarding the impacts of the Deepwater Horizon MC252 incident on various fishery stocks.

The proposed action relates to the harvest of an indigenous species in the Gulf and Atlantic, and the activity being altered does not itself introduce non-indigenous species, and is not reasonably expected to facilitate the spread of such species through depressing the populations of native species. Additionally, it does not propose any activity, such as increased ballast water discharge from foreign vessels, which is associated with the introduction or spread on non-indigenous species.

CHAPTER 5. REGULATORY IMPACT REVIEW

5.1 Introduction

The National Marine Fisheries Service (NMFS) requires a Regulatory Impact Review (RIR) for all regulatory actions that are of public interest. The RIR does three things: 1) It provides a comprehensive review of the level and incidence of impacts associated with a regulatory action; 2) it 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) it 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 12866 (E.O. 12866) and whether the approved regulations will have a "significant economic impact on a substantial number of small business entities" in compliance with the Regulatory Flexibility Act of 1980.

5.2 Problems and Objectives

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

5.3 Methodology and Framework for Analysis

This RIR assesses management measures from the standpoint of determining the resulting changes in costs and benefits to society. To the extent practicable, the net effects of the proposed measures for an existing fishery should be stated in terms of producer and consumer surplus, changes in profits, and employment in the direct and support industries. Where figures are available, they are incorporated into the analysis of the economic impacts of the different actions and alternatives.

5.4 Description of the Fishery

A description of the South Atlantic coastal migratory pelagics fishery is contained in Chapter 3 of this amendment and is incorporated herein by reference.

5.5 Effects on Management Measures

A larger scale discussion of the economic effects of the actions are presented in Chapter 4 of this amendment, and are incorporated herein by reference.

Action 1, Preferred Alternative 3 Option a, Preferred Alternative 4 Option b and **Preferred Alternative 4 Option c** would modify commercial trip limits for king mackerel in the Gulf of Mexico zones. For the Western Zone, **Preferred Alternative 3 Option a** would implement the same trip limit as the status quo alternative. Therefore, economic effects are not expected. Economic effects that would result from **Preferred Alternative 4 Option b** and **Preferred**

Alternative 4 Option c are expected to be negligible because more than three quarters of king mackerel trips taken in the Eastern Zone land 1,000 lbs of king mackerel or less.

Action 2, Preferred Alternative 3 Option a would revise the fishing year for Gulf of Mexico king mackerel in the Eastern Zone Northern Subzone. The October 1-September 30 fishing season proposed in **Preferred Alternative 3 Option a** is expected to impact a sizeable portion of the king mackerel annual landings in the Northern Subzone. On average, about 25% of the king mackerel landings in the Northern Subzone have been landed between July 1 and September 30 since the 2004-2005 fishing year. Therefore, the season shift under consideration would be expected to result in sizeable adverse economic effects due to disruptions in customary trip planning. In contrast, **Alternative 3 Option b** is not expected to result in measurable economic effects because less than 0.1% of the king mackerel landings in the Southern Subzone of the Gulf Eastern Zone are harvested between July 1 and September 30.

Action 3, Preferred Alternative 3 allows for transit provisions. The preferred alternative for this action is expected to increase economic benefits because the potential increases in net revenues that would result from more lenient transit provisions, the added flexibility in selecting catch composition, and from costs savings from lower fuel expenditures are assumed to outweigh potential adverse economic effects that could result from earlier closures.

Action 4.1, Preferred Alternative 3 Option b and **Preferred Alternative 4** would establish northern and southern zone quotas for the Atlantic migratory group king mackerel and allow for transfer of quota between zones. The specification of the quotas by zones increases the likelihood that the distribution of king mackerel harvest continues to follow historic harvest patterns and supports the fishermen and associated businesses associated with this harvest. Allowing the transfer of quota across zones helps to increase the likelihood that the entire annual catch limit (ACL) would be harvested and fish are not unnecessarily left unharvested. As a result, the likelihood of negative economic effects from unharvested king mackerel would be expected to be reduced. Available data does not support a determination of whether the allocation of the king mackerel quota to zones, even with transfer between the zones, would differentially impact the zones. The proposed action would allocate the king mackerel to each zone based on the long-term historic harvest patterns. More recent harvest patterns may differ from these historic patterns. As a result, although the total harvest of king mackerel would not be expected to be affected, allocation by zone may result in the transfer of fish, and associated revenue, from fishermen in on zone to fishermen in another. The revenue associated with these transferred fish may be more economically important to the fishermen, and associated businesses, in one zone than to the respective entities in the other zone. As a result, a transfer may not have a net positive or a net neutral economic effect rather than a neutral economic effect. Available data does not support a definitive determination of this net effect. However, because the allocations are based on long-term averages and transfer of quota would be allowed, the net economic effect, whether positive or negative in any given season, would be expected to be small.

The economic effects of **Action 4.2, Preferred Alternative 3 Option b** and **Preferred Alternative 4** would be expected to be similar to those described for **Action 4.1** because **Action 4.2** would establish the same measures as **Action 4.1**, but for Atlantic migratory group Spanish

mackerel instead of king mackerel. In summary, **Action 2, Preferred Alternative 3 Option b** and **Preferred Alternative 4** would increase the likelihood that the harvest pattern, and associated revenue, for Spanish mackerel continues to follow the historic pattern and the total ACL is harvested. Although the net economic effect of this action cannot be determined with available, any net increase or decrease in economic benefits would be expected to be small.

Action 5, Preferred Alternative 2, Preferred Alternative 4 and **Preferred Alternative 5** modify the framework procedure for coastal migratory pelagic species in the Gulf of Mexico and the South Atlantic regions and are primarily administrative in nature; therefore, no economic effects are expected.

Action 6, Preferred Alternative 3 Option d modifies the Gulf and Atlantic migratory group ACLs and recreational ACTs for cobia. The ACLs and ACTs for cobia needed to be set lower for the South Atlantic and higher in the Gulf of Mexico than they had been in the past based on the results of a stock assessment. In the South Atlantic region the 2007 through 2011 average annual landings for the commercial sector are quite close to the preferred alternative and option and are expected to result in annual ex-vessel losses of less than $4,000 per year (2011 dollars).

5.6 Public and Private Costs of Regulations

The preparation, implementation, enforcement, and monitoring of this or any federal action involves the expenditure of public and private resources, which can be expressed as costs associated with the regulations. Costs associated with this action include, but are not limited to Council costs of document preparation, meeting, and other costs; NMFS administration costs of document preparation, meetings and review, and annual law enforcement costs. A preliminary estimate is up to $150,000 before annual law enforcement costs.

5.7 Determination of Significant Regulatory Action

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

CHAPTER 6. REGULATORY FLEXIBILITY ACT ANALYSIS

6.1 Introduction

The purpose of the Regulatory Act Analysis (RFA) is to establish a principle of regulatory issuance that agencies shall endeavor, consistent with the objectives of the rule and of 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 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 various alternatives contained in the fishery management plan (FMP) or amendment (including framework management measures and other regulatory actions) and to ensure the agency considers alternatives that minimize the expected impacts while meeting the goals and objectives of the FMP and applicable statutes.

The RFA requires agencies to conduct a Regulatory Flexibility Act Analysis (RFAA) for each proposed rule. The RFAA 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. An RFAA is conducted to primarily determine whether the proposed action would have a "significant economic impact on a substantial number of small entities." The RFAA provides: 1) A description of the reasons why action by the agency is being considered; 2) a succinct statement of the objectives of, and legal basis for, the proposed rule; 3) a description and, where feasible, an estimate of the number of small entities to which the proposed rule will apply; 4) a description of the projected reporting, record-keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirements of the report or record; 5) an identification, to the extent practicable, of all relevant federal rules, which may duplicate, overlap, or conflict with the proposed rule; 6) a description and estimate of the expected economic impacts on small entities; and 7) an explanation of the criteria used to evaluate whether the rule would impose "significant economic impacts".

6.2 Statement of the need for, objective of, and legal basis for the rule

The need for and objectives of this proposed action are provided in Chapter 1. In summary, the objective of this proposed action is to achieve optimum yield while ensuring regulations are fair and equitable and fishery resources are utilized efficiently. The Magnuson-Stevens Fishery Conservation and Management Act provides the statutory basis for this proposed action.

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

This proposed action, if implemented, would be expected to directly affect all commercial and for-hire fishing vessels that harvest the coastal migratory pelagic species (CMP; king mackerel, Spanish mackerel, or cobia) managed in the Gulf of Mexico (Gulf) and Atlantic regions. A federal commercial permit is required to harvest king mackerel or Spanish mackerel in the Gulf or Atlantic Exclusive Economic Zone (EEZ) in excess of the bag limit and to sell these species. On November 7, 2013, 1,479 vessels possessed a valid (non-expired) or renewable commercial king mackerel permit, and 1,813 vessels possessed a valid commercial Spanish mackerel permit. A renewable permit is an expired permit that may not be actively fished, but is renewable for up to one year after permit expiration. Because the federal commercial Spanish mackerel permit is an open access permit, expired permits are not renewed; if a permit expires before renewal, a new permit would be issued (if applied for) instead of renewal of the expired permit. A federal commercial permit is not required to harvest cobia. However, over the period 2008-2012, an average of 432 commercial vessels harvested cobia in the Atlantic and 266 commercial vessels harvested cobia in the Gulf. Many vessels possess both the king mackerel and Spanish mackerel permits and harvest each of the three CMP species. As a result, many, if not most, of the vessels harvesting cobia are likely included in the counts of vessels having the individual king or Spanish mackerel commercial permits. A tally of the number of unique vessels across all three species is not available. The estimated average annual gross revenue from all fishing activity by commercial vessels in these fleets ranges from an average of approximately $31,000 (2011 dollars) for vessels with recorded harvests of Atlantic migratory group Spanish mackerel to approximately $114,000 (2011 dollars) for vessels with recorded harvests of Gulf migratory group cobia.

A federal for-hire (charter/headboat) vessel permit is required for for-hire vessels to harvest CMP species in the Gulf or Atlantic EEZ. On November 7, 2013, 1,360 vessels had a valid or renewable Gulf federal for-hire CMP permit for these species and 1,427 vessels had a valid Atlantic for-hire CMP permit. Similar to the case for the Spanish mackerel commercial permit, the Atlantic for-hire CMP permit is an open access and expired permits are not renewed. The for-hire fleet is comprised of charterboats, which charge a fee on a vessel basis, and headboats, which charge a fee on an individual angler (head) basis. Although the for-hire permit application collects information on the primary method of operation, the resultant permit itself does not identify the permitted vessel as either a headboat or a charter vessel, operation as either a headboat or charter vessel is not restricted by the permitting regulations, and vessels may operate in both capacities. However, only federally permitted headboats are required to submit harvest and effort information to the National Marine Fisheries Service (NMFS) Southeast Region Headboat Survey (HBS). Participation in the HBS is based on determination by the Southeast Fisheries Science Center that the vessel primarily operates as a headboat. On March 1, 3013, the HBS included 70 vessels in the Gulf and 75 vessels in the Atlantic. As a result, 1,290 of the vessels with a valid or renewable Gulf for-hire CMP permits and 1,400 of the vessels with a valid Atlantic for-hire CMP permit are expected to primarily operate as charterboats. In the Gulf, the average charterboat is estimated to earn approximately $80,000 (2011 dollars) in annual revenue and the average headboat is estimated to earn approximately $242,000. For the

Atlantic, the comparable estimates are approximately $111,000 (2011 dollars) and $197,000 for charterboats and headboats, respectively.

NMFS has not identified any other small entities that would be expected to be directly affected by this proposed action.

The Small Business Administration (SBA) has established size criteria for all major industry sectors in the U.S., including fish harvesters. A business involved in fish harvesting 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 $19.0 million (NAICS code 114111, finfish fishing) for all its affiliated operations worldwide. This receipts threshold is the result of a final rule issued by the SBA on June 20, 2013, that increased the size standard for business engaged in commercial finfish fishing from $4.0 to $19.0 million. The receipts threshold for a business involved in the for-hire fishing industry is $7.0 million (NAICS code 487210, fishing boat charter operation). This receipts threshold has not been changed as a result of recent review by the SBA. Because the average annual revenue estimates provided above are significantly less than the SBA revenue thresholds for the appropriate sectors, all commercial and for-hire vessels expected to be directly affected by this proposed action are believed to be small business entities.

6.4 Description of the projected reporting, record-keeping and other compliance requirements of the proposed action, including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for the preparation of the report or records

This proposed action would not require any new reporting, record-keeping, or other compliance requirements associated with reporting or record-keeping that may require professional skills.

6.5 Identification of all relevant federal rules, which may duplicate, overlap or conflict with the proposed action

No duplicative, overlapping, or conflicting federal rules have been identified.

6.6 Significance of economic impacts on a substantial number of small entities

Substantial number criterion

This proposed action, if implemented, would be expected to directly impact all small business entities in the federally permitted commercial and for-hire CMP fleets. As a result, this proposed action would be expected to directly affect a substantial number of the small entities.

Significant economic impacts

The outcome of "significant economic impact" can be ascertained by examining two factors: disproportionality and profitability.

Disproportionality: Do the regulations place a substantial number of small entities at a significant competitive disadvantage to large entities?

All entities expected to be directly affected by the measures in this proposed action are determined for the purpose of this analysis to be small business entities, so the issue of disproportionality does not arise.

Profitability: Do the regulations significantly reduce profits for a substantial number of small entities?

This proposed amendment contains seven separate actions. The first action would eliminate the trip limit step-down provisions that are currently required in two subzones when 75% of the subzone quota is harvested. Trip limit step-downs (step-downs) are intended to extend the time before the quota is harvested and, because quota monitoring is not instantaneous, reduce the likelihood and amount of quota overages. However, step-downs lower the profitability of trips, as fewer pounds can be harvested. Even when other species can be substituted, which may not routinely be possible, trip profits would be expected to decline when step-downs are imposed, otherwise shift to more profitable species or fishing practices would have occurred in the absence of the step-downs. In the case of Gulf migratory group king mackerel, the reduced trip revenue and profits under the current step-downs are believed to exceed the economic benefits associated with prolonging the season or addressing quota issues. As a result, the proposed elimination of the step-down in the trip limits would be expected to result in increased revenue and profits to affected entities.

The second action would change the fishing year for the Gulf group king mackerel Eastern Zone Northern Subzone. This proposed action would be expected to affect commercial vessels that harvest king mackerel. However, the economic effects of these proposed changes on these small entities are unknown. Participation and financial success in king mackerel commercial fishing is affected by the migratory behavior of the species, regional quotas, transient and part-time participation by fishermen that homeport in each respective zone or travel from ports in other zones, and the ability to participate in other fisheries. Although king mackerel may be present throughout the Gulf year-round, migration patterns cause stock densities in a given area to vary independent of fishing pressure. Regional quotas result in zone closures when quotas are met although king mackerel remain present and stock densities may remain high. Many fishermen travel throughout the Gulf to take advantage of migratory stock pulses (i.e., surges in the stock in an area because fish have migrated in) or in reaction to fishing restrictions, such as a king mackerel quota closure or restriction on alternative species, near their homeport. Others may harvest king mackerel on a part-time basis, and can cause wide fluctuation in the amount of fishing effort applied. Finally, some fishermen possess the necessary permits to participate in other fisheries, as a commercial or for-hire vessel, while other fishermen do not have these permits and, as a result, have more limited options. These factors have contributed to the current

distribution of fishing effort, harvest patterns, dockside prices, timing of closures, and potentially variable year-to-year financial success of individual businesses and the commercial king mackerel fleet as a whole. Changing the fishing year in these two zones would be expected to alter these patterns, improving the economic situation for some vessels, but worsening the situation for others. Identifying the entities that would be expected to financially gain, lose, or not be affected from changing the fishing year, as well as quantifying respective changes is not possible because of the complexity of the situation and potential outcomes, and the behavioral response by fishermen is unknown. However, supporting comments provided by the industry during the amendment development process suggest the proposed change would be economically beneficial because it would allow dually permitted (vessels that possess a commercial permit and a charter/headboat permit) to commercially harvest king mackerel during a period when charter activity typically declines. This commercial activity by these vessels could not occur in the absence of this proposed action because the quota has normally already been harvested.

The third action would allow vessels with king mackerel legally harvested in open areas to travel through areas closed to king mackerel fishing if the transit is continuous and gear is stowed. This proposed action would be expected to result in an unquantifiable increase in economic benefits to commercial fishermen by allowing greater flexibility in port selection and reducing travel costs.

Although separate actions, the fourth and fifth actions are similar in that they would establish northern and southern quotas for Atlantic migratory group king mackerel and Atlantic migratory group Spanish mackerel, respectively, and allow transfer of quota between regions. The proposed regional (northern and southern) quotas for Atlantic migratory group king mackerel would not be expected to have a significant economic effect on commercial fishing businesses. The proposed Northern Zone quota, approximately 1.293 mp, would be higher than the average landings in this zone during the three most recent fishing years for which final data are available, 2009-2010 through 2011-2012, by approximately 790,000 lb. As a result, if the proposed Northern Zone quota is harvested, the commercial fishermen who harvest king mackerel in this zone would be expected to receive an increase in vessel revenue of approximately $6,300 (2011 dollars) per vessel (270 vessels), or approximately 17.9 percent of the average annual gross revenue per vessel (approximately $35,100 for vessels operating in either the northern or southern zone; estimates per zone are not available). For the Southern Zone, the proposed quota, approximately 2.587 mp, would be approximately 83,000 lb higher than the average landings for the three most recent fishing years. As a result, if the quota in the Southern Zone is harvested, the commercial fishermen who harvest king mackerel in this zone would be expected to receive an increase in vessel revenue of approximately $211 (2011 dollars) per vessel (846 vessels), or approximately 0.6 percent of the average annual gross revenue per vessel.

It is noted that the total Atlantic migratory group king mackerel quota, 3.71 mp, has not been harvested since, and including, the 2002-2003 fishing year, and the average amount of unharvested quota per fishing year during this period has been approximately 29 percent. This circumstance drives the outcome, as described in the previous paragraph, that fishermen in both zones can experience an increase in revenue under the proposed quotas if the quotas are harvested, rather than fishermen in one zone gain at the expense of fishermen in the other zone. However, because this result is dependent on the quota being completely harvested, which would

be an anomaly, the full projected increases in revenue may not occur. Further, for the southern zone, although an increase in revenue is forecast based on the average harvests for the most recent three fishing years (and would increase to approximately $2,000 per vessel, or approximately 6% of the average annual revenue if compared to average annual harvest from the 2002-2003 through 2011-2012 fishing years, which represent the most recent nine fishing years for which final data are available), harvest in the 2009-2010 (approximately 2.776 mp) and 2010-2011 (approximately 3.113 mp) fishing years exceeded the proposed quota for the southern zone. The net increase in revenue relative to the three-year period previously discussed is an artifact of the decline in harvest in the 2011-2012 fishing year compared to the previous two fishing years to approximately 1.623 mp. The king mackerel harvest in 2011-2012 was more similar to the average harvest over the 2002-2003 through 2011-2012 fishing years, approximately 1.787 mp. As a result, the proposed Southern Zone king mackerel quota may result in a decline in revenue for some fishermen if fishing conditions in coming years more closely mirror those of 2009-2010 or 2010-2011 than either the most recent three-year average, the longer nine-year average, or other fishing years when lower harvests occurred. Compared to the average harvest of the 2009-2010 and 2010-2011fishing years, the proposed Southern Zone king mackerel quota would be expected to reduce the revenue per commercial vessel by approximately $900 per vessel, or approximately 2.6% of the average annual gross revenue per vessel.

For Spanish mackerel, the proposed northern and southern zone quotas would be expected to have minor to no economic effects on the revenue of commercial vessels. The proposed quotas equal the average distribution of Spanish mackerel harvest across the Northern and Southern Zones over the 2002-2003 through 2011-2012 fishing years. As a result, if harvest patterns in future years are consistent with prior average harvest, no economic effects would be expected to occur. If, similar to the discussion of the quotas for king mackerel, future Spanish mackerel harvest in the absence of the proposed zone quotas would be expected to follow the more recent 2009-2010 through 2011-2012 harvest patterns, then the proposed Northern Zone quota would be expected to result in a minor reduction in revenue per vessel (300 vessels), approximately $173 (2011 dollars), or approximately 0.6 percent of the average annual gross revenue per vessel (approximately $31,000 for vessels operating in either the Northern or Southern Zone; estimates per zone are not available). For vessels in the Southern Zone, the proposed quota would be expected to result in a minor increase in average revenue per vessel (1,251 vessels), approximately $41, or approximately 0.1 percent of the average annual gross revenue per vessel.

The sixth action would expand the range of actions that could be modified through the framework procedure rather than the slower and more costly plan amendment process. This proposed action would also designate Council responsibility for setting regulations for the migratory groups of each species. Collectively, these changes would be expected to allow regulatory changes to occur in a more timely and efficient manner. Although regulatory changes may have direct adverse economic consequences, this proposed action would not make any regulatory changes but would, rather, simply change the administrative environment to allow these changes to be made in the future. As a result, this action would not be expected to have any direct economic effect on any small entities.

The seventh action would modify the Gulf and Atlantic migratory group cobia ACLs and annual catch targets (ACTs). For the commercial sector, the proposed changes would be expected to

increase the total ex-vessel revenue received by vessels in the Atlantic Zone by approximately $31,000 (2011 dollars), reduce total ex-vessel revenue by approximately $56,000 (2011 dollars) for commercial vessels in the Florida East Coast Zone, and not have any effect on the ex-vessel revenue for vessels in the Gulf. For the Atlantic and Florida East Coast Zones, the net reduction in ex-vessel revenue is expected to be approximately $25,000. The total expected reduction in ex-vessel revenue would equate to approximately $58 per vessel (432 vessels), or approximately 0.1% of the average annual gross revenue for these vessels ($41,600). For the recreational sector, the proposed changes would be expected to increase the total net operating revenue (NOR; NOR equals revenue minus non-labor operating expenses) received by for-hire vessels in the Florida East Coast Zone by approximately $118,000 (2011 dollars), reduce the NOR received by for-hire vessels in the Atlantic Zone by approximately $3,000 (2011 dollars), and not have any direct economic effect on for-hire vessels in the Gulf. The net expected increase in NOR for the for-hire vessels in the Atlantic and Florida East Coast Zones is approximately $115,000. This increase is expected to all accrue to charter boats. Additional increases in NOR may accrue to headboats that operate in the South Atlantic. However, the estimated changes in NOR are calculated based on expected increases in fishermen target trips, and target information is not collected from headboat fishermen. As a result, an estimate of the expected increase in NOR to South Atlantic headboats is not available. The expected increase in NOR to charter boats would equate to approximately $80 per vessel (1,400 vessels), or a minor increase relative to average annual revenue ($111,000). The proposed changes in the ACLs and ACTs would not be expected to have any direct economic effect on any small entities in the Gulf because, although the new harvest limits would be higher than current limits, fishermen in the Gulf have not harvested the current lower harvest limit. As a result, the proposed changes for the Gulf migratory group would not be expected to result in increased harvest or associated revenue in the near term. However, the proposed changes in the ACLs and ACTs for the Gulf migratory group would allow an increase in ex-vessel revenue and profit to small business fishing entities in the Gulf if fishing behavior and harvest patterns change.

In summary, most of the changes in this proposed amendment, if adopted, would be expected to either have no direct economic effect on any small business entities or result in an increase in economic benefits. The two proposed actions that would be expected to have adverse effect would only be expected to result in minor reductions in revenue to directly affected small business entities. As a result, this proposed action, if adopted, would not be expected to have a significant economic effect on a substantial number of small entities.

6.7 Description of the significant alternatives to the proposed action and discussion of how the alternatives attempt to minimize economic impacts on small entities

This proposed action, if adopted, would not be expected to have a significant economic effect on a substantial number of small entities. As a result, the issue of significant alternatives is not relevant.

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Stephen Holiman, NMFS/SF	Economist	Economic environment and impacts, Regulatory Flexibility Act analysis
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GMFMC = Gulf of Mexico Fishery Management Council, SAFMC = South Atlantic Fishery Management Council, NMFS = National Marine Fisheries Service, SF = Sustainable Fisheries Division, PR = Protected Resources Division, HC = Habitat Conservation Division, GC = General Counsel

CHAPTER 8. LIST OF AGENCIES AND ORGANIZATIONS CONSULTED

National Marine Fisheries Service
- Southeast Fisheries Science Center
- Southeast Regional Office
- Office for Law Enforcement

NOAA General Counsel

Environmental Protection Agency
United States Coast Guard
Texas Parks and Wildlife Department
Alabama Department of Conservation and Natural Resources/Marine Resources Division
Louisiana Department of Wildlife and Fisheries
Mississippi Department of Marine Resources
Florida Fish and Wildlife Conservation Commission
Georgia Department of Natural Resources/Coastal Resources Division
South Carolina Department of Natural Resources/Marine Resources Division
North Carolina Division of Marine Fisheries

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APPENDIX A. ALTERNATIVES CONSIDERED BUT REJECTED

Action 1 - Modify the Commercial Hook-and-Line Trip Limits for Gulf Migratory Group King Mackerel.

Alternative: Set the commercial hook-and-line trip limit at 1,500 pounds with no reduction.

Option a: For the Western zone
Option b: For the Eastern Zone Northern Subzone
Option c: For the Eastern Zone Southern Subzone

Alternative: Set the commercial hook-and-line trip limit at 2,000 pounds with no reduction.

Option a: For the Western zone
Option b: For the Eastern Zone Northern Subzone
Option c: For the Eastern Zone Southern Subzone

Action 2 - Change the Fishing Season for Gulf Group King Mackerel for the Eastern and Western Zone.

Alternative: Change the fishing season for Gulf group king mackerel season to November 1 – October 31.

Option a: For the Western Zone
Option b: For the Eastern Zone

Discussion: The Councils removed this alternative after receiving public comment that fishermen were not interested in moving the opening date of the Gulf king mackerel fishing season to November in any of the Gulf zones.

Alternative: Change the fishing year for Gulf group king mackerel season to September 1 – August 31.

Option a: For the Western Zone

Discussion: The Councils removed this option after receiving public comment that the majority of fishermen, especially those who fish the Western Zone, were not interested in moving the opening date of the Gulf king mackerel fishing season to September. The Councils had initially expressed disagreement on this issue; however, after receiving public testimony between March 2014 and April 2014, the Councils concurred on the removal of this option.

Actions complete removed:

Consider modifications to the existing commercial fishery boundary line between the Gulf group king mackerel eastern zone and western zone (currently set at the Alabama - Florida border [87°31'06"]).

Alternative 1: No Action - Retain the current boundary between the eastern and western zones at the Alabama/Florida border

Alternative 2: Move the current boundary line between the eastern zone and western zone from the Alabama/Florida border to Cape San Blas, Florida (85°30' w. longitude).

Alternative 3: Move the current boundary line between the eastern zone and western zone from the Alabama/Florida border to 89°30' w. longitude near the mouth of the Mississippi river.

Discussion: The current boundary between the eastern and western zones at the Alabama/Florida border was set in 1985 with the implementation of Amendment 1 to the Coastal Migratory Pelagics Fishery Management Plan (Figure 2.1.1). This line was chosen because existing scientific information at that time recognized a western migratory group of king mackerel that moved northward up the Texas and Louisiana coasts in spring and summer and southward in fall and winter. Another migratory group moved northward from the Florida Keys area to the Panhandle area of Florida in the spring and summer and back southward in fall and winter. Although these groups were known to mix, such mixing was believed to be small, and the Mississippi River outfall appeared to be somewhat of a barrier. In considering the boundary, the Councils also took into consideration the need to allow all areas of the Gulf some degree of access to the stock. The stock is managed under a commercial allocation of total allowable catch (TAC), and the TAC was very low at that time (only approximately 2.9 mp as compared to 10.2 mp over the past few years). With a set season and TAC, it was believed that without a zone/separate TAC allocation, the entire TAC would be taken before fish migrated into some areas. The Councils also considered that there was very little participation in the commercial fishery from Alabama and Mississippi, thus the dividing line at the Florida/Alabama border and a July 1 season opening were considered the least disruptive measures to participants. These decisions were based on known elements of the fishery from the mid to late 1970s. A review of the current and more recent past data may provide additional information.

Consider retaining or eliminating the northern subzone based on any of the boundaries chosen in Action 1. If eliminated, consider transferring the current allocation percentage to either the eastern or western zone based on any of the boundaries chosen in Action 1.

Alternative 1: No Action – Retain the existing northern and southern subzones and retain the existing allocations for these areas

Alternative 2: Eliminate the northern subzone and add the assigned allocation to the eastern zone based on any of the boundaries chosen in Action 1.

Alternative 3: Eliminate the northern subzone and add the assigned allocation to the western zone based on any of the boundaries chosen in Action 1.

Alternative: Develop alternatives to permit access to the king mackerel fishery by those just north of the Collier/Lee boundary.

Discussion: In 2000, the Council established two subzones off the west coast of Florida with the northern subzone extending from the Collier/Lee County line to the Alabama/Florida border. This action was based on the king mackerel fishery in the panhandle area of Florida having significantly increased its catch in the last few years prior to 1999. In establishing this northern subzone the Gulf and South Atlantic Councils agreed to allocate to this new subzone a small

portion of the total allocation for the eastern zone (approximately 3.85% that amounted to approximately 168,500 pounds). Since the implementation of this action, the northern subzone has caught its allocation in seven of the twelve years. However, when the subzone has been closed, it has happened usually in the fall, before the fish have migrated south. The result is that fishermen along the peninsula of Florida do not have an opportunity to participate in the fishery during those years. Combining the northern subzone with the southern subzone or western zone reduces the number of quota areas for Gulf group king mackerel from 3 to 2, thus it simplifies monitoring. It also provides for a larger potential share of TAC for fishermen over a broader area.

Restrictions on fishing for king mackerel in multiple zones.

Alternative 1: No Action – vessels with king mackerel commercial vessel permits may fish in any zone of the Gulf or South Atlantic.

Alternative 2: Require that prior to the beginning of the fishing year, each owner of a permitted commercial king mackerel hook-and-line vessel must identify the zone/subzone in which the vessel will fish during the upcoming fishing year (western zone, Florida east coast subzone, Florida west coast southern subzone, or Florida west coast northern subzone).

Option a: only one zone may be identified

Option b: two zones may be identified

Alternative 3: Require an endorsement to fish in a particular zone or subzone.

Option a: Only one endorsement is allowed at any one time, and it is not transferable during that year.

Option b: No more than two endorsements are allowed at any one time, and they are not transferable during that year.

Discussion: Historically, commercial king mackerel hook-and-line vessels have primarily fished in the zones that they are home-ported. In recent years, however, a fleet of vessels from the east coast of Florida has traveled to the western zone in the summer months to fish on that quota and subsequently moved to the Florida west coast northern subzone; thus following the migrating fish from area to area where they are most abundant. This additional effort in each zone has resulted in earlier than normal closings in some years. Requiring vessels to declare and fish in only 1 or 2 zones/subzones during a given year would help reduce the chance of early closures and could help maintain a higher ex-vessel value. On the other hand, it would probably increase the monitoring and enforcement burden tremendously. Requiring an endorsement would ease the at sea enforcement burden of identifying the legal area in which a vessel is entitled to fish

Set the Gulf and Atlantic migratory group cobia annual catch limits (ACLs).

Alternative 1: No Action –

a. The Gulf migratory group cobia ACL = ABC for Gulf migratory group cobia [1.46 mp based on preferred ABC]. Set a single stock ACL
b. The Atlantic migratory group cobia ACL = OY = ABC (currently 1,571,399 lbs based on the SSC Interim Control Rule; Recreational Sector ACL = 92% = 1,445,687 lbs; Commercial Sector ACL = 8% = 125,712 lbs)

c. The entire Gulf migratory group cobia ACL applies to the Gulf Council jurisdictional area and the South Atlantic migratory group cobia ACL applies to the South Atlantic jurisdictional area.

Alternative 2: The Gulf migratory group cobia ACL = ABC for Gulf migratory group cobia based on the SSC control rule and latest stock assessment. The ABC/ACL for the Gulf migratory group cobia would be divided between the Gulf jurisdictional area and the east coast of Florida based on the options below. A portion of the Gulf group cobia ACL is assigned to the east coast of Florida. The ACL for the Atlantic migratory group cobia = OY = ABC from the SSC based on the most recent stock assessment, plus the ABC/ACL from the Gulf for the east coast of Florida.

Option a: Use 2000-2009 landings to establish the percentage split by subzone.
Option b: Use 2005-2009 landings to establish the percentage split by subzone.
Option c: Use 2007-2009 landings to establish the percentage split by subzone.
Option d: Other years???

Alternative 3: The Gulf migratory group cobia ACL = ABC for Gulf migratory group cobia based on the SSC control rule and latest stock assessment. The ABC/ACL for the Gulf migratory group cobia would be divided between the Gulf jurisdictional area and the east coast of Florida based on the options below. A portion of the Gulf group cobia ACL is assigned to the east coast of Florida. The ACL for the Atlantic migratory group cobia = OY = 90% of the ABC from the SSC based on the most recent stock assessment, plus the ABC/ACL from the Gulf for the east coast of Florida.

Option a: Use 2000-2009 landings to establish the percentage split by subzone.
Option b: Use 2005-2009 landings to establish the percentage split by subzone.
Option c: Use 2007-2009 landings to establish the percentage split by subzone.

Set annual catch target (ACTs) by sub-zones for Atlantic migratory group cobia.

Alternative 1: No Action – There is no commercial sector ACT for Atlantic migratory group cobia. The recreational sector ACT equals sector ACL*[(1-PSE) or 0.5, whichever is greater] (currently 1,184,688 lbs). Note: PSE is the average of the most recent 5 years data available.

Alternative 2: The commercial sector ACT for the Atlantic migratory group cobia for each subzone (to be determined by Action 7) equals 90% of the subzone ACL. The recreational sector ACT for the Atlantic migratory group cobia subzones (to be determined by Action 7) equals sector ACL*[(1-PSE) or 0.5, whichever is greater]. Note: PSE is the average of the most recent 5 years data available.

Specify Accountability Measures (AMs) by sub-zones for Atlantic migratory group cobia.

Alternative 1: No Action:

a. The commercial AM for Atlantic migratory group cobia is to prohibit harvest, possession, and retention when the commercial quota (total ACL x commercial allocation) is met or projected to be met. All purchase and sale is prohibited when the commercial quota is met or projected to be met.

b. The recreational AM for Atlantic migratory group cobia is if the recreational sector quota (total ACL x recreational allocation) is exceeded, the Regional Administrator shall publish a notice to reduce the length of the following fishing year by the amount necessary to ensure landings do not exceed the recreational sector quota for the following fishing year. Compare the recreational ACL with recreational landings over a range of years. For 2011, use only 2011 landings. For 2012, use the average landings of 2011 and 2012. For 2013 and beyond, use the most recent three-year (fishing years) running average. If in any year the ACL is changed, the sequence of future ACLs will begin again starting with a single year of landings compared to the ACL for that year, followed by two-year average landings compared to the ACL in the next year, followed by a three-year average of landings ACL for the third year and thereafter. Only adjust the recreational season length if the Total ACL is exceeded.
c. Commercial payback of any overage. Payback only if overfished - If the commercial sector ACL is exceeded, the Assistant Administrator for Fisheries shall file a notification with the Office of the Federal Register to reduce the commercial sector ACL in the following year by the amount of the overage.
d. Recreational payback of any overage from one year to the next. Payback only if overfished - If the recreational ACL is exceeded, the Assistant Administrator for Fisheries shall file a notification with the Office of the Federal Register to reduce the recreational ACL in the following year by the amount of the overage. The ACT would also be adjusted according to the ACT formula in CMP Amendment 18, Action 19-6. Only deduct overages if the Total ACL is exceeded

Alternative 2: The current commercial and recreational AMs for Atlantic migratory group cobia apply to each of the Atlantic migratory group cobia subzones (as determined by Action 7).

Alternative 3: The current commercial and recreational AMs for Atlantic migratory group cobia apply to each of the Atlantic migratory group cobia subzones (as determined by Action 7) except that the 3-year moving average is replaced by the most recent year's landings.

Discussion: The three actions above were removed because SEDAR 28 was not expected to be completed in time for inclusion in this amendment. However, SEDAR 28 was completed before public hearings so a new action was added to address the same issue.

Modify Subzones and Allocation of Gulf Migratory Group Eastern Zone King Mackerel.

Alternative 1: No Action – Retain the existing northern and southern subzones and retain the existing allocations for these areas.

Alternative 2: Eliminate the current northern and southern subzones and add the assigned allocation to the combined eastern zone.

Alternative 3: Modify the Florida West Coast subzones and reallocate quota

Option a: Retain subzones but modify the boundary between the northern and southern subzones to the Dixie/Levy County line.

Option b: Create a third Florida West Coast subzone from the Collier/Lee County line to the Dixie/Levy County line with an allocation based on:

Suboption i. Reallocating x lbs from the Southern subzone hook-and-line fishery
Suboption ii. Reallocating x lbs from the East Coast Zone, Gill Net allocation, and Southern Subzone allocation
Suboption iii. Reallocating 2% from the recreational sector allocation based on a temporary reallocation for the next 5 years

Option c: Retain the current subzones but increase the allocation to the Northern subzone based on:

suboption i. Reallocating x lbs from the Southern Subzone hook-and-line fishery
suboption ii. Reallocating x lbs from the East Coast Zone, Gill Net allocation, and Southern Subzone allocation
suboption iii. Reallocating 2% from the recreational sector allocation based on a temporary reallocation for the next 5 years

Discussion: In 2000, the Gulf of Mexico Fishery Management (Gulf Council) established two subzones off the west coast of Florida with the northern subzone extending from the Collier/Lee County line to the Alabama/Florida border and the southern subzone extending over Collier and Monroe counties. This action was based on the king mackerel fishery in the panhandle area of Florida having significantly increased its catch in the last few years prior to 1999. In establishing this northern subzone the Gulf and South Atlantic Councils agreed to allocate to this new subzone a small portion of the total allocation for the eastern zone (approximately 3.85% that amounted to approximately 168,500 lbs). Since the implementation of this action, the northern subzone has caught its allocation in seven of the twelve years. However, when the subzone has been closed, it has happened usually in the fall, before the fish have migrated south. The result is that fishermen along the peninsula of Florida do not have an opportunity to participate in the fishery during those years. Combining the northern subzone with the southern subzone reduces the number of quota areas for Gulf group king mackerel from three to two, thus it simplifies monitoring. It also provides for a larger potential share of TAC for fishermen over a broader area.

Establish State-by-State or Regional Quotas for Atlantic Migratory Group King Mackerel, Spanish Mackerel, and Cobia.

Alternative 1: No Action - retain one commercial quota each for Atlantic migratory groups of king mackerel, Spanish mackerel, and cobia.

Alternative 2: Establish commercial quotas for each South Atlantic state for Atlantic migratory groups of king mackerel, Spanish mackerel, and cobia. Establish a commercial quota for the Mid-Atlantic Council (Virginia-New York) area for Atlantic migratory group of king mackerel, Spanish mackerel, and cobia.

Option a: king mackerel
Option b: Spanish mackerel
Option c: cobia

Alternative 3: Establish commercial quotas for three regions: North Carolina/South Carolina, Georgia/Florida, and Mid-Atlantic for Atlantic migratory groups of king mackerel, Spanish mackerel, and cobia.

Option a: king mackerel
Option b: Spanish mackerel
Option c: cobia

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 include the National Environmental Policy Act (sections throughout the document), Endangered Species Act (Section 3.3.3), Marine Mammal Protection Act (Section 3.3.3), E.O. 12866 (Regulatory Planning and Review, Chapter 5) and E.O. 12898 (Environmental Justice, Section 3.5.5). Other applicable laws 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.

Coastal Zone Management Act

Section 307(c)(1) of the federal Coastal Zone Management Act of 1972 (CZMA), as amended, requires federal activities that 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 plan amendment is consistent with the Coastal Zone Management programs of the states of Gulf and Atlantic region states 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.

Data Quality Act

The Data Quality Act (DQA) (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 DQA directs the Office of Management and Budget 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 Office of Management and Budget 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 DQA, 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.

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. 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 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 amendment. Therefore, consultation with state officials under Executive Order 12612 is not necessary.

APPENDIX C. SUMMARIES OF PUBLIC COMMENTS RECEIVED

Summary of Scoping Comments Received during Gulf of Mexico Site Visits on:
Coastal Migratory Pelagic Amendment 19 (now 20A)
Coastal Migratory Pelagic Amendment 20 (now 20B)

Smitty's Bait and Tackle – Galveston, TX
CMP Amendment 19
The manager is concerned that limiting the sale of Coastal Migratory Pelagics will further harm his business. In Texas they use Spanish mackerel for shark fishing and he has already downsized from a walk-in freezer to a chest cooler for bait because of the regulations.

Richard Diaz and Rubin Ravelo – Florida Keys Commercial Fishermen
Half of the fleet isn't fishing because it is not worth it to run 60 miles offshore to catch 1,250 lbs. of king mackerel. According to their calculations:
$1,600 – Gross pay for 1250 lbs of kingfish.
-$ 800 – Fuel
-$ 100 – Spoons (bait)
- $ 100 – Ice
$600 – to divide among crew and captain and boat share for a 12-hour work day.
He would like the Council to eliminate the trip limit completely in the kingfish fishery. They would prefer that the trip limit not be reduced to 500 lbs. after 75% of the quota is caught. The Council should consider allowing a two-day trip limit for the hook and line fishermen. They would happily hail in and hail out to ensure their trips are tracked.

CMP Amendment 19
Action 3 – They suggest Council get rid of latent permits in the gillnet fishery.
Action 5 – Make it harder to qualify for permits, not easier.

CMP Amendment 20
Actions 4 and 5 – Requiring fishermen to identify which zones they want to fish in is a good idea. Fishermen in the Keys don't really leave the area to fish.

Gary Graves- Keys Fisheries –
CMP Amendment 19
Action 2 – The recreational sale of fish should be limited. Currently, back door and non-reported sales are a rampant issue in the Keys. Maybe instead of stopping sale altogether, the Council could make the fishermen sell their fish to a fish house only.

CMP Amendment 20

Actions 4 and 5 – It is traditional for fishermen to follow the fish. Some fishermen may want to protect their home stock, but the traveling fishermen should not be limited. Make the Annual Catch Limit and let the king fishermen harvest it as they please.

Summary of Gulf of Mexico Scoping Meetings for:
Dealer Permitting,
Coastal Migratory Pelagics 19 (now 20A), and
Coastal Migratory Pelagics 20 (now 20B)

Galveston, Texas
March 19, 2012

Council/Staff:
Patrick Riley
Emily Muehlstein

No members of the public in attendance.

Port Aransas, Texas
March 21, 2012

Council/Staff:
Doug Boyd
Emily Muehlstein

1 member of the public in attendance.

Michael Miglini – Dually Permitted Vessel Operator
Dealer Reporting
Action 1 – He likes the idea of using a single permit. For a species like shark that currently requires a class, make it clear that those requirements must be fulfilled under the universal permit.
Action 2 – He believes that people need to report and not wait to the end of the year. He supports electronic log books with a phase-in of a few months. He wants to promote a system that is easier to work with, maybe one with reminders that sends an email to remind folks to respond. He wants to see more streamlined reporting for dealers and vessels in one place, and suggests that the system merges the state and federal system so they are reporting to one or the other.
Action 3 – He says penalties may not be appropriate, larger non-compliance may be because the system is wrong.

The meeting was adjourned at 7:00 pm.

Biloxi, Mississippi
March 20, 2012

Council/Staff:
Tom McIlwain
John Froeschke

No members of the public in attendance.

Mobile, Alabama
March 21, 2012

Council/Staff:
Bob Shipp
John Froeschke

No members of the public in attendance.

Destin, FL
March 22, 2012

Council and Staff
Pamela Dana
John Froeschke

The meeting was convened at 6:00 p.m. and the opening statement was read, followed by a presentation. Sixteen members of the public were present, and 11 people gave testimony about actions being considered in Amendments 19 and 20 to the Coastal Migratory Pelagic Fishery Management Plan. Several stakeholders spoke in opposition to changes being considered for management of cobia; they felt management measures already in place were adequate. Several people also provided testimony about the potential changes in king mackerel management. While there was general agreement about problems (i.e., fishers coming from other regions, allowable harvest being caught prior to fishers having access to them in all regions of the Gulf, and the harvest being under allowable limits in some regions), no clear recommendation was put forth to address these issues. Some stakeholders preferred returning to an open access fishery and removing zones and sub-zones from the management plan. In contrast, another stakeholder suggested an ITQ program would better address fisherman and management objectives while protecting the stock. Zone declaration was also discussed as a measure to prevent fishers following mackerel throughout their range. However, several fishermen noted that mackerel are targeted out of small vessels and that fishers may still be able to fish multiple zones; albeit from

different vessels. They suggested this may occur because fishermen target these species from small vessels that could be moved or maintained in different regions. Nobody offered specific comment about removal of changes in zones or sub-zones and they commented that allocation information would have to be discussed prior to a recommendation.

Meeting was adjourned at 8:30 p.m.

Key West, Florida
March 26th, 2012

Council/Staff:
Bob Gill
Emily Muehlstein

5 Members of the Public in Attendance

William Niles –
King fishermen are running 70 miles for 1,250 lbs. and it's not worth it anymore. Many fish are caught when fishermen are checking lobster traps and just catching kings on the way home. Suggests a daily trip limit of at least 1,500 lbs. a day with a maximum of 3,000 lbs. in two days. The early closure of the gillnet fishery should be repaid. They worked with NOAA Fisheries to report every day and it punished them. They closed the fishery because no one was going to be tracking it over the weekend. It shut the season down prematurely, and it should have just been put on hold.

Every year there are 7 miles of mackerel off the shore of the keys and the fishermen here can't touch them. Once the fish migrate to Mexico they are all caught. What the quota is to day he has caught in one year. With the amount of fish that are out there, it's a shame that we don't raise the quota.

Amendment 19
Action 2 – Does not agree with the sale of recreational fish and its addition to the commercial quota. He has seen 100,000 pounds come in from recreational sales after the commercial quota is closed. It reflects poorly on the commercial fishermen, because they are not responsible for the overrun.
Action 3 – Fishermen should not have to buy two permits to renew one, and there should be no landings requirement to renew.

Rob Harris – FKCFA Charter for Hire Captain
We need to move forward on considering a South Florida management plan. South Atlantic made no mention of this meeting although the amendments discuss some South Atlantic specific questions.

Amendment 19
Action 1 – There should be a permit for cobia just to help identify who is selling the fish and narrow it down using stamps or something similar.
Action 2 – Recreational fishermen should not be selling fish. Down here, charter-for-hire fishermen selling their catch should be given a control date to phase out sales so that they can adjust their business model. Maybe grandfather in current permits and then when they are transferred, the sale of recreationally caught fish will be eliminated. Limiting the sale only serves to increase the import of fish.
Action 4 – Why have both federal and state limits?
Action 5 – There must be some type of transit requirement.
Action 6 – There should be a Spanish mackerel endorsement just to identify who is in the fishery. Don't even consider the idea of requiring two permits for renewal of one.

Dealer Reporting
It should not be so difficult to count fish and report. Last year in the South Atlantic there was a potential overrun from the Grouper ACL and using a simple computer program could track that for you in real time.
Action 1 – If there was one blanket permit, what would stop someone from catching fish in one place and transiting it to another where he will get a better price? How will that affect the zones?
Action 2 – There is no reason that we shouldn't have all the reports tallied at one time.
Action 3 – There is no need for a phase in at all.

Daniel Padron – FKCFA
Amendment 19
Action 1 –Cobia are not very important and are bycatch, if anything. Permits are not necessary because no one targets cobia.
Action 2 – recreational fish should not be sold at all.
Action 3 – Eliminate latent king gillnet permits. Leave king mackerel hook and line permits alone.
Action 6 – Spanish mackerel gillnet endorsement is not necessary because they can't catch the quota as it is, so it would only add more restriction and more paperwork.

Amendment 20
Action 1 – Move the zone east (Alternative 2) to limit the people who can jump around and sell fish whenever they feel like it.
Actions 4 and 5 – Zone declaration is unnecessary.

Dealer Reporting
The requirements should be more restrictive to avoid overruns.
Action 1 – He is against the idea of splitting one universal permit in the Gulf and one in the Atlantic. It would be an added cost to fishermen.
Action 2 – Use electronic reporting. Maybe with quotas require weekly reporting and as the quota is almost caught, then change reporting to daily until the quota is caught.

George Niles – Gulf CMP Advisory Panel
He went to a meeting 3 years ago in NOLA and the advisory panel recommended that the quota increase to 13 million pounds. The science said it could increase to 17 million pounds. It is ridiculous that the quota has not increased, even using 5-year old science that showed the quota could increase. It's time to follow the science and give a raise in the quota. It is a healthy fishery, and he has been a participant in this fishery for a long time. It is ridiculous because he was promised in the early 1980s bite the bullet now and when it gets better you'll get your fish back. He wants his fish back like he was promised. If you want fishermen to continue to participate, then you have to give them a little bit. He wants it back and he has waited a long time.

As far as regional quotas – trip limits – he has a hook and line endorsement and then the trip limit decreased to 500 lbs. when we reached 75% of the quota. There are massive schools of kingfish 70 miles away (140 round trip) plus trolling round trip, upwards of 200 miles. 250 gallons at fuel at $4.50/ gallon. Increase the daily trip limit and the change to 500 pounds is a joke. Increase reporting, don't decrease trip limits. Fishermen are catching 1,200 lbs. in 2 hours while they are checking their traps. Allow a 2-day bag limit of 3,000 lbs. Increase the trip limit somehow.

<u>Amendment 19</u>
Wonders why he can't transfer his hook and line kingfish permit to his larger boat that currently has his gillnet endorsement. It's not safe for him to take the small boat and he wants to solve this problem.
Action 1 – Don't create a commercial cobia permit.
Action 2 – He is against recreational sale of fish. Keep it simple for law enforcement and limit sale across the board.
Action 3 – The gillnet fishery has had 3 or 4 meetings asking to do away with the permits. He suggests the Council work with Bill Kelly to crunch the numbers regarding the landings etc. used to qualify. None has asked to get rid of any of the kingfish hook and line permits in the area. If the Council chooses to use a qualification, be very low in your landings requirements. Spanish mackerel are dying of old age. Please don't limit the number of fishermen in the Spanish mackerel fishery.
Action 4 – He is worried that, because the state has eliminated the use of nets, would he not be allowed to use nets in federal waters? Otherwise he is all for using the most restrictive of the regulations as long as he can still net fish.
Action 5 – He supports a more restrictive income requirement, if anything. Keep commercial fishermen fishing and do not eliminate the requirement.
Action 6 – He sees no reason to have an endorsement. Limiting the number of gillnetters is an attempt to increase the price of Spanish mackerel to make it more feasible economically to fish for them. There are way too many out there as is. Just more paperwork for nothing.

<u>Amendment 20</u>
Action 1 – Move the boundary more east (Alternative 2). Move away from the state line because people cross over and fish on whatever side is open.
Action 2 – Follow what the fishermen want in that area. Take into consideration when spawning occurs.

Action 3 – Council should establish a transit provision.
Actions 4 and 5 – King mackerel zone identification is fine. Traditionally, people have followed mackerel around but that was before there were separate zones. He thinks it is not fair for home zone fishermen. Each fisherman should only be allowed to fish in one zone.
Action 6 – Go ahead and separate it by state based on historical catch record in the South Atlantic.
Action 7 – Establish by historical catch is fine.

Dealer Reporting
Streamline the reporting as much as possible, but don't mess with the fishermen reporting requirements.
Action 2 – Reporting definitely needs to be quicker than a month. Maybe weekly in the gulf mackerel hand line.

Bill Kelly – President: FKCFA
Amendment 19
Action 2 – There should be no sale of recreationally caught fish. He has problems with how the Council is approaching this based on double counting. That does not justify the action that the Councils are trying to take. The reality is that for-hire fishermen have more in common with the commercial than they do with the private recreational because of their permit requirements, etc. There should be a better justification for limiting the sale of recreational fish beyond the double counting. He does not support the sale of private recreationally caught fish, but believes the for-hire industry should be allowed to sell their fish with appropriate licensing.
Action 3 – 23 gillnet endorsements currently exist. In 2010 they asked the Councils to eliminate latent permits. In the 2010 season the quota was overrun and they initiated an aggressive reporting program to avoid an overrun. The latent permits have the ability to trigger accountability measures and he asks that the Councils eliminate latent permits.
Hook and line fishery – These guys used to fish closer to shore, so the trip limits need to be increased over 1,250 lbs. a day because they have to travel 70 miles or so. Please consider raising it to 3,000 lbs. with no reduction when the quota is 75% filled.
Reporting requirements must be established on both sides of the coin because the fishery was closed early this year and 84,000 pounds were left in the quota after the season was closed. There can be problems on both sides, and asked if there is some way to address underages of quota.

The meeting was adjourned at 8:00pm

Fort Myers, Florida
March 28, 2012

Council/Staff:
Bob Gill
Emily Muehlstein

20 members of the public in attendance:

Nicholas Hill – King Mackerel Commercial fisherman
These potential changes should not be considered until the stock assessment is completed because new information such as models that consider the interbreeding of stocks are not included in current populations estimates.

Amendment 19
He thinks there needs to be less kingfish permits because if you divide the Annual Catch Limit by the number of permits, that would allow for about 5,000 lbs. of kingfish per permit per year.
Action 1 – Do not create a cobia permit. There needs to be a better stock assessment before there are decisions made regarding cobia.
Action 2 – If you don't have a license you shouldn't be able to sell fish from a recreational bag limit.
Action 3 – Eliminate the entire gillnet sector. To eliminate some hook and line permits by requiring that 20,000 lbs. were caught in at least one of the last 3 years. He also supports requiring fishermen to have two kingfish permits for one at the time of transfer.
Action 4 – No action on federal regulatory compliance.
Action 6 – No action, do not create Spanish mackerel endorsements.

Amendment 20
He believes fishing from the east coast has happened since the 70's, and the same number has been doing it all along. The number of permits should be reduced, but where people fish shouldn't be limited.
Action 1 – Leave the boundaries alone; wait for the science.
Action 2 – Western zone opening is fine at July 1.
Actions 4 and 5 – No action – no zone identification is necessary because it's a pelagic fish. If there is a red tide or something that makes you not be able to fish your home waters, you need to be allowed to move.
Action 6 – Do not create more zones.

Dealer Reporting Amendment
Dealers should report online or by fax. When you get to 75% of the quota, reporting should occur daily.

James Turner – Commercial kingfish fisherman
He travels over to the Western Gulf. He would like almost everything to be left alone and kept the same on Amendments 19 and 20.

Amendment 20
Action 2 – He does not want the season to be shifted because fishermen in the west want to start the season later because they are shrimping at the current season date. Actions 4 and 5 – He does not want zone identification to become necessary because it would limit him from fishing in different zones and that's how he makes a living.

Dealer Reporting Amendment
He believes reporting should be required daily after 75% of the quota is reached.

Timothy O'Malley – Veteran King Mackerel fisherman
Amendment 20
Action 2 – The season needs to stay the same in the western Gulf because the fishermen over there are multi-species fishermen.
Actions 4 and 5 – He does not want to have to declare zones because he travels. There are only charter folks in Fort Walton where he lives now and that's why the quota isn't caught. The only king fishermen are the ones that travel. Leave the zones like they are, take away charter fishermen's ability to fish both charter and commercial. There are too many permits and some need to be eliminated. There are a ton of guys going out catching 400 lbs. a day just for beer money and it takes away his business.

Richard Sergent –
Agrees with the gentlemen above.

Dan Cane –
Fishing since 1983, wanted to king fish but there were none because of the drift net fishery. He has been chasing kingfish for 20 years.

Amendment 19
There are too many king fishermen and not enough quota. King mackerel should be commercial only, at least give them 55% of the quota to accommodate the giant fleet that has been created. The charter fishermen and part time fishermen should not be allowed dual permit.
Action 5 – 75% of your income should be required to be a commercial fishermen, the 10% income requirement is not fair because it allows sport fishermen to sell mackerel.

Amendment 20
Action 1 – When he got to the panhandle it was like winning the lottery there were no king fishermen and the Sept.-Nov. offshore winds push the fish in close. Now there is a new fleet of little boats fishing. Since the fleet has increased, the quota needs to increase.
Action 2 – If the western Gulf zone time changes, all the fish are going to flood the market at one time and the price of fish will be 40 cents.
Actions 4 and 5 – The only reason he is successful as a kingfisher is because he travels. The declaration of zones is a terrible idea. He should be free to fish wherever he wants and the Council should not limit him.

Don Lamb –
Amendment 19
Action 2 – The tournament fish are being put on the commercial quota and should instead be counted against the recreational quota because there are lots of big fish and weight put on the quota, also the fish are of poor quality.
Action 3 – Two-for-one permit transfer is a great idea and they hope it happens to reduce the number of fishermen.

Amendment 20
Actions 4 and 5 – Picking zones at the beginning of the season is a terrible idea and will put people out of business. If they could fish from home all year they would love that, but you can't make a limit that way.

Mason Bowen – Lives in Sebastian, Florida and has fished king mackerel since 1979
Amendment 20
Zones and sectors don't work. If you close a sector where people are trying to make a living it will shift their effort. King Mackerel move with water temperature and food resource, but it's impossible to determine when that stock of fish is going to be in any place at any time.
Actions 4 and 5 – It's hard when Gulf fishermen think that they don't have the right to follow the fish into the Gulf because the Gulf and Atlantic Stock is split so that half the year the fish near his home are considered to be Gulf stock. He believes his Coastal Migratory Pelagic permit gives him the right to fish and the Gulf Council should not decide on any action that would prevent him from making a living by traveling with the migratory fish stock.

Gary Robinson –
Amendment 19
Action 3 – He wants the Council to get rid of latent permits and limit participation. He would like to see two-for-one transfer to occur for active king mackerel permits. He wants valid permits to have been fished in the last 3 years with a possible hardship clause.
Action 5 – Add an option requiring 75% earned income to renew. If you don't use your permit, lose your permit. No sale of recreational caught King mackerel across the board. The career king fishermen have to fish less because of all the part timers that catch kings to supplement their sport fishing.

Jack Robinson – Veteran Commercial King Mackerel Fisherman
Amendment 19
Since the recreational quota has not been filled in the Gulf, some of it should be given to the commercial fishermen in the panhandle.
Action 2 – The recreational sale of fish should be limited.
Action 3 – Get rid of gillnetters altogether. Requiring two-for-one for kingfish permits should happen at the time of transfer.

Amendment 20
Action 1 – Don't change the boundaries.
Action 2 – Don't change the season opening.
Action 3 – He supports the creation of a transit provision.

Barret Colby – King fishermen since the 80's
He does not want zone identification to be a requirement. The fishermen should be regulated less and the fish should be what are regulated. Latent permits need to be eliminated even before the two-for-one transfer happens. Before any drastic changes are made, there needs to be a full stock assessment. The biology has to be known before regulations are made on the fishermen. It is much better to catch fish hook and line than in the net fishery. He wants a 10-year buyback

program where the fishermen in the net fishery don't fish them. Eliminate that system fairly by compensating the fishermen that are currently fishing. It's not an economically sound way to fish and would be better to catch them hook and line. There should be no recreational sale of fish. Dealer reporting should be done as fast as possible.

Neal Adams – 5th generation commercial fisherman

Amendment 19

Action 1 –There is no need for a cobia permit. If anything, link it with existing Spanish, king, or dolphin permits.
Action 2 – There should be no sale of recreationally caught fish. Tournament fish can be sold under their own ACL taken from the recreational allocation.
Action 4 – The Council should not require regulatory compliance.
Action 5 –Don't change the current income requirements.
Action 6 – The gillnet fishery has never caught the quota too quickly, so the issue should be taken off the table.

Amendment 20

Action 1 –The northeast Gulf zone quota should be raised to be the same as the quota in the Florida Keys. Boarder changes should be tabled because they are not necessary.
Action 2 – Opening date should not be changed.
Action 3 – Transit off Monroe County should be allowed
Actions 4 and 5 – Zone identification should not be required. A lot of the fishermen are migratory and fishermen should not be limited.
Action 6 – No state or regional quotas should be created.

Dealer Reporting

Action 2 – All reporting should be electronic and the fishermen should have an electronic reporting option as well so that they can fill out an electronic log books. That would make both ends of the reporting process easier.

Van Hubbard – Commercial fisherman since 1970

He was run out of gillnet fishing and was very active in kingfish, but started a charter business in 1976. He can't depend on just his charter to make a living. In 1986 when kingfish were shut down completely, he bought a 24' boat to kingfish in. He has been active in commercial fishing and does not want to travel. He only caught fish in 2010 and 2011 because the quota wasn't filled after the oil spill. We need a larger Annual Catch Limit. The fishermen in Naples and Fort Myers have not been able to fish when the fish are there.

Amendment 19

Action 3 – The gillnetters need to be retrained or eliminated because the fish are worth 3 times as much when caught hook and line. Have to protect the current and traditional fishermen.
Action 5 – There should be a landings requirement of at least 25% or could increase to 50%, a tax return should be required.

Mike McMantis –
Agrees with what everyone says.

Ronnie Houck – Commercial fisherman / South Atlantic Council Advisory Panel Member

Amendment 19
Action 6 – He does not think there needs to be an endorsement on the Spanish mackerel gillnet.

Kenner, Louisiana
April 2, 2012

Council/Staff:
Harlon Pierce
Emily Muehlstein

No members of the public in attendance.

Grand Isle, Louisiana
April 3, 2012

Council/Staff:
Myron Fischer
Emily Muehlstein

17 members of the public in attendance

Scott Perrin –
Mackerel 19
Action 1 – Link a commercial cobia permit to a mackerel permit and increase the trip limit.
Action 5 – Make the income requirement 40% to eliminate part time fishermen in the mackerel fishery.

Mackerel 20
Action 1 – Move the east/west zone to the east. The king mackerel trip limit is fine at 2500- 3000 pounds.
Actions 4 and 5 – When you renew your license, declare what zone you want to fish in. Where you are going to fish can't be based on residence because it would be easy to get around; fishermen could use their wife's name and declare residence somewhere else.

Logan J Galliano –
The main problem is that the entire quota is too small and finishes too early.

Mackerel 19
Action 5 – Make the income requirement 50%.

Mackerel 20
Actions 4 and 5 – He would like to see zone identification.

Mickey Readenour –
Mackerel 19
Action 1 – Create a cobia permit depending on how strong the population is, don't damage the stock but raise the ACL if you can.
Action 2 – Sale of fish should be for commercial fishermen.
Action 3 – Down in Florida there are so many folks with mackerel permits that are not even part timers, and he wouldn't mind it be taken from the low landings fishermen.
Action 4 – Federal regulatory requirements would harm the fishermen who rely on the king mackerel at the end of the season.
Action 5 – It's hard to make all your money commercial fishermen but he would like the bulk of his income to come from commercial fishing.

Mackerel 20
Action 1 – Leave the east/west boundary. The northern zone was not fair when it was created. Let the fishermen who fish there to decide what they want.

Action 2 – July 1st opening date was done when the quotas and zones were first created. In the first year there was only 480,000 lbs. of quota, and at the meeting they asked when to open the season. Trying to keep the shrimpers out of it, they asked for the season to be opened during prime shrimping time. Since then, a lot of permit holders have gone away and things have changed. The fishermen always move west to catch the fish in July, and by September the fish show up off Grand Isle and then the quota is filled. The opening date as it is has been a major disadvantage. He would rather the season open October 15.

Michael Trosi
Mackerel 19
Action 3 – Don't take away anyone's permit because there is already a moratorium to limit the number of fishermen.

Mackerel 20
Action 2 – Open the king season in September because the fish don't show up until then. They don't have eggs later in the season, so let them spawn another time by delaying the season opening.

Summary of Gulf of Mexico Public Hearings on
Coastal Migratory Pelagics Amendments 20A and 20B

D'Iberville, MS
8/5/2013

Council/Staff
Dale Diaz
Corky Perret
Ava Lasseter

7 members of the public attended.

Gary Smith: Recreational angler
The commercial fishermen he knows complain that the Council is constantly trying to downsize the fleet, which conflicts with free markets. The commercial fishermen are against that. The fish houses want to see the industry shrink. His friends have to fish under a fish house permit because they can't get their own permit. When is the Council going to make their own permits so the fishermen don't have to fish under a fish house, which controls what price they get paid? That's the reality of what the Council has created in this system. They ought to have the ability to get their own permits.

He's against removing inactive permits as he's in the insurance business and you have to be inactive sometimes. For Amendment 19 Gary supports the Gulf Council's preferred alternative (Action 2, Alternative 1); permits should be allowed to go inactive which would allow others to come in and they could get their license reactivated. The Council has increased the commercial red snapper quota but not increased the number of people who can fish it. It would scare him to depend on a fish house owner like the commercial fishermen do. His biggest concern is that fishermen not be beholden to the fish houses.

Panama City, FL
8/6/2013

Council/Staff
Pam Dana
Ryan Rindone
Ava Lasseter

2 members of the public attended.

BJ Burkett: Charter and Commercial Fisherman: Hook 'Em Up Charters
Mr. Burkett prefers an October 1 opening for the Eastern Zone, northern subzone (Amendment 20B, Action 1, Alternative 3b). He thinks the Western Zone should be reduced to a 1250 pound trip limit. He also thinks permitted vessels should be required to declare the zone in which they

want to fish. He needs his zone open when he can fish it. October would be the best time for him to fish off Panama City. Any one of the three things mentioned would help, but not all of them are necessary.

He also doesn't necessarily agree with the sale of bag limit mackerel (Amendment 20A, Action 1). He says it takes fish out of his subzone's quota.

He would also like to see a change in the commercial allocation between the zones, which would shift more of the quota to the Eastern Zone northern subzone.

Randall Akins: Charter and Commercial Fisherman
Mr. Akins is a federal Spanish mackerel permit holder. He thinks there is a problem with the distribution of information, since he did not know that he could sell bag limit caught Spanish mackerel. He also wants a chance to read the documents ahead of time, as opposed to receiving them at the meetings. In the past, he has found words like "estimated" and "probably" in reference to quantitative values- these should be exact numbers, not estimates.

Mr. Akins prefers the elimination of the income requirement for CMP permits (Amendment 20A, Action 3, Alternative 1)

Mobile, AL
8/8/2013

Council/Staff
Kevin Anson
Chris Blankenship
Ryan Rindone
Ava Lasseter

11 members of the public attended.

No comments received.

St. Petersburg, FL
8/12/2013

Council/Staff
Martha Bademan
Ryan Rindone
Ava Lasseter

8 members of the public attended.

Gary Smith: Retired FL Commercial Fisherman
Mr. Smith has been a king mackerel fisherman for 51 years. He wonders why there can't be a central zone from the Collier/Monroe County line north to Cedar Key. The Martin Luther King Day opening of net season took all those fishermen out of the fishery, and they can't get back in. Give the king mackerel increases to the FL West Coast fishermen, not the Keys. Make it a 5,000 pound trip limit for the few net boats that would fish there.

On changing the trip limit in the Eastern Zone southern subzone (Amendment 20B, Action 1), increasing the trip limit to 3,000 pounds with no reduction is going to shorten the season and drive the price down. Naples fishermen prefer the 1,250 pound trip limit, and they have to go further than the Keys fishermen. It would have to be a cold winter to push the fish down to the Tortugas.

Buddy Bradham: Recreational Fishing Alliance, Retired CFH and Commercial Fisherman
The following are preferred alternatives for CMP Amendment 20A:

- Action 1, Alternative 1- Selling recreational fish helps cover expenses for the CFH industry. Most commercial fishermen just go along with it. Why not have MRIP have an extra question to indicate whether the fish caught are going to a fish house?
- Action 2, Alternative 1- Don't eliminate permits. If the trip limit is increased to 3,000 pounds, guys who have not been fishing their permits will be able to do so again, as it will become economically feasible to go after the fish.
- Action 3, Alternative 1- Keep the income requirement to qualify for permits. It has worked in the past, and it helps to limit entry into the fishery.

The following are preferred alternatives for CMP Amendment 20B:

- Action 1, Alternative 3- For the Eastern Zone, southern subzone.
- Action 2, Alternative 1- Leave the season opening as it is.
- Action 3, Alternative 4- Allow transit through all zones.

League City, TX
8/13/2013

Council/Staff
Robin Riechers
Lance Robinson
Emily Muehlstein
Charlotte Schiaffo

21 members of the public attended.

Scott Hickman: Charter Owner/Operator

The science does not show the damage that has been done to cobia since oil spill. They have seen very few juvenile cobia and would like the Council to consider going to a 1 fish limit.

Shane Cantrell: Charter Owner/Operator
According the most recent stock assessment the cobia population is in good shape but his eyes on the water are not seeing any little cobia. He would like to see caution with the possibly of missing juvenile cobia. He does not like to lose a fish because he doesn't see the bag increase once it decreases but if it helps ensure the health of the cobia stock he would make the sacrifice.

Grand Isle, LA
8/14/2013

Council/Staff
Camp Matens
Emily Muehlstein
Charlotte Schiaffo

27 members of the public attended.

Don Comron: Commercial Fisherman - Florida
Mr. Comron agreed with participation reduction, stating he would like to reduce participation as much as possible especially on the east coast and he would like to see the reduction 2 for 1 or increasing to a 75% earned income requirement, which he considered the ideal solution. He expressed a desire to see the reduction of part-time fishing, adding that he could not make a living on the east coast of Florida and so he had to travel over to the Gulf to fish. He emphasized that he did not want to keep anyone from fishing if that is what they genuinely do for a living but he did not appreciate recreational part time fishers who made money and filled the quota at the expense of full time commercial fishermen.

Ryan Mallory: 3rd Generation Fisherman - Florida
Mr. Mallory stated that everyone should have the opportunity to fish but the problem was that there were so many people that want to work and jump on the bandwagon when the fishing is good and take away from the commercial fleet who depend on the fishery for their livelihood. He stated that some action to reduce the number of permits would be better than no action, and asked what would happen to the next generation of fishermen? He stated that if the Council went to a two for one permit reduction it would reduce the fishery and increase the cost of a permit. He noted that it costs $30-50K to get a snapper-grouper permit in the east coast before you ever catch a fish. He asked why the fishery could not just have more fish. He stated that the stocks were fine, and that mackerel fishers filled the quotas, which they would not be able to do if there was not enough stock. He wanted the quota to stay open until Lent when the fish were worth more, adding that when the price goes down its hard to make money.

Michael Sappe: 3rd Generation Fishermen: King and Spanish mackerel on 2 boats

Mr. Sappe asked why permits cannot be taken away from people who are not using them- noting that this is done in other fisheries. He noted that all these permits were taken away because they aren't being used. He added that if 1400 people were in LA catching king mackerel and they all came in with the allowed amount it would exceed the quota, and pointed out that there would need to be enough at least 30,000 pounds of fish per permit each year to satisfy them. He strongly urged limiting the permits.

Dean Blanchard: Seafood Dealer: Dean Blanchard Seafood
Mr. Blanchard stated that the regulations were causing much friction between the fishermen and urged the different stakeholders to cooperate and not argue amongst themselves. His preferences on the actions are:

For Amendment 20A Dean supports **Action 2, Alternative 1 do not eliminate inactive king mackerel permits.** On Action 3, he would rather no one be restricted from having a permit but he supports Alternative 4, Option a. **Modify Income Requirements for Gulf and South Atlantic Commercial Coastal Migratory Pelagic Permits by requiring people to earn at least 75% of their income from fishing to renew or obtain a commercial mackerel permit.** He urged that part time fishermen should not take the place of real commercial fishermen. He would rather the Council not reduce permits at all but if they had to do something then the option of a 75% of the earned income requirement should be enacted. He questioned why permits should be taken from someone, and added that the Gulf Council was funneling everyone into certain fisheries, then after so long saying this stock is overfished. He stated his opinion that the stock was overfished because the Council had created a system were commercial boats were forced to fish single species. He emphasized that there were plenty of fish in the sea, so they should be allowed to fish for them.

For Amendment 20B Actions 2 he backed the idea of having the season in the Western Zone open as late as possible (Alternative 3a).

Tim O'Malley: Commercial King Fisherman - Florida
Mr. O'Malley stated that he first came over to the area in the 70's and had been fishing every year for 25 years in the Gulf. He noted that the 500lb requirement on local fishermen made it harder for them to earn a living when several hundred recreational fishermen from the East Coast came over drinking beer and harvesting 200 pounds of quota each. He stated he has to come over from the East Coast and he had to harvest fish from LA and take those fish away from the locals. For Amendment 20A Action 3 he supported Alternative 4a and noted that if someone made 75% of their living commercial fishing then they were meeting the requirements. He added that 1400 permits were too many, suggesting that the number be reduced to 300, and noted that many of the current 1400 permits were not active. He stated that his quota in Fort Walton Beach was useless since it was so small, that it was met too quickly, and needed to be increased because the fish were plentiful in the Panhandle. For Amendment 20B he supported pushing back the season opening in September in the western zone (Action 2, Alternative 2a) and using a 2007 control date. Otherwise, he suggested not opening it because every little boat on the East coast would descend on the area because the fish could be caught within 10 miles of the beach in the Grand Isle area.

James Turner: Commercial Mackerel Fisherman - Florida
Mr. Turner testified that things were getting worse in the fishery each year. He explained that his trips had gone down from 18 per season to 10 and added that if it went any lower he would be out of business. He stated that there are more and more participants and he kept hearing the Council was going to IFQ's and that there were not going to be any new participants allowed, but there had been not any change. He supported endorsements, and a control or cut-off date of 2007 or 2010. He urged the Council to act now and quit allowing more boats to come over and harvest the fish. He added that he could not afford to come over for one week of fishing, and that the price dropped with so many people selling kingfish from three areas at the same time. In Amendment 20B, Action 2, Alternative 1 he suggested that the season opening date should be left alone so the market was not flooded, adding that if the season was opened when the fish were closer to shore it would close after a week because of all the boats coming over and the quota being quickly filled. For Amendment 20A, Action 2, Alternative 4 he supported two for one permit reduction in the king mackerel fishery. He catches his fish and he hates having to travel and have people think he is taking local fish. He urged the Council to either give them more fish or stop new fishermen.

Nick Hill: Commercial Fisherman - Florida
Mr. Hill stated that this was the 12th fishery he has been kicked out of, and that none of his permit losses were based on science. He asked why the Council was constantly changing the rules before stock assessments were done. He lamented that the Council parroted the same broken record and nobody followed the rules. For Amendment 20, Action 5 he believed that changing the framework would only make it easier to make the changes that no one wants before the science says anything. He supports Amendment 20B, Action 3, Alternative 1: if the transit rule was put into effect it would be a law enforcement nightmare. For Amendment 19, Action 3 he expressed his opinion that the only way to get a permit is by lying on the form so if you don't fish you don't qualify, adding that if you have not used it in the last 2 or 3 years then you do not need a permit. He urged the Council to be sure if limits were based on landings that the Council do something to look out for people who have new permits but have been fishing them actively.

For Amendment 20A, Action 2 – Elimination of Inactive King Mackerel Permits Nick said that if the rules currently in place- (with a qualifier on the vessel) were enforced it would eliminate a lot of fishermen. He expressed frustration that the Mackerel AP came up with various proposals which were then shot down by the International Protocol Team, ignoring the will of the fishermen. He worried that the children of fishers would not go into the fishery because there was no future in it. Action 1: He suggested that the recreational sale of fish should be counted under the recreational quota, not the commercial quota.

Al Cassagne: Commercial Fisherman
On Amendment 20A Mr. Cassagne testified that permits seemed to be an East Coast of Florida issue which followed everyone down Grand Isle. He noted that all he had ever done for a living was to fish and that there did not use to be so many people in the area fishing for mackerel. He added that he had lost his right to some permits as well and does not want to lose another permit. He explained that he has one he doesn't use so he doesn't hurt the quota but he will sell it to someone who wants to fish it and then there will be more people harvesting the permit. He did

not have a solution but he does not want his permit to be eliminated and he is worried that this will become like snapper where one person who does not fish will make all the money because he owns the permits. He asked that the Council go back and set control dates/time frames so that people who have not fished an area historically cannot start now.

For Amendment 20B, Action 2 he supported a later opening date.

Jack Robinson: Commercial Fisherman
Mr. Robinson said that this was the 3rd time he come and made comments. For Amendment 20A he would like there to be some type of historical qualifier to eliminate permits, noting that people were getting pushed out of the different fisheries so they were turning into mackerel fishermen. For Action 3 he supported raising the earned income requirement as a good way to eliminate part-time fishermen.

For Amendment 20B Action 2 he opposed a September opening, stating that it would not be good for Texas fishermen who would not get a chance to fish and added that the price would be too low.

He suggested that the mackerel committee should be used more and it seemed that all the suggestions in the presentations were from the Council. Jack also suggested that the two Councils (S. Atlantic & Gulf) should divorce their co-management of mackerel so that it could be simplified and move faster.

Dan Kane: Commercial King Fisherman
Mr. Kane did not understand how the Council could manage the fisheries without doing the math correctly. He stated that there should only be 350 permits with the amount of quota that there is currently allowed. He noted that in 2008 the number of king fish permits almost doubled and added that mackerel needed to be a commercial fishery only. He gave his opinion that recreational fishers did not need so many fish and the commercial quota needed to be increased. He reemphasized the urgency of correct math being used to determine what needs to be done in the fishery. He stated that he lost two months of fishing on the east coast of Florida because there are so many fishermen and the fishing over there was not worthwhile, and that he lost over $200,000 because of the bad math. He stated that there were too many permits and not enough fish. He noted that there were over 50 boats from the east coast in the Grand Isle area, and that the market could only handle about 40,000 lbs a week. For Amendment 20B, Action 2 he opposed opening the season on September 1st, adding that this would cause the market to flood and the fish price to drop. He stated that there was enough room for 18 or 21 boats in the Western zone, and suggested that the Council decide how many boats can fish in each zone. He suggested going back to historical fishermen of 20 years ago. He urged the Council to figure out how to let people make a living.

Mickey Readenour: Commercial Fisherman - Grand Isle
Mr. Readenour stated that fishermen in the area have had several events that have happened in the past 10 years; hurricanes oil spills etc.; that have limited fishermen from participating in the fishery. For Amendment 20B, Action 2 he supported an October 1st opening for the Western

Gulf (Alternative 3a), adding that locals who have not been able to participate would then be allowed to because when the quota was reduced to a 3000lbs trip limit it made small boats unable to fish. He suggested a September 1st opening would be fine for Florida (Alternative 2 b & c).

Key West, FL
8/15/2013

Council/Staff
John Sanchez
Doug Gregory
Ryan Rindone

35 members of the public attended.

David Fleming: Commercial Fisherman – Naples
Mr. Fleming is opposed to the 3000 pound trip limit increase for the southern subzone (Amendment 20B, Action 1, Alternative 3b). Keep it at 1250 pounds. Remove the trip limit reduction (Action 2, Alternative 4b).

Pedro Almanza: Commercial Fisherman – Key West
At 1250 pounds, the trip limit is too low for me to make any money. He supports the 3000 pound trip limit for the southern subzone (Amendment 20B, Action 1, Alternative 3b)

Rick J. Matthews: Commercial Fisherman – Naples
Raising the trip limit to 3000 pounds would drop the price of king mackerel and shorten the season. He prefers the 1250 pound trip limit. I am not opposed to the trip limit reduction (Amendment 20B, Action 1, Alternative 1).

James Cass: Commercial Fisherman – Naples
Mr. Cass is opposed to the 3000 pound trip limit for the southern subzone (Amendment 20B, Action 1, Alternative 3b). The price would drop, the season would be too short, and he can't transport that many fish.

Patrick Purslow: Commercial Fisherman – Naples
Mr. Purslow opposed to the 3000 pound trip limit (Amendment 20B, Action 1, Alternative 3b). It has worked fine at 1250 pounds for the past 15 years. Don't fix what isn't broken. Keep the trip limit reduction. Increasing to 3000 pounds would create more problems than it would solve.

Bill Kelly: Florida Key Commercial Fishing Association
For Amendment 20A the FKCFA prefer no action on eliminating latent permits (Action 2, Alternative 1). FKCFA opposes the 2 for 1 permit reduction proposal from the South Atlantic Council (Action 2, Alternative 4). We need to create opportunity- not restrict it. We are opposed to an income requirement (Action 3, Alternative 1). We have multi-species fishermen.

For Amendment 20B FKCFA fully supports transit through closed areas from open areas (Action 3, Alternative 4). FKCFA supports increasing the trip limit in the southern subzone to 3000 pounds (Amendment 20B, Action 1, Alternative 3b). The fish stock is healthy. They are not worried about a price drop. This is an opportunity for better marketing. The current low trip limit is hamstringing opportunities. FKCFA completely oppose Action 4. They are opposed to any IFQ or catch share system. Keep the Gulf mackerel fishery catch share-free.

Josh Nicklaus: Commercial Fisherman – Key West
Mr. Nicklaus prefers the 3000 pound trip limit for the southern subzone (Amendment 20B, Action 1, Alternative 3b). It is too expensive to fish for mackerel at 1250 pounds per trip.

Billy Niles: Commercial Fisherman – Summerland Key
Mr. Niles has fished for 61 years, often at Half Moon Shoal. It's always been that the price drops when the fish hit Monroe County. He can't land fish because it is too expensive to fish with a 1250 pound trip limit. He says they need more fish. They need a 3000 pound trip limit in the southern subzone (Amendment 20B, Action 1, Alternative 3b). He is opposed to the 2 for 1 permit reduction (Amendment 20A, Action 2, Alternative 4). Charter for hire sales should be under a separate quota. The fish stocks are healthy.

Mario Torres: Commercial Fisherman – Hialeah
Mr. Torres is currently pursuing a Gulf king mackerel permit. It may not be economically feasible to fish king mackerel with a 1250 pound trip limit. He prefers the 3000 pound trip limit increase (Amendment 20B, Action 1, Alternative 3b).

Bobby Pillar: Commercial Fisherman – Summerland Key
Mr. Pillar understands the argument from the Naples fishermen. The 1250 pound trip limit came about to keep the price up. That was when diesel was 75 cents a gallon. Fuel is just too expensive these days to make any money with a 1250 pound trip limit. If they can't get a 3000 pound trip limit, traditional fishermen will be regulated out of the fishery. 1250 pounds per trip may be okay in Naples, but no fishermen are going out for kingfish in Key West at 1250 pounds. They catch their fish from December to January.

Brian Bennett: Commercial Fisherman – Key West
Mr. Bennett makes more money on kingfish than anything else. He is opposed to the 3000 pound trip limit increase (Amendment 20B, Action 1, Alternative 3b). The quota will be filled too quickly and the price will drop. The price is great right now. More boats will fish our zone with a higher trip limit.

George Niles: Commercial Fisherman – Summerland Key
In Amendment 19 do not eliminate any permits. He is against the 2-for-1 permit reduction proposed by the South Atlantic (Amendment 20A, Action 2, Alternative 4). Fuel costs are too high and trip limits are too restrictive. The current southern subzone trip limits are from a time when they had $1 diesel. There needs to be 3000 pound trip limits (Amendment 20B, Action 1, Alternative 3). He is opposed to trip limit reductions. He wants the season in the southern subzone to open on January 1. They need to be able to transit to the closest fish house to offload.

Fishermen should have to declare their zone. Fish should be reallocated from the recreational fishery to the commercial fishery.

Daniel Padron- Commercial Fisherman – Key West
Mr. Padron supports the 3000 pound trip limit for the southern subzone (Amendment 20B, Action 1, Alternative 3b). It is too expensive to fish for mackerel at 1250 pounds per trip. He is opposed to sale of bag limit caught fish. Don't eliminate permits. They need new people in the fishery. Give folks a chance to fish. He is opposed to the trip limit reduction (Amendment 20B, Action 1). He supports open transit through closed zones from open zones (Amendment 20B, Action 3, Alternative 4). He is opposed to any VMS to monitor transit.

Jason Yarborough: Commercial Fisherman – Key West
Mr. Yarborough supports the 3000 pound trip limit for the southern subzone (Amendment 20B, Action 1, Alternative 3b). Fuel is just too expensive. Only one boat landed 1250 pounds at his fish house last year. Increasing the trip limit to 3000 pounds will allow folks to fish again and make money. He is opposed to eliminating permits (Amendment 20A, Action 2, Alternative 1). They need to preserve fishing opportunities for future generations.

Eduardo Gomez: Commercial Fisherman – Key West
Mr. Gomez supports the 3000 pound trip limit for the southern subzone (Amendment 20B, Action 1, Alternative 3b). Key West is one of the most important seafood ports in Florida. With fuel costs and distance to the fish, a 1250 pound trip limit is not doable.

Eduardo Sariol: Commercial Fisherman – Key West
Mr. Sariol supports the 3000 pound trip limit for the southern subzone (Amendment 20B, Action 1, Alternative 3b). They need more fish to make money. Trip limit reductions are unnecessary. He is opposed to any VMS for monitoring transit.

Mike Pierce: Commercial Fisherman – Key West
Mr. Pierce supports the 3000 pound trip limit for the southern subzone (Amendment 20B, Action 1, Alternative 3b). He is opposed to the trip limit reduction. Fuel is too expensive to make 1250 pounds economically doable.

Juan Blanco: Commercial Fisherman – Key West
Boats used to be loaded with fish. They don't need quotas. More fish coming in means more fish to sell. He supports the 3000 pound trip limit for the southern subzone (Amendment 20B, Action 1, Alternative 3b). He is opposed to the trip limit reduction. He sees fishermen breaking the law all the time. Fuel is too expensive, and you have to support your mates. He just wants to work. He is opposed to the 2 for 1 permit reduction (Amendment 19, Action 2, Alternative 4). They can still sell the fish. The most they get is $2, then it drops to about $1.

Yordy Martinez: Commercial Fisherman – Key West
Speaking for: Himself, and Alberto and Carlos Martinez

Mr. Martinez supports the 3000 pound trip limit for the southern subzone (Amendment 20B, Action 1, Alternative 3b). He wants his son to be a fisherman. The regulations make fishing hard. He is opposed to the trip limit reductions and VMS.

Marco Herrera: Commercial Fisherman – Key West
Mr. Herrera is a multispecies fisherman. He supports the 3000 pound trip limit for the southern subzone (Amendment 20B, Action 1, Alternative 3b). The Council needs to give something back to the fishermen. Give the commercial sector some of the recreational quota.

Jose Blanco: Commercial Fisherman – (No Location Given)
Mr. Blanco has been fishing in Naples and Tampa. He's seen Naples fishermen catching four days' worth of trip limits, and then sell them at Naples fish houses. They are in 43' and 39' boats. They are selling 6000 pounds of fish at a time. They are hurting everyone.

Nicholas DeMauro: Commercial Fisherman – Sugarloaf Key
Mr. DeMauro fishes for snapper/grouper and kingfish. He needs a 250 pound bycatch permit for the charter for hire industry.

Omar Manso: Commercial Fisherman – Miami
Mr. Manso supports the 3000 pound trip limit for the southern subzone (Amendment 20B, Action 1, Alternative 3b). Fuel costs and distance are just too great for 1250 pounds.

Tom Marvel: Commercial Fisherman – Naples
Mr. Marvel travels for kingfish. Maintain the trip limit at 1250 pounds (Action 1, Alternative 1). The season would be too short at 3000 pounds. The price of fish would be too low. Collier County fishermen would suffer; they rely on the spring fish. They have to fish for multiple species. At 3000 pounds, no one will catch more fish. With unlimited transit, more folks will travel. For Amendment 20A, he prefers Action 1 Alternative 3b. Action 2 Alternative 1, and Action 3 Alternative 2. For Amendment 20B, he prefers Action 1 Alternative 4c and Action 2 Alternative 1.

Randy Wamble: Commercial Fisherman – Naples
Mr. Wamble has to run long distances for fish. He has tailored his business for 1250 pound trip limits. 3000 pounds is no good (Amendment 20B, Action 1, Alternative 3b). The price and season would drop, and effort would increase. He opposes the 500 pound reduction.

Johnny Brown: Commercial Fisherman – Naples
Mr. Brown opposes the 3000 pound trip limit increase (Amendment 20B, Action 1, Alternative 3b). 95% of his income is from king mackerel fishing. He fishes alone. He only has 1900 pounds of grouper allocation. He needs the 1250 pound kingfish trip limit to keep the season long and the price up. The 500 pound reduction is not needed. He obeys the rules and does not want to be punished.

Rick Matthews, Sr.: Commercial Fisherman – Naples
Mr. Matthews is a multispecies fisherman. The net ban hurt. He got into stone crab, sharks, and grouper. Now he only fishes stone crabs and king mackerel. He opposes the 3000 pound trip limit because the season will drop (Amendment 20B, Action 1, Alternative 3b). The 500 pound trip limit reduction is not needed. He would rather spend more time fishing than have a higher trip limit.

https://docs.google.com/spreadsheet/ccc?key=0AhC1wo3e6k8TdC1KUk9VNjA5aWVwRUtiazNYYkxqRUE#gid=0

SOUTH ATLANTIC SCOPING RESULTS FOR THE COMPREHENSIVE ACL AMENDMENT/CMP FMP AMEDMENT
JANUARY/FEBRUARY 2009

The SAFMC conducted 5 scoping meetings from North Carolina through Florida in late January and early February 2009. The scoping document is attached and at that time the CMP actions were to be included in the SAFMC's Comprehensive ACL Amendment. After scoping, the SAFMC determined that a Joint SAFMC/GMFMC CMP Amendment was the best approach. This became Amendment 18 to the CMP FMP.

Summary of Comments at Scoping Meetings:

Audio files of these comments are available from the SAFMC Office:
1. Brock Anderson – charter fishing
- Regulations putting fishermen out of business
- Any ACL modification that jeopardizes businesses and jobs should not be implemented
- Revisit in 2-3 years with better economic conditions & better data

2. Mr. Carney – recreational
- Object to any restriction to the public's fishing while there is a commercial fishery

3. Robin Curry – recreational
- Object to any restriction to the public's fishing while there is a commercial fishery
- Limits are being placed on recreational because we have a smaller voice

4. Leslie Davis – headboat
- Headboat & charterboat provide good data with daily catch records
- Private recreational – hard to get accurate data
- If cut back on fishing much more, we can't fish and you will get less data
- Would support separate allocations for the for-hire sector as long as the allocation allows
- us to fish

5. Sera Drevenak – PEW

- Should have control rules for ABC, ACL & ACT (if specified); account for scientific &
- management uncertainty
- AMs should be included and should specify closing the fishery if ACL exceeded
- Ecosystem Component Species (ECS) – don't support removing species; should be
- designated as ECS and should be exempt from 2011 deadline and requirements for
- ACL/AM
- National Standard 1 requires the Council account for all sources of mortality including
- discards and requires including as many species as possible in management

6. Joshua Giordano

- Supports the ACL Amendment
- Council should work with SSC to base ACLs on the best available science

7. Dave Hagan

- Recreational catch that is sold is counting against the commercial quota and they should
- have all the necessary permits and safety gear that commercial are required to have
- If you have a quota and close the fishery when quota is met on commercial side, then do
- the same thing on the recreational said because you don't now

8. Capt. Wendel Harper – charterboat

- Water temperature is a big factor for CMP species, much more so than for snapper
- grouper species; need to correlate abundance and catches with water temperature
- The CMP species are a big fishery in Georgia and if you lower the limits, this will hurt
- the charterboat sector
- Agree with allocations by sector and can see having 3 sectors

9. David Heil - recreational

- The recreational fishery is 5-10 times more valuable than the commercial fishery
- Object to any restriction to the public's fishing while there is a commercial fishery

10. Beck Hogan – for-hire

- We fish 200-225 days per year and if you put observers on our boat(s) you would collect
- lots of good data; lack of data due to funding hurts us all
- Support ACLs, ACTs, & AMs but this is a huge undertaking with all the species involved
- Support sector allocations and would support 3 sectors but need to look at percentages
- and not 50% being allocated to the commercial sector

11. Daniel Kane – commercial

- Ban live wells if you want to end overfishing
- We must be able to fish king mackerel in March on the Florida east coast; 15-20 years
- ago we fished under a 1,000 pound trip limit but we asked the Council to reduce that to a
- 50 fish trip limit to stretch out the season and prevent overfishing

- Now with so many fishermen the fishery is closed during Lent when we get the best price
- The commercial sector is being punished for rebuilding the stocks; we must have March
- open to us to be able to fish
- Supports no closure with the 50 king mackerel/day limit

12. Bill Kelly – Islamorada Charterboat Association
    - Support ACLs but concerned about accurate data especially MRFSS
    - MRIP should improve the data
    - The for-hire sector in Monroe County is supportive of electronic reporting

13. Jack Riedel – recreational
    - Object to any restriction to the public's fishing while there is a commercial fishery

14. Kelly Schoolcraft – commercial
    - ACLs/TACs for king mackerel should be allocated on a state by state basis based on
    - historical landings
    - The state by state quotas should be applied to all fisheries

15. Donald Seib -
    - Need to speed up data collection by moving to electronic reporting
    - Give fishermen an excel form/file and have them fill in the items that don't change and
    - only fill in the information that changes on a trip basis; they could then print and mail or
    - better yet email to NMFS similar to how income tax returns
    - Don't understand why NMFS is so behind the times with reporting of fishery statistics

16. Richard Stiglitz – commercial
    - Need better data on recreational fishery
    - Need more regional fishery management

17. Mr. Wren – charterboat
    - Concerned about closures based on existing data
    - Support better data and willing to fill out logbooks

18. David Heil – recreational
    - Object to any restriction to the public's fishing while there is a commercial fishery

South Atlantic
August 2013
South Atlantic Public Hearing Comments
Joint CMP Amendment 20B

Dates and Locations

August 5, 2013
Richmond Hill City Center
520 Cedar Street

Richmond Hill, GA 31324

August 6, 2013
Jacksonville Marriott
4670 Salisbury Road
Jacksonville, FL 32256

August 7, 2013
Doubletree Hotel
2080 N. Atlantic Avenue
Cocoa Beach, Florida 32931

August 8, 2013
Hilton Key Largo Resort
97000 South Overseas Highway
Key Largo, Florida 33037

August 13, 2013
Hilton Garden Inn Airport
5265 International Boulevard
North Charleston, SC 29418

August 14, 2013
Double Tree by Hilton Wilmington
4727 Concord Pike
Wilmington, DE 19803

August 15, 2013
Bridgepoint Hotel
101 Howell Road
New Bern, NC 28582

4 individuals provided public comment at the hearings.
3 individuals provided written comments.

Action 1- H&L trip limits for Gulf king mackerel

- One commenter supported Alternative 4 (1,250 lbs with no reduction).
- Two commenters supported no action.
- Two commenters supported a 3,000 lb trip limit. The commenter also noted that this could affect the number of inactive permits by making trips more efficient.
- One commenter supported Alternative 3c (3,000 lbs with no reduction in the Eastern Zone Southern Subzone) and 4b (1,250 lbs with no reduction in the Eastern Zone Northern Subzone

Action 2- fishing seasons for Gulf king mackerel

- Two commenters supported no action. One commenter stated that changes in the fishing years will hurt the Atlantic fishermen's market.
- One commenter supported Alternative 2 (change the season to Sept 1- Aug 1).

Action 3- provision to transit through closed king mackerel zones

- All 5 commenters supported a transit provision.

Action 4.1 and 4.2- regional allocation of Atlantic group king mackerel and Spanish mackerel

- One commenter supported Alternative 2, Option D, to give North Carolina the quota they have been requesting.
- Two commenters supported no action.

Action 5- framework procedure modification

- Two commenters supported Preferred Alternative 2.
- One commenter also supported Preferred Alternatives 4 and 5.

Action 6- cobia ACL/ACT

- Three commenters supported the Preferred Alternative 3 and Preferred Option D.

APPENDIX D. BYCATCH PRACTICABILITY ANALYSIS (BPA)

Population Effects for the Bycatch Species

Background
Amendment 20B to the Fishery Management Plan for Coastal Migratory (CMP) Resources in the gulf and South Atlantic Region (FMP) includes actions that consider modifying the commercial hook-and-line trip limits for Gulf migratory group king mackerel, changing the fishing season for Gulf migratory group king mackerel for the Eastern Zone subzones, establishing transit provisions for travel through areas that are closed to king mackerel fishing, establishing regional annual catch limits (ACLs) for Atlantic migratory group king and Spanish mackerel, modifying the framework procedure, and modifying the Gulf and Atlantic migratory group cobia ACLs and annual catch targets (ACTs).

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

Commercial Sector
Currently, discard data are collected using a supplemental form that is sent to a 20% stratified random sample of the active permit holders in CMP fishery. However, in the absence of any observer data, there are concerns about the accuracy of logbook data in collecting bycatch information. Biases associated with logbooks primarily result from inaccuracy in reporting of species that are caught in large numbers or are of little economic interest (particularly of bycatch species), and from low compliance rates. During 2008-2012, the commercial sector for CMP species in both the Gulf and Atlantic landed 11,714,560 lbs whole weight (ww) and discarded 44,035 lbs ww (Table 1). The commercial sector predominantly harvested king and Spanish mackerel, with relatively few cobia (Table 1).

Recreational Sector
For the recreational sector, during 2008-2012, estimates of the number of recreational discards were available from Marine Recreational Fisheries Statistical Survey (MRFSS) and the National Marine Fisheries Service (NMFS) headboat survey. The MRFSS system classifies recreational catch into three categories:

- Type A - Fishes that were caught, landed whole, and available for identification and enumeration by the interviewers.

- Type B - Fishes that were caught but were either not kept or not available for identification:

    - Type B1 - Fishes that were caught and filleted, released dead, given away, or disposed of in some way other than Types A or B2.

    - Type B2 - Fishes that were caught and released alive.

During 2008-2012, the private recreational landings and discards for all three CMP species were higher than for either the headboat or charterboat category (Table 1). Landings and subsequent discards for the private recreational category were highest for Spanish mackerel, followed by king mackerel. Discards in the private recreational category for cobia were dis-proportionally high compared with its landings. A similar trend was seen for the charterboat category, with landings and discards for Spanish mackerel higher than king mackerel and cobia (Table 1). However, in the headboat category, landings and discards were higher for king mackerel, followed by Spanish mackerel, and cobia. Discards for each of the three species were proportionally higher in the recreational sector than in the commercial sector.

During 2008-2012, information for charter trips came from two sources. Charter vessels for the CMP fishery were selected to report by the Science and Research Director (SRD) to maintain a fishing record for each trip, or a portion of such trips as specified by the SRD, and on forms provided by the SRD. Harvest and bycatch information was monitored by MRFSS. Since 2000, a 10% sample of charter vessel captains were called weekly to obtain trip level information, such as date, fishing location, target species, etc. In addition, the standard dockside intercept data were collected from charter vessels and charter vessel clients were sampled through the standard random digital dialing of coastal households. Precision of charter vessel effort estimates has improved by more than 50% due to these changes (Van Voorhees et al. 2000).

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

Recent improvements have been made to the MRFSS program, and the program is now called the Marine Recreational Information Program (MRIP). Beginning in 2013, samples were drawn from a known universe of fishermen rather than randomly dialing coastal households. Other improvements have been and will be made that should result in better estimating recreational catches and the variances around those catch estimates.

Table 1. Mean Headboat, MRFSS, and commercial estimates of landings and discards in the Gulf of Mexico and U.S. Atlantic Ocean (Florida to New York) during 2008-2012. Headboat, MRFSS (charter and private) landings are in numbers of fish (N); commercial landings are in pounds whole weight (lbs ww). Discards represent numbers of fish that were caught and released alive (B2).

	HEADBOAT				MRFSS CHARTER				MRFSS PRIVATE				COMMERCIAL		
	Catch (N)	Landings (N)	Discards (N)	Percent Discards	Catch (N)	Landings (N)	Discards (N)	Percent Discards	Catch (N)	Landings (N)	Discards (N)	Percent Discards	Landings (lbs ww)	Discards (N)	Percent Discards
Cobia	2,393	2,393	0	0%	22,579	12,256	10,323	84%	191,018	71,916	119,102	166%	202,991	0	0%
King Mackerel	33,449	31,254	2,195	7%	182,772	153,474	29,297	19%	622,353	441,727	180,625	41%	6,380,061	42,323	<1%
Spanish Mackerel	13,454	11,997	1,458	12%	437,110	334,701	102,409	31%	5,250,479	2,708,586	2,541,893	94%	5,131,508	1,712	<1%
Total	**49,297**	**45,644**	**3,653**		**642,461**	**500,431**	**142,030**		**6,063,850**	**3,222,229**	**2,841,621**		**11,714,560**	**44,035**	

Sources: MRFSS data from SEFSC Recreational ACL Dataset (May 2013); Headboat data from SEFSC Headboat Logbook CRNF files (expanded; May 2013);

Commercial landings data from SEFSC Commercial ACL Dataset (July 10, 2013) with discard estimates from expanded SEFSC Commercial Discard Logbook (Jun 2013).

Notes: Commercial discard estimates are for vertical line gear only. Commercial king mackerel includes "king and cero mackerel" category;

Estimates of commercial discards are highly uncertain; No reported discards for Commercial and Headboat Cobia.
King mackerel, cobia, and Spanish mackerel data include both Atlantic coast and Gulf of Mexico. Note that discard estimates for commercial and headboat include only the Gulf of Mexico and SAFMC jurisdiction; discards from the Mid-Atlantic would likely be relatively low, but are not reported here.

Finfish Bycatch Mortality

Release mortality rates are unknown for most managed species. Recent Southeast Data, Assessment, and Review (SEDAR) assessments include estimates of release mortality rates based on published studies. Stock assessment reports can be found at http://www.sefsc.noaa.gov/sedar/.

SEDAR 28 (2013a, 2013b, 2013c, 2013d) assessed Spanish mackerel and cobia stocks in the South Atlantic and Gulf. The stocks were determined to be neither overfished nor undergoing overfishing. Both the Gulf and Atlantic migratory groups of king mackerel were assessed by SEDAR 16 in 2008/2009 (SEDAR 16 2009), and are being assessed again by SEDAR 38 in 2014. The SEDAR 16 (2009) assessment determined the Gulf migratory group of king mackerel was not overfished and was uncertain whether the Gulf migratory group was experiencing overfishing. Subsequent analyses showed that $F_{Current}/F_{MSY}$ has been below 1.0 since 2002. Consequently, the most likely conclusion is the Gulf migratory group king mackerel stock is not undergoing overfishing. Atlantic migratory group king mackerel were also determined not to be overfished; however, it was uncertain whether overfishing is occurring, and thought to be at a low level if it is occurring.

SEDAR 16 (2009) provided a 20% estimate of release mortality of king mackerel for the private and charter sectors and 33% release mortality for the headboat sector. For Spanish mackerel, SEDAR 17 (2008) used the following discard mortality rates: gillnets 100%, shrimp trawls 100%, trolling 98%, hook-and-line 80%, and trolling/hook-and-line combined 88%. SEDAR 28 (2013c, 2013d) recommended identical discard mortality for Spanish mackerel as 100% for gillnets and shrimp trawls, but recommended a 10% discard mortality rate for commercial handlines, and 20% for recreational handlines. For cobia, SEDAR 28 (2013a and 2013b) used a discard mortality rate of 5% for the hook-and-line gear (both commercial and recreational sectors), and 51% for gillnets. Most king mackerel and cobia are harvested using hook-and-line gear, and gillnets are the primary gear for Spanish mackerel. As shown in Table 1, discards in the commercial sector are relatively low for all three CMP species, and while discards of cobia in the private recreational sector are very high, the discard mortality rate is very low for this species using hook-and-line gear (SEDAR 28, 2013a and 2013b).

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

Bycatch information is currently being collected in the CMP fishery. The anticipated effects on bycatch mortality of target and non-target species as a result of the actions contained in Amendment 20B would depend on whether the action is decreasing fishing or increasing opportunities for harvest.

In Amendment 20B, the preferred alternative in Action 1 would establish the commercial trip limits for Gulf migratory group king mackerel at 3,000 lbs for the Western Zone and maintain the trip limit of 1,250 lbs for the Southern and Northern Subzones of the Eastern Zone, but remove the reduction at 75% of the quota. Analysis in Chapter 4 of Amendment 20B shows that the quota for each zone/subzone would have still be reached before the end of the 2012 fishing season regardless of the trip limit. Therefore, no change in overall effort, and consequently, no change to the impacts on bycatch are expected for Action 1.

Action 2 of Amendment 20B would change the fishing season for Gulf migratory group king mackerel for the Eastern Zone Northern Subzone to start in October. Moving the start date of the commercial king mackerel season later in the calendar year may result in decreased fishing pressure. This time of year corresponds with the height of hurricane season, and temporal effort reduction resulting from poor weather conditions may result in slower removal rates and a prolonged fishing season in some or all subzones. However, "bad weather days" are not anticipated to be frequent enough to result in a subzone not catching its quota. A change in the start date of the fishing year may force traveling fishers to pursue other species in the absence of an open commercial king mackerel fishing season in mid-summer months; however, this temporal shift in effort is also not anticipated to result in a subzone not catching its quota. Therefore, it is not possible to accurately predict what might happen in terms of changes in effort, but from a biological standpoint and concerning bycatch, no differences in the impacts to king mackerel are expected under Action 2.

The action alternatives of Action 3 of Amendment 20B would establish transit provisions to allow fishermen who legally harvest king mackerel from an open area to transport and land their catch in other areas that are closed. If these fishermen are more likely to fish for king mackerel if they can land in another zone, then effort could increase relative to the current regulations and the biological impacts (including bycatch) could increase.

Action 4 of Amendment 20B would establish regional quotas for Atlantic migratory group king (Action 4.1) and Spanish (Action 4.2) mackerel. Establishment of a separate quota for a Northern Zone and Southern Zone would not change the existing level of biological/ecological effects. The quota and accountability measures (AMs) provide biological protection and prevent overfishing of Atlantic migratory group king mackerel. Actions 4.1 and 4.2 would not change the level of catch (including bycatch) of Atlantic migratory group king mackerel, only how it would be distributed.

Action 5 of Amendment 20B would modify the framework procedure and is purely administrative; positive biological/ecological benefits could be expected due to greater efficiency and effectiveness of management changes.

Action 6 of Amendment 20B would modify the ACLs and ACTs for Gulf and Atlantic migratory group cobia that were originally established by CMP Amendment 18. After reviewing the SEDAR 28 stock assessments (2013a, 2013b), the Gulf of Mexico Fishery Management Council's (Gulf Council) Scientific and Statistical Committee (SSC) and South Atlantic Fishery Management Council's (South Atlantic Council) SSC recommended new acceptable biological catch (ABC) levels to their respective Councils. Under Action 6, the Gulf migratory group cobia ABC would be divided into a Gulf Zone ACL and a Florida East Coast Zone ACL (Florida/Georgia border to the Gulf and South Atlantic Council jurisdictional boundary) based on 1998-2012 (15 years) landings data. The South Atlantic ACL would equal to the SSC's ABC recommendation for the Atlantic migratory group cobia. Modifying the ACL or ACT from the current values described in CMP Amendment 18 would potentially have an impact on the biological environment if harvest changes from current levels, and AMs are triggered if the ACL or ACT is met or exceeded. Action 6 would result in an increase in the Gulf ACL as well as the South Atlantic jurisdictional ACL (North Carolina to the Florida East Coast). Because

approximately 90% of the overall harvest cobia is from the recreational sector, monitoring precision is currently not as high as with other species with higher levels of observed or otherwise independently validated landings (commercial, headboat observer programs). Consequently, any potential positive biological impacts (including bycatch and bycatch mortality) of jurisdiction-specific ACLs or ACTs may not be realized.

According to the bycatch information for mackerel gillnets, menhaden, smooth dogfish sharks, and spiny dogfish sharks were the three most frequently discarded species (SAFMC 2004). There were no interactions of sea turtles or marine mammals reported (Poffenberger 2004). The Southeast Region Current Bycatch Priorities and Implementation Plan FY04 and FY05 reported that 26 species of fish are caught as bycatch in the Gulf king mackerel gillnet sector. Of these, 34% are reported to be released dead, 59% released alive, and 6% undetermined. Bycatch was not reported for the Gulf Spanish mackerel sector. The Atlantic Spanish mackerel portion of the CMP fishery has 51 species reported as bycatch with approximately 81% reported as released alive. For the South Atlantic king mackerel portion of the CMP fishery 92.7% are reported as released alive with 6% undetermined. Bycatch was not reported separately for gillnets and hook-and-line gear. Additionally, the supplementary discard program to the logbook reporting requirement shows no interactions of gillnet gear with marine mammals or birds. Tables 2, 3, and 4 list the species most often caught with king and Spanish mackerel in the Gulf and South Atlantic from the SEFSC commercial logbook. There is very little bycatch in the Spanish mackerel component of the fishery with gillnet gear, and the king mackerel component is also associated with a low level of bycatch. Amendment 20B would not modify the gear types or fishing techniques in the mackerel segments of the CMP fishery. Therefore, bycatch and subsequent bycatch mortality in the CMP fishery is likely to remain very low if this amendment is implemented.

Table 2. Top six species caught on trips where at least one pound of Spanish mackerel was caught with gillnet gear in the Gulf of Mexico and South Atlantic for 2008 and 2012.

Species	Percent of Harvest (Gillnets Only)
Spanish mackerel	94.1%
Blue runner	2.8%
King mackerel & Cero	2.6%
Unclassified jacks	0.38%
Crevalle jack	0.09%
Black sea bass	0.02%
Sheepshead	0.01%

Source: Southeast Fisheries Science Center Commercial Logbook (June 2013)

Table 3. Top three species caught on trips where at least one pound of Spanish mackerel was caught with all gear types in the Gulf of Mexico and South Atlantic from 2008-2012.

Species	Percent of Harvest (All Gear Types)
Spanish mackerel	78%
King mackerel & Cero	15%
Blue runner	2%
Yellowtail snapper	1%

Source: Southeast Fisheries Science Center Commercial Logbook (June 2013)

Table 4. Top 10 species caught on trips where at least one pound of king-cero mackerel with all gear types in the Gulf of Mexico and in the South Atlantic from 2008-2012.

Species	Percent of Total Harvest
King mackerel & Cero	73.83%
Vermilion snapper	5.93%
Red grouper	3.10%
Red snapper	2.76%
Spanish mackerel	2.47%
Yellowtail snapper	2.14%
Greater amberjack	2.07%
Gag	1.31%
Red porgy	0.89%
Gray triggerfish	0.83%
Scamp	0.80%

Source: Southeast Fisheries Science Center Commercial Logbook (June 2013)

Additional information on fishery related actions from the past, present, and future considerations can be found in Section 4.7 (Cumulative Effects) of Amendment 20B.

Ecological Effects Due to Changes in the Bycatch

The ecological effects of bycatch mortality are the same as fishing mortality from directed fishing efforts. If not properly managed and accounted for, either form of mortality could potentially reduce stock biomass to an unsustainable level. The Gulf Council, South Atlantic Council, and NMFS are in the process of developing actions that would improve bycatch monitoring in all fisheries including the CMP fishery. For example, the Joint South Atlantic/Gulf of Mexico Generic Charter/Headboat Reporting in the South Atlantic Amendment (Charter/Headboat Amendment), which became effective on January 7, 2014, requires weekly electronic reporting of landings and bycatch data for headboats in the South Atlantic. A similar framework action to require electronic reporting of landings and bycatch by headboats in the Gulf became effective on March 5, 2014. A generic amendment that will require weekly electronic reporting of commercial landings by dealers in the Gulf and South Atlantic will be effective on August 7, 2014. The Gulf and South Atlantic Councils have approved an

amendment that would require electronic reporting of commercial logbook data, which would include landed and discarded fish. Better bycatch and discard data would provide a better understanding of the composition and magnitude of catch and bycatch, enhance the quality of data provided for stock assessments, increase the quality of assessment output, provide better estimates of interactions with protected species, and lead to better decisions regarding additional measures to reduce bycatch. Management measures that affect gear and effort for a target species can influence fishing mortality in other species. Therefore, enhanced catch and bycatch monitoring would provide better data that could be used in multi-species assessments.

Ecosystem interactions among CMP species in the marine environment are poorly known. The three species are migratory, interacting in various combinations of species groups at different levels on a seasonal basis. With the current state of knowledge, it is difficult to evaluate the potential ecosystem-wide impacts of these species interactions, or the ecosystem impacts from the limited mortality estimated to occur from mackerel fishing effort. However, there is very little bycatch in the Spanish mackerel portion of the CMP fishery with gillnet gear, and the king mackerel portion of the CMP fishery is also associated with a low level of bycatch (Tables 2, 3, and 4). Amendment 20B would not modify the gear types or fishing techniques in the CMP fishery. Therefore, ecological effects due to changes in bycatch in the CMP fishery are likely to remain very low if implemented. For more details on ecological effects, see Chapters 3 and 4 of the amendment.

Changes in the Bycatch of Other Fish Species and Resulting Population and Ecosystem Effects

Actions in Amendment 20B are not expected to affect bycatch of other non-mackerel fish species. Less than 7% of the total landings in the mackerel and cobia components of the CMP fishery are non-targeted species (Tables 2, 3, and 4**)**. As discussed in the "practicability of management measures" portion of this BPA, the actions in Amendment 20B are not expected to substantially affect bycatch of other fish species or result in population and ecosystem effects.

Effects on Marine Mammals and Birds

Under Section 118 of the Marine Mammal Protection Act (MMPA), NMFS must publish, at least annually, a List of Fisheries that places all U.S. commercial fisheries into one of three categories based on the level of incidental serious injury and mortality of marine mammals that occurs in each fishery. The 2014 List of Fisheries classifies the Gulf and South Atlantic coastal migratory pelagic hook-and-line fishery as a Category III fishery (79 FR 14418, March 14, 2014). Category III designates fisheries with a remote likelihood or no known serious injuries or mortalities. The Gulf and South Atlantic coastal migratory pelagic gillnet portion of the CMP fishery is classified as Category II fishery. This classification indicates an occasional incidental mortality or serious injury of a marine mammal stock resulting from the fishery (1-50 % annually of the potential biological removal). The gillnet portion of the CMP fishery has no documented interaction with marine mammals; NMFS classifies gillnet portion of the CMP fishery as Category II based on analogy (similar risk to marine mammals) with other gillnet fisheries.

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

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

Spanish mackerel are among the species targeted with gillnet in North Carolina state waters. Observer coverage for gillnet is up to 10% and provided by the North Carolina Division of Marine Fisheries, primarily during the fall flounder fishery in Pamlico Sound. Gillnets are also used from the North Carolina/South Carolina border and south and east of the fishery management council demarcation line between the Atlantic Ocean and the Gulf of Mexico. In this area gillnets are used to target finfish including, but not limited to king mackerel, Spanish mackerel, whiting, bluefish, pompano, spot, croaker, little tunny, bonita, jack crevalle, cobia, and striped mullet. The majority of fishing effort occurs in federal waters because South Carolina, Georgia, and Florida prohibit the use of gillnets, with limited exceptions, in state waters.

There is some observer coverage of CMP targeted trips by vessels with an active directed shark permit. The Shark Gillnet Observer Program is mandated under the Atlantic Highly Migratory Species FMP, the Atlantic Large Whale Take Reduction Plan (50 CFR Part 229.32), and the Biological Opinion for the Continued Authorization of the Atlantic Shark Fishery under Section 7 of the Endangered Species Act. Observers are deployed on any active fishing vessel reporting shark drift gillnet effort. In 2005, this program also began to observe sink gillnet fishing for sharks along the southeastern U.S. coast.

The shark gillnet observer program now covers all anchored (sink, stab, set), strike, or drift gillnet fishing by vessels that fish from Florida to North Carolina year-round. The observed fleet includes vessels with an active directed shark permit and fish with sink gillnet gear.

Changes in Fishing, Processing, Disposal, and Marketing Costs

It is likely that all states within the Gulf and South Atlantic Councils' jurisdictions would be affected by the regulations associated with actions in Amendment 20B. Under Action 3, reducing binding constraints or eliminating restrictive regulations would generally be expected to benefit fishermen and result in economic benefits. The relaxation of the transit prohibition is expected to afford fishermen more flexibility in trip planning and provide opportunities to adjust the cost structure and catch composition of king mackerel trips. However, the potential increase in king mackerel landings by these fishermen could result in the ACL being reached sooner, triggering an earlier closure of the fishery relative to status quo. Additionally, distributional effects would be expected to occur because, when a species is managed with a quota and the

quota is routinely harvested, increased harvest by some fishermen must be matched by harvest reduction for other fishermen. As a result, while some fishermen may experience a net increase in economic benefits, others may experience a reduction in economic benefits if they are not able to adapt. Overall, however, the economic effects expected to result from a relaxation of transit restrictions are anticipated to be positive because the potential increases in net revenues that would result from the added flexibility in selecting catch composition and from costs savings from lower fuel expenditures are assumed to outweigh potential adverse economic effects that could result from earlier closures.

Both Councils are considering options to enhance current data collection programs in future amendments. This might provide more insight in calculating the changes in fishing, processing, disposal, and marketing costs. See Chapter 4 of Amendment 20B for a complete description of how the CMP fishery and the species would be impacted by the proposed actions.

Changes in Fishing Practices and Behavior of Fishermen

Actions proposed in Amendment 20B could result in a modification of fishing practices by commercial and recreational fishermen. Analysis in Chapter 4 shows that the quota for each zone/subzone would still be reached before the end of the 2012 fishing season regardless of the trip limit. Therefore, no change in overall effort is expected for Action 1. The benefits of changing the fishing season for the Northern Subzone of Gulf migratory group king mackerel to start later in the season under Action 2 may be minimal due to bad weather and migratory patterns of the fish. Therefore, the fishing practices and behavior of fishermen may not change. In Action 3, transit provisions are expected to be beneficial to fishermen, dealers, and associated businesses. Allowing vessels to transit through closed areas to land fish harvested in open areas, with specifications for gear stowing, could reduce potential negative effects of unnecessary travel just to avoid closed areas to offload legally caught fish. On the other hand, there may be a trade-off in these expected benefits as they could affect harvest patterns and fishermen's behavior. For example, if some fishermen are able to make additional fishing trips as a result of the reduced travel time to offload fish, effort would increase, resulting in less fish available for other fishermen. It is reasonable to expect that the quota would thus be caught in a shorter period of time, thereby decreasing the social benefits provided by the transit provisions. Separation of the commercial ACL for king and Spanish mackerel into zones under Actions 4.1 and 4.2, respectively, would be expected to have similar social effects as sector allocations, in that there could likely be some changes in fishing behavior and impacts to fishermen, communities and businesses associated with the CMP fishery. The same would be true for separation of the cobia ACL proposed in Action 6.

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

All actions in Amendment 20B would affect some measure of change in research, administration, and enforcement costs and management effectiveness. See Chapter 4 of this amendment for more details.

Research and monitoring is ongoing to understand the effectiveness of proposed management measures and their effect on bycatch. In 1990, the SEFSC initiated a logbook program for vessels with federal permits in the snapper grouper fishery from the Gulf of Mexico and South Atlantic. In 1999, logbook reporting was initiated for vessels catching king and Spanish mackerel (Gulf and South Atlantic Councils). The Dolphin and Wahoo FMP required logbook reporting by fishermen with Commercial Atlantic Dolphin/Wahoo Permits. Approximately 20% of commercial fishermen from snapper grouper, dolphin wahoo, and CMP fisheries are asked to fill out discard information in logbooks; however, a greater percentage of fishermen could be selected with emphasis on individuals that dominate landings. Recreational discards are obtained from the MRIP and logbooks from the NMFS headboat program.

The Charter/Headboat Amendment, which became effective on January 7, 2014, requires electronic reporting for headboats each week for the snapper grouper, dolphin wahoo, and CMP fisheries in the Atlantic. A similar amendment became effective on March 5, 2014 to require weekly electronic reporting for headboats reef and CMP fisheries in the Gulf. Some observer information for the snapper grouper fishery has been provided by the SEFSC, Marine Fisheries Initiative, and Cooperative Research Programs (CRP), but more is desired for the snapper grouper, dolphin wahoo, reef fish, and CMP fisheries. An observer program is in place for headboats in the southeast for the snapper grouper, reef fish, dolphin wahoo, and CMP fisheries. Observers in the NMFS Headboat survey collect information about numbers and total weight of individual species caught, total number of passengers, total number of anglers, location fished (identified to a 10 mile by 10 mile grid), trip duration (half, ¾, full or multiday trip), species caught, and numbers of released fish with their disposition (dead or alive). The headboat survey does not collect information on encounters with protected species. At the September 2012 South Atlantic Council meeting, the SEFSC indicated that observers are placed on about 2% of the headboat trips out of South Carolina to Florida, and about 9% of the headboat trips out of North Carolina (http://www.safmc.net/LinkClick.aspx?fileticket=XGaVZzxLePY%3d&tabid=745).

Cooperative research projects between science and industry are being used to a limited extent to collect bycatch information from fisheries in the Gulf and South Atlantic. Research funds for observer programs, and gear testing and testing of electronic devices are also available each year in the form of grants from the Gulf and South Atlantic Foundation, Marine Fisheries Initiative, Saltonstall-Kennedy program, and the CRP. Efforts are made to emphasize the need for observer and logbook data in requests for proposals issued by granting agencies. A condition of funding for these projects is that data are made available to the Councils and NMFS upon completion of a study.

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

including mass stranding events and mass mortalities (http://www.sefsc.noaa.gov/species/mammals/strandings.htm).

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

Additional administrative and enforcement efforts would help to implement and enforce fishery regulations. The NMFS established the South East Fishery-Independent Survey in 2010 to strengthen fishery-independent sampling efforts in southeast U.S. waters, addressing both immediate and long-term fishery-independent data needs, with an overarching goal of improving fishery-independent data utility for stock assessments. Meeting these data needs is critical to improving scientific advice to the management process, ensuring overfishing does not occur, and successfully rebuilding overfished stocks on schedule.

Changes in the Economic, Social, or Cultural Value of Fishing Activities and Non-Consumptive Uses of Fishery Resources

Proposed management measures, and any changes in economic, social, or cultural values are discussed in Chapter 4 of Amendment 20B. Further analysis can be found in Chapter 5 (Regulatory Impact Review) and Chapter 6 (Regulatory Flexibility Act Analysis) of the amendment.

Changes in the Distribution of Benefits and Costs

The distribution of benefits and costs expected from actions in Amendment 20B are discussed in Chapters 4, 5, and 6 of the amendment.

Social Effects

The social effects of all the measures are described in detail in Chapter 4 of Amendment 20B.

Conclusion

This section evaluates the practicability of taking additional action to minimize bycatch and bycatch mortality using the ten factors provided at 50 CFR 600.350(d)(3)(i). In summary, measures proposed in Amendment 20B address issues associated with the boundaries between migratory groups, zones, and subzones; allocation of commercial quotas; and modification of the

framework procedure for management of king mackerel, Spanish mackerel, and cobia. None of the actions in this amendment are expected to significantly increase or decrease the magnitude of bycatch or bycatch mortality in the CMP fishery. Both sectors of the CMP fishery have relatively low baseline levels of bycatch, which are not expected to change as a result of implementation of this amendment. No additional action is needed to further minimize bycatch in the CMP fishery.

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APPENDIX E. DECISIONS TOOLS

Analysis of Modifying the Commercial Hook-and-Line Trip Limit for the King Mackerel Gulf Migratory Group.

Amendment 20B to the Fishery Management Plan for Coastal Migratory Pelagics Resources of the Gulf of Mexico and South Atlantic proposes management changes to the king mackerel Gulf Migratory group. Action 1 of the amendment proposes changes to the hook-and-line trip limits of the Western Zone, Eastern Zone - Northern Subzone, and Eastern Zone - Southern Subzone. The alternatives presented for Action 1 in Amendment 20B propose reductions in the current trip limit of the Western Zone from the current trip limit of 3,000 lbs to 1,250 or 2,000, lbs. The alternatives increase the trip limit of the Eastern Zone - Northern Subzone and the Eastern Zone - Southern Subzone from 1,250 pounds to, 2,000 or 3,000 lbs. These actions were evaluated to determine their impact on landings and to provide predictions on when ACLs for each zone would be met.

The first step in the analysis was to review the available data. King mackerel hook-and-line landings data from the Coastal Fisheries Logbook Program (logbook) for each zone were examined in two ways: (1) by area fished; and (2) by state and county where the landings were reported. Each data sorting method has advantages and disadvantages. The area fished provides the location on the water where the fish were caught, but the area fished boundaries do not align with the state and county boundaries used to define king mackerel management zones. Summarizing the landings by area fished presents the possibility that landings caught at sea from one king mackerel zone could be incorrectly assigned to a different king mackerel zone. Using the state and county of landings allows alignment with the zone boundaries but there is a possibility that fishermen may enter a zone to fish but then travel to a different zone to land their catch. Thus, exploration of landings from both data sorting methods is warranted to see if they produce significantly different landing estimates.

During the past three king mackerel fishing years (2009/2010, 2010/2011, and 2011/2012) king mackerel commercial fishing zones were closed early because ACLs were met before the full 12 months of the fishing year were completed. Closures varied by zone. Additionally, the Eastern Zone - Northern Subzone and the Eastern Zone - Southern Subzone have their trip limits reduced from 1,250 to 500 pounds when landings reach 75% of the quota in some of the years. The Eastern Zone - Northern Subzone had the trip limit reduced in the 2010/2011 fishing year on October 26, 2012, and the Eastern Zone - Southern Subzone had the trip limit reduced in the 2009/2010 fishing year on February 7, 2010, and 2010/2011 fishing year on March 8, 2011. Figure 1 provides the percent of Gulf of Mexico trips that harvested king mackerel with hook-and-line gear from logbooks for the three fishing years of 2009/2010, 2010/2011, and 2011/2012 and for the three zones and two different data sorting methods. Landings after trip limit reductions and after closures were removed from Figure 1 since they can cause significant changes to the amount of fish landed per trip.

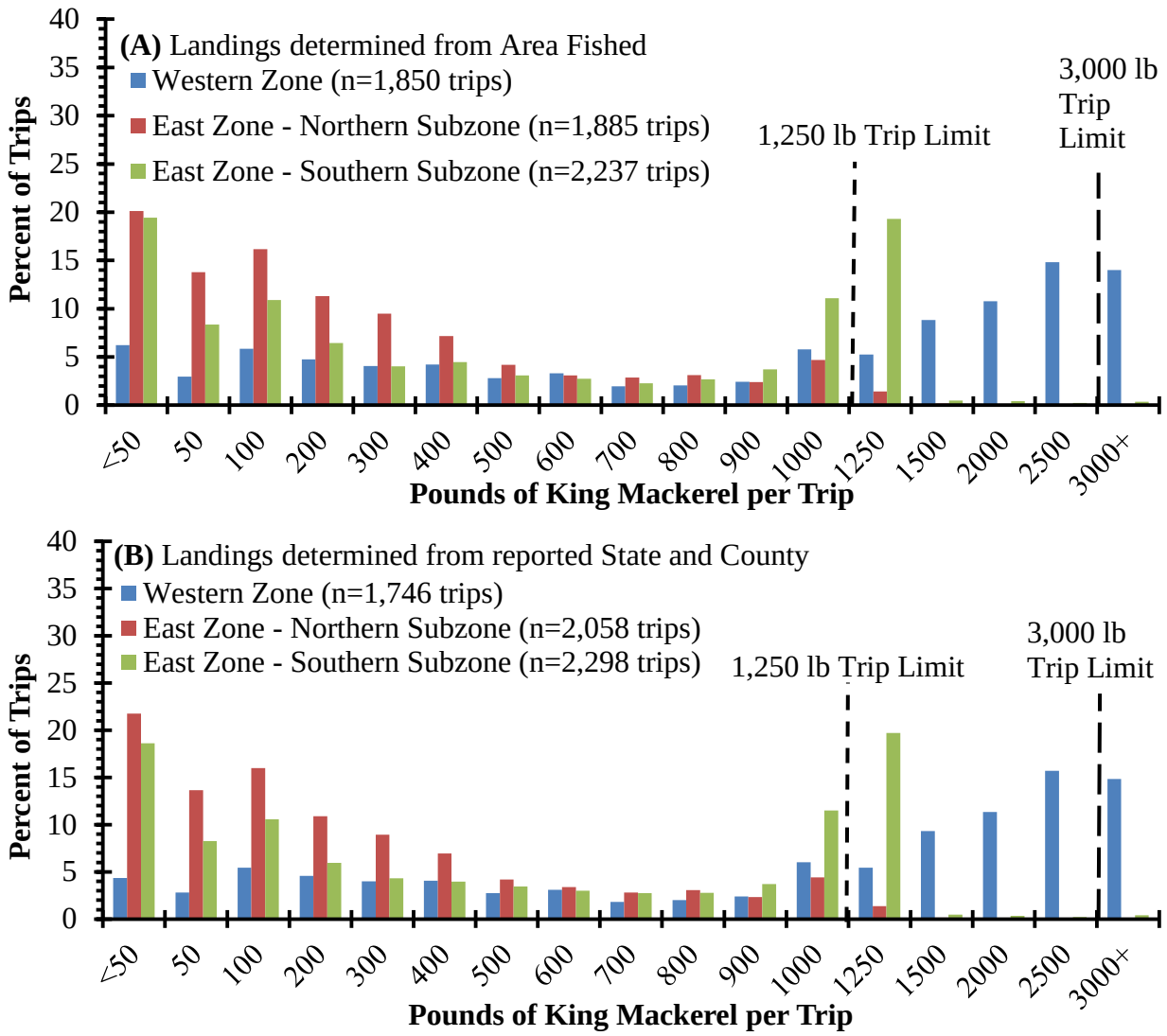

Figure 1. Percent of Gulf of Mexico logbook-reported trips that commercially harvested king mackerel with hook-and-line gear for the three fishing years of 2009/2010, 2010/2011, and 2011/2012. Harvest was defined as pounds whole weight of king mackerel per trip, and the trips were separated by zone (Western Zone, Eastern Zone - Northern Subzone, and Eastern Zone - Southern Subzone). Figure A provides the trips reported by area fished, and Figure B provides the trips reported by State and County of landing. Landings after any reductions of trip limits and after any of the closures were removed.

Percent increase or decrease in annual landings

Action 1 proposes reductions to the trip limit for the Western Zone. The impact from reducing the trip limit was calculated by limiting trips in previous years (2009/2010, 2010/2011, and 2011/2012) to newly proposed trip limits. These reductions were converted to percentages based on the total harvest from previous years.

Action 1 in Amendment 20B proposes increases in the trip limits for the Eastern Zone - Northern Subzone and Eastern Zone - Southern Subzone. Impacts from increasing the trip limits were

evaluated assuming that trips that met the trip limit in recent years would also meet the new trip limit. This provides a maximum estimated harvest rate that may occur if trip limits are increased. Not all trips meeting the current trip limit would likely meet newly proposed trip limits, but information is not available to determine exactly how many additional pounds of king mackerel these trips would harvest once the trip limits are increased. Trips that met the trip limit were defined as trips with landings of 1,200 pounds or more. Therefore, if the proposed trip limit of 2,000 pounds is being explored then any trips that had 1,200 to 2,000 pounds were adjusted to be 2,000 pounds. The range starts at 1,200 pounds instead of 1,250 pounds to account for any trips that were close but slightly under the trip limit. Trips that harvested below 1,200 lbs were not modified. Trips with landings greater than the proposed trip limit were not changed since these trips did not follow the current trip limit in the past, and would probably not follow trip limits in the future. Table 1 provides the percent increases and decreases in annual landings for the various trip limits being proposed.

Table 1. Percent increases and decreases in annual landings for various commercial king mackerel hook-and-line trip limits proposed in Amendment 20B generated from logbook data in the fishing years 2009/2010, 2010/2011, and 2011/2012. Percent decreases in landings are negative and increases in landings are positive. The reductions were calculated with landings per trip reported by area fished, and also for trips reported by State and County of landing. The current trip limit is 3,000 lbs for the Western Zone (Western), and 1,250 lbs for the Eastern Zone – Northern Subzone (E. Northern) and Eastern Zone – Southern Subzone (E. Southern).

Zone	Alternative			
	1	2	3	4
	3,000/1250 lbs	2,000 lbs	3,000 lbs	1,250 lbs
Trips Reported by Fishing Area				
Western	No Change	-19.5	No Change	-42.2
E. North	No Change	6.0	13.4	No Change
E. South	No Change	21.1	39.6	No Change
Trips Reported by State and County of Landing				
Western	No Change	-19.7	No Change	-42.7
E. North	No Change	5.9	13.3	No Change
E. South	No Change	20.9	39.3	No Change

Predicting closure dates

Western Zone

Logbook hook-and line landings data were used to predict when the ACL would be met with the proposed trip limits for the Western Zone. Table 1 shows only minor differences in percent reductions between landings by area fished and landings by state and county. Therefore, only the landings by state and county were pursued. Landings by state and county were chosen over area fished because the mackerel zone boundaries were set by state and county borders.

Action 1 of Amendment 20B proposes reductions in the trip limits for the Western Zone. Impacts from reducing the trip limits were evaluated using logbook landings for 2011/2012 from the start of the fishing year (July 1, 2011) to the closure date (September 16, 2011). Logbook landings data before the 2011/2012 fishing year were not used because the 2009/2010 season closed even earlier (September 4, 2009), and the 2010/2011 fishing year was heavily impacted by closures from the Deepwater Horizon Oil spill. Trip limits were applied to 2011/2012 logbook landings data to predict daily landings. This was done by reducing the landings for trips that exceeded the proposed trip limit to match the proposed trip limit. For example, if a trip limit of 1,500 pounds is being explored then a trip with 2,300 pounds would have the landings reduced to 1,500 pounds. Logbook landings are not a perfect match to quota monitoring landings because the data are collected differently and non-federally permitted fishermen fishing in state waters do not have to submit federal logbooks. Figure 2 displays the difference between logbook and quota monitoring landings. This difference in landings between the two datasets was accounted for by scaling the monthly logbook landings to equal monthly quota monitoring landings.

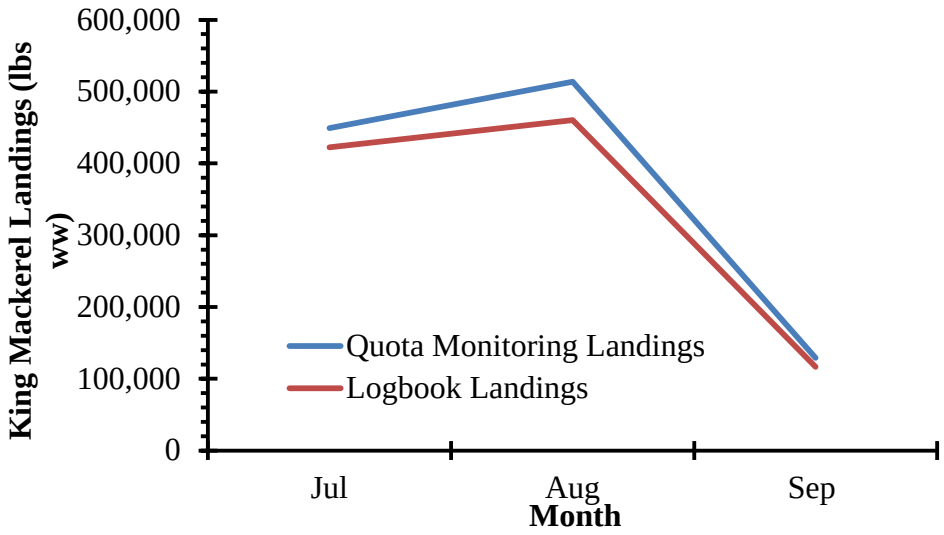

Figure 2. King mackerel Western Zone quota monitoring and logbook landings for July to September of 2011.

Landings for the remaining closed days of September (Sept. 16-30) were predicted by determining the average pounds per day of king mackerel harvested during days when the fishery was open (Sept 1-15, 2011) and then applying the pounds per day to the remaining closed days. This follows the assumption that if September had remained open the harvest rate would have stayed the same for the rest of the month.

An estimate of landings for October was needed to determine closure dates from reducing the trip limit in the Western zone. The Western Zone king mackerel fishery in 2005/2006, 2007/2008, and 2008/2009 did not close until after October, and had relatively similar October landings for all three years (Figure 3). The average October landings from these three fishing years were used as the predicted October landings. Landings for October were slightly less than predicted September landings. It is recognized that historical landings may not be representative

of current fishing patterns, but information is lacking to determine what landings would be in late fall and winter.

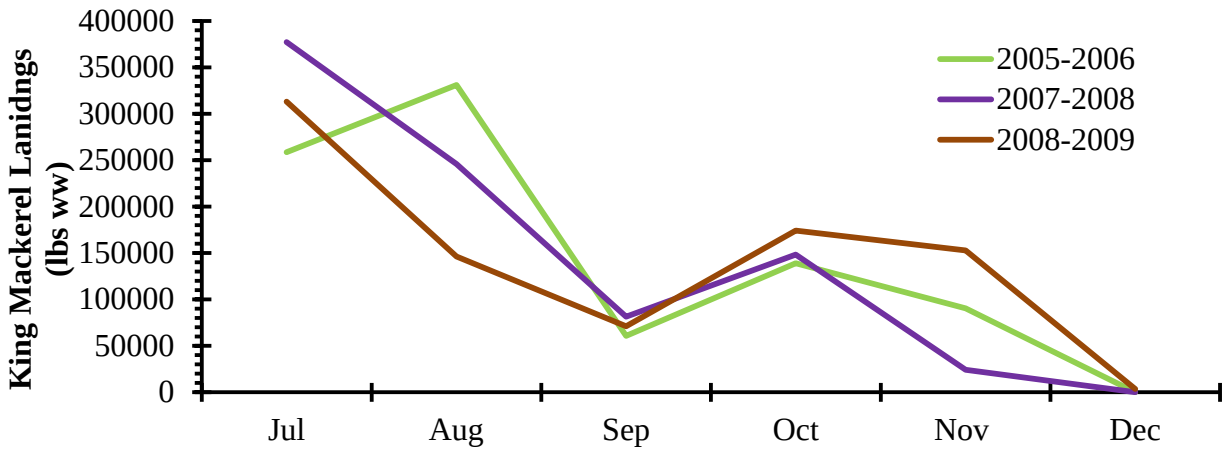

Figure 3. Monthly commercial king mackerel logbook hook-and-line gear landings for the western zone for July-December for the fishing years 2005/2006, 2007/2008, and 2008/2009.

In the last 12 years only two fishing seasons in the Western Zone were open for the entire month of November, and one of these years (2010/2011) had many areas closed due to the Deepwater Horizon Oil Spill. Since there is a relatively small amount of data available for November, and also the next month of December, predicted landings for November and December were assumed to be the same as October. Figure 4 provides the predicted monthly landings for the Western Zone used to determine closure dates based on various trip limits, and the monthly logbook landings for the past seven fishing years.

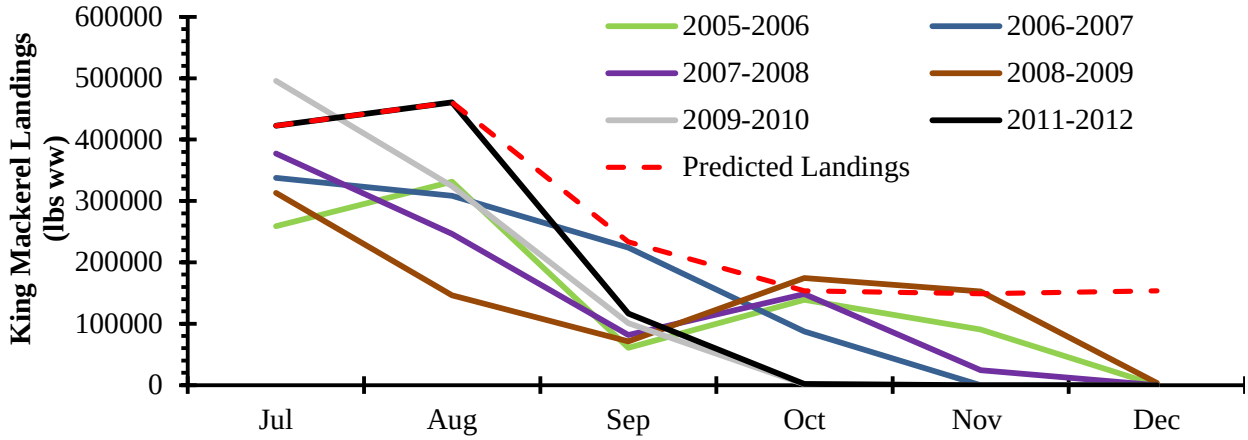

Figure 4. Monthly commercial king mackerel logbook hook-and-line landings for the Western Zone for July-December for the fishing years 2005/2006, 2006/2007, 2007/2008, 2008/2009, 2009/2010, 2011/2012, and the predicted landings used to determine closure dates based on various trip limits. Landings from the 2010/2011 fishing year were not included because they were impacted by the multiple closures from the Deepwater Horizon Oil Spill.

The predicted landings in July and August reflect the high catch rates for the most recent year of data (2011/2012) (Figure 4). The predicted landings for September are similar to the 2006/2007 landings, but much higher than the September landings for the other five fishing years presented in Figure 4. These low landings in September for three of those five recent years are probably due to the hurricanes that struck the Western Zone in September during those fishing years. Both hurricanes Katrina and Rita hit in the 2005/2006 fishing year, hurricane Huberto hit in the 2007/2008 fishing year, and hurricane Ike hit in 2008/2009 fishing year. The September landings were low in the 2009/2010 fishing year because the fishery was closed on September 4th. The 2010/2011 fishing year landings were not explored because they were heavily impacted with closures from the Deepwater Horizon Oil Spill. Only the 2006/2007 fishing year did not have any hurricanes in the Western Zone in September, was open the entire month of September, and was not impacted by an oil spill. Figure 3 shows 2006/2007 September landings are similar to the predicted September landings. This provides evidence that the predicted September landings are likely a reflection of the true landings if the fishery is not interrupted by hurricanes, oil spills, and closures.

Percent reductions for each proposed trip limit were calculated monthly and for all three months combined using logbook data from the 2011/2012 fishing year (Table 2). The average percent reductions generated for July-September for each proposed trip limit were applied to the daily landings from September 16th to December 31st to predict monthly landings. Landings were then cumulatively summed across months from July 1 until the ACL was projected to be met.

Table 2. Western Zone percent reductions for various commercial king mackerel hook-and-line trip limits proposed in Amendment 20B generated from the 2011/2012 fishing year and predicted landings. Alternatives 1 and 3 propose no change to the current trip limit of 3,000 pounds.

Month	Percent Reduction for Various Trip Limits			
	Alt 1	Alt 2	Alt 3	Alt 4
	3000 lbs	2000 lbs	3000 lbs	1250 lbs
July	No Change	19.1	No Change	41.4
August	No Change	21.9	No Change	44.7
September	No Change	23.1	No Change	46.8
Jul-Sep Average	No Change	20.9	No Change	43.6

Table 3 provides the predicted closure dates for the proposed Western Zone trip limits. The reductions in the trip limit do extend the number of open days but none of them extend the open days to a full year.

Table 3. Predicted closure dates for the Western Zone king mackerel hook-and-line fishery for the different proposed trip limits in Amendment 20B. Alternatives 1 and 3 propose no change to the current trip limit of 3,000 pounds, and the closure date for the 2011/2012 season was September 16, 2011.

Alternative	1	2	3	4
Trip Limit	3,000 lbs	2,000 lbs	3,000 lbs	1,250 lbs
Closure Date	11-Sep*	28-Oct	11-Sep*	11-Feb

* Projected closure date is earlier than the 2011/2012 closure date because the ACL was exceeded.

Eastern Zone - Northern Subzone

Logbook hook-and-line landings data were used to predict when the ACL would be met for the proposed trip limits for the Eastern Zone - Northern Subzone. Table 1 shows only minor differences in percent reductions between landings by area fished and landings by state and county. Therefore, only the landings by state and county were pursued. Landings by state and county were chosen over area fished because the king mackerel zone boundaries were set by state and county borders.

Action 2 of Amendment 20B proposes increases in the trip limits for the Eastern Zone - Northern Subzone. Impacts from increasing the trip limits were evaluated assuming that trips that met the trip limit (1,200 lbs or more) in recent years would also meet the new trip limits as described above.

Logbook landings for 2011/2012 were used to predict when the ACL would be met. This fishing year reflects recent catch rates and, unlike earlier years, did not experience a trip limit reduction when 75% of the quota was met. Instead the fishery closed on October 7, 2011 with no change to the trip limit during the season. Logbook landings are not a perfect match to quota monitoring landings because the data are collected differently and non-federally permitted fishermen fishing in state waters do not have to submit federal logbooks. Figure 5 displays the difference between logbook and quota monitoring landings. This difference in landings between the two datasets was accounted for by scaling the monthly logbook landings to equal monthly quota monitoring landings.

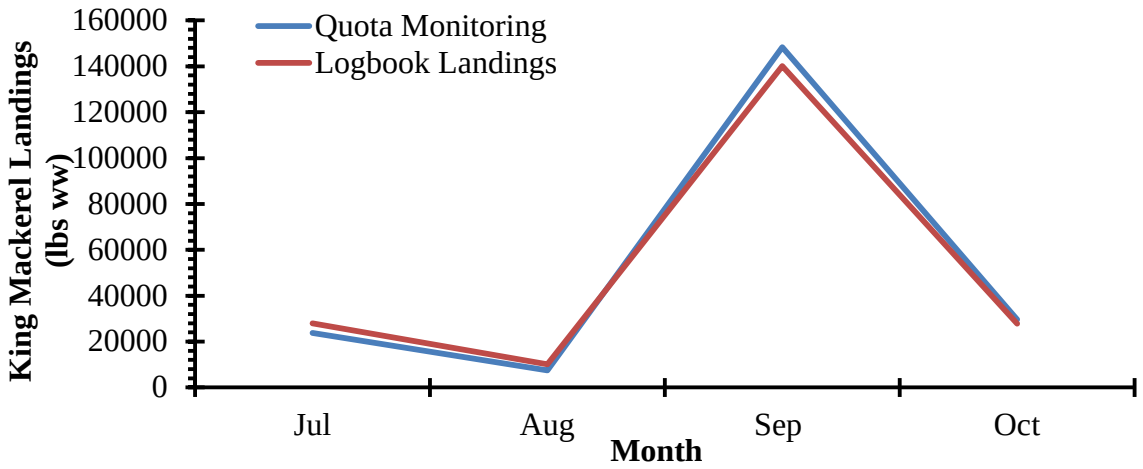

Figure 5. King mackerel Eastern Zone - Northern Subzone quota monitoring and logbook landings for July to October of 2011.

Increases in the trip limit did not result in large changes to the season length (Table 4). The largest increase in the trip limit to 3,000 pounds decreased the season length by less than two weeks from last year's closure date. The small change in season length is a result of recent landings being high in the month of September. Over 70% of the landings in 2011/2012 came from the month of September (Table 5). Also, there were a relatively small number of trips in this subzone that met or exceeded the 1,250 trip limit (Figure 1). In 2011/2012 only 2 percent of the trips exceeded 1,200 pounds per trip, and only 1 percent of the trips met or exceeded the 1,250 trip limit and. Therefore, only a small amount of the landings were adjusted to predict closure dates from the increase in the trip limit.

Table 4. King mackerel Eastern Zone - Northern Subzone predicted closure dates for the proposed hook-and-line trip limits in Amendment 20B. Alternative 1 proposes no change to the current trip limit of 1,250 pounds, and the closure date for the 2011/2012 season was October 7, 2011.

Alternative	1	2	3
Trip Limit	1,250 lbs	2,000 lbs	3,000 lbs
Closure Date	28-Sep*	27-Sep	26-Sep

* Projected closure date is earlier than the 2011/2012 closure date because the ACL was exceeded.

Table 5. Monthly quota monitoring king mackerel hook-and-line gear landings for the Eastern Zone - Northern Subzone in 2011/2012. The fishery was closed on October 7, 2011.

Month	lbs	%
Jul	23,722	11.3
Aug	7,390	3.5
Sep	148,383	71.0
Oct	29,610	14.2
Total	209,105	100

Alternative 1 has a decrease of the trip limit from 1,250 pounds to 500 pounds when 75% of the ACL is met. Under this alternative 75% of the ACL is met on September 23rd. The reduction of the trip limit to 500 pounds after September 23rd extends the season until October 1st.

Eastern Zone - Southern Subzone
Logbook hook-and-line landings data were used to predict when the ACL would be met with the proposed trip limits for the Eastern Zone - Southern Subzone. Table 1 shows only minor differences in percent reduction results between landings by area fished and landings by state and county. Therefore, only the landings by state and county were pursued. Landings by state and county were chosen over area fished because the mackerel zone boundaries were set by state and county borders.

Action 1 of Amendment 20B proposes increases in the trip limits for the Eastern Zone - Southern Subzone. Impacts from increasing the trip limits were evaluated assuming that trips that met the trip limit in recent years would also meet the new trip limits as described above.

Logbook landings for 2011/2012 were used to predict when the ACL would be met. This fishing year reflects recent catch rates and, unlike earlier years, did not experience a trip limit reduction when 75% of the quota was met. Instead the fishery closed on February 26, 2012 with no change to the trip limit during the season. Logbook landings are not a perfect match to quota monitoring landings because the data are collected differently and non-federally permitted fishermen fishing in state waters do not have to submit federal logbooks. Figure 6 displays the difference between logbook and quota monitoring landings. This difference in landings between the two datasets was accounted for by scaling the monthly logbook landings to equal monthly quota monitoring landings.

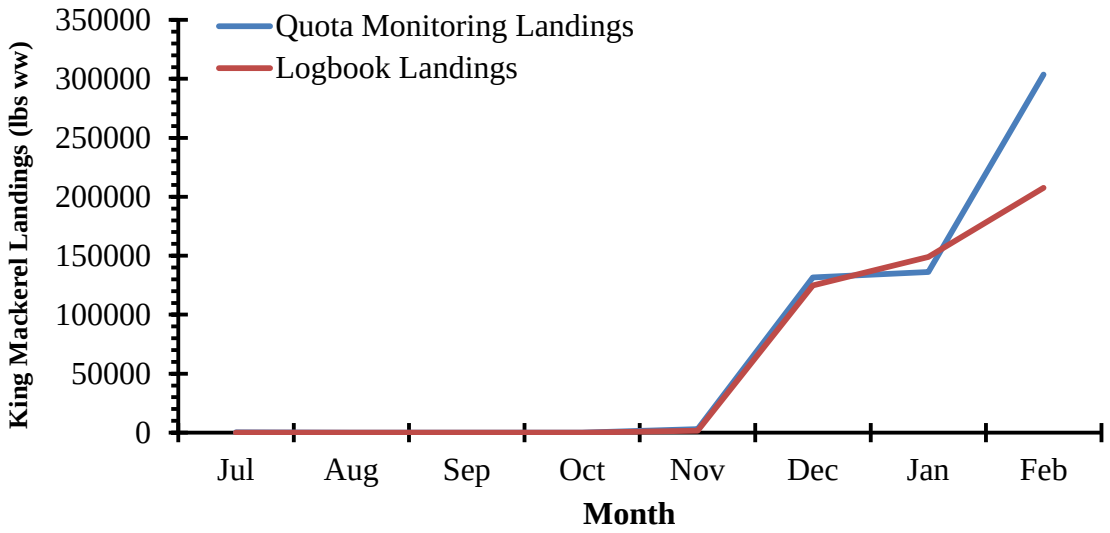

Figure 6. King mackerel Eastern Zone - Southern Subzone quota monitoring and logbook landings for July to February of the 2011/2012 fishing year.

Increases in the trip limit did not result in large changes to the season length (Table 6). Even the largest increase in the trip limit decreased the season length by only 17 days compared to last year's closure date of February 26, 2012. This small change is likely a result of two factors. The first factor is over 50% of the landings in 2011/2012 came from the month of February even though the fishery was not open the entire month (Table 7). The second factor is the pounds per trip increased with each month, and 50% of the trips exceeding 1,200 pounds per trip occurred in February. Additionally, the majority of these trips with landings greater than 1,200 pounds took place at the end of the month between February 16 and the closure date (February 26, 2012) (Table 8).

Table 6. King mackerel Eastern Zone - Southern Subzone predicted closure dates for the proposed trip limits in Amendment 20B. Alternative 1 proposes no change to the current trip limit of 1,250 pounds, and the closure date for the 2011/2012 season was February 26, 2012.

Alternative	1	2	3
Trip Limit	1,250 lbs	2,000 lbs	3,000 lbs
Closure Date	21-Feb*	15-Feb	9-Feb

* Projected closure date is earlier than the 2011/2012 closure date because the ACL was exceeded.

Table 7. Monthly quota monitoring king mackerel Eastern Zone – Southern Subzone hook-and-line landings for 2011/2012. Landings in July to October were combined to protect confidentiality of the data. The fishery was closed on February 26, 2012.

Month	lbs	%
Jul-Oct	252	0.0
Nov	2,997	0.5
Dec	131,637	22.9
Jan	136,235	23.7
Feb	303,714	52.8
Total	574,835	100

Table 8. Number of king mackerel hook-and-line trips for 2011/2012 for the Eastern Zone - Southern Subzone that exceeded 1,200 pounds per trip. No trips during July to October exceeded 1,200 pounds per trip.

Month	n	%
Nov	0	0.0
Dec	40	24.8
Jan	40	24.8
Feb 1-15	30	18.6
Feb 16-26	51	31.7

Alternative 1 has a decrease of the trip limit from 1,250 pounds to 500 pounds when 75% of the ACL is met. Under this alternative 75% of the ACL is met on February 15th. In the 2011/2012 season the fishery closed on February 26th, 2012. Yet, the analysis from reducing the landings from applying the 500 pound trip limit extended the season beyond February 26th. Therefore, data after February 26th was needed to determine a closure date from reaching the ACL. The king mackerel Southern Subzone was open from February 26th to March 23rd in the 2010/2011 season, and the logbook data from this time was used to predict when the season would reach the ACL with the 500 pound trip limit. The 2010/2011 season had the reduction in the trip limit from 1,250 to 500 pounds on March 8th, 2011. This was addressed by applying a 500 pound trip limit from February 26th to March 7th. The analysis predicted a closure date of March 7th. In conclusion, the reduction of the trip limit to 500 pounds after February 15 extends the season until March 7th.

All Three Zones

Table 9 provides the predicted closure dates for all three zones for all the trip limit alternatives being proposed in Amendment 20B.

Table 9. Predicted closure dates for the three king mackerel zones in the Gulf of Mexico for the proposed trip limits in Amendment 20B. The dates in parentheses provided for Alternative 1 were each zone's actual closure dates for the 2011/2012 season.

Zone	Projected Closure Dates for Various Trip Limits			
	Alt. 1	Alt. 3	Alt. 5	Alt. 6
	3,000/1,250 lbs	2,000 lbs	3,000 lbs	1,250 lbs
Western Zone	11-Sep (9/16/2011)	28-Oct	11-Sep	11-Feb
Eastern Zone - Northern Subzone	28-Sep (10/7/2011)	27-Sep	26-Sep	28-Sep
Eastern Zone - Southern Subzone	21-Feb (2/26/2012)	15-Feb	9-Feb	21-Feb

Zone	Projected Closure Dates for Various Trip Limits		
	Alt. 1	Alt. 3	Alt. 5
	3,000/1,250 lbs	2,000 lbs	3,000 lbs
Western Zone	11-Sep (9/16/2011)	28-Oct	11-Sep
Eastern Zone - Northern Subzone	28-Sep (10/7/2011)	27-Sep	26-Sep
Eastern Zone - Southern Subzone	21-Feb (2/26/2012)	15-Feb	9-Feb