

# Coastal Migratory Pelagics Sale and Permit Provisions



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## Draft Amendment 19 to the Fishery Management Plan for the Coastal Migratory Pelagic Resources of the Gulf of Mexico and South Atlantic

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

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**Name of Action**

Amendment 19 to the Fishery Management Plan for the Coastal Migratory Pelagic Resources of the Gulf of Mexico and South Atlantic, 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
APA	Administrative Procedures Act
ASMFC	Atlantic States Marine Fisheries Commission
B	Biomass
B <sub>MSY</sub>	Stock biomass level capable of producing an equilibrium yield of MSY
CFDBS	Commercial Fisheries Data Base System
CFL	Coastal fisheries logbook
CMP	Coastal Migratory Pelagics
Council	Gulf of Mexico and South Atlantic Fishery Management Councils
CPUE	Catch per unit effort
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
FL	fork length
FLS	Federal logbook system
F <sub>MSY</sub>	Fishing mortality rate corresponding to an equilibrium yield of MSY
F <sub>OY</sub>	Fishing mortality rate corresponding to an equilibrium yield of OY
F <sub>30% SPR</sub>	Fishing mortality corresponding to 30% spawning potential ratio
FMP	Fishery Management Plan
FWRI	Florida Wildlife Research Institute
Gulf Council	Gulf of Mexico Fishery Management Council
GMFMC	Gulf of Mexico Fishery Management Council
HAPC	Habitat area of particular concern
HBS	Headboat Survey
IRFA	Initial regulatory flexibility analysis
LOF	List of fisheries
lq	location quotient
M	Mortality
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
MMPA	Marine Mammal Protection Act
mp	million pounds
MRFSS	Marine Recreational Fisheries Survey and Statistics
MRIP	Marine Recreational Information Program
MSY	Maximum sustainable yield

NEFSC	New England Fisheries Science Center
NOAA	National Oceanic and Atmospheric Administration
nm	nautical mile
NOS	National Ocean Service
OFL	Overfishing level
OMB	Office of Management and Budget
OY	Optimum yield
PRA	Paperwork Reduction Act
Pw	Product weight
RA	Regional Administrator
RFA	Regulatory Flexibility Act of 1980
RIR	Regulatory impact review
rq	regional quotient
SAV	Submerged aquatic vegetation
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
SOVI	Social Vulnerability Index
SSC	Scientific and Statistical Committee
SPR	Spawning potential ratio
TAC	Total allowable catch
TPWD	Texas Parks and Wildlife Department
ww	whole weight

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# FISHERY IMPACT STATEMENT

# CHAPTER 1. INTRODUCTION

## What Actions Are Being Proposed?

Actions in this amendment will address issues associated with the coastal migratory pelagic (CMP) permits, including whether to require commercial permits for sale of fish caught under the bag limit, eliminate some permits, and modify the conditions for obtaining and holding permits.

## 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?*

- NMFS and Council staffs – Develop alternatives based on guidance from the Council, and analyze the environmental impacts of those alternatives
- Gulf and South Atlantic Councils – Determine a range of actions and alternatives, and recommend action to NMFS
- Secretary of Commerce – Will approve, disapprove, or partially approve the amendment

## Why Are The Councils Considering Action?

Concerns have arisen that sales of bag limit caught fish, which are counted toward the commercial quotas, are contributing to early closures of the commercial sector. In addition, potential double counting of these fish could lead to erroneous assessments. This amendment will also explore the effect of increased participation in the commercial sector relative to the capacity of the fishery to determine if the number of permits should be reduced and if restrictions on the permits should be eased or tightened.

## 1.1 Background

Currently, fishermen who do not possess a valid federal commercial permit may sell CMP species that were harvested in the exclusive economic zone (EEZ) in compliance with the applicable recreational bag limits and other state laws. The Councils are considering whether to require a valid federal commercial permit to sell CMP species harvested from the Gulf and Atlantic EEZ.

All fish from the EEZ that are sold are considered commercial harvest and count towards a species' commercial quota, whether or not the fisherman has a federal commercial permit. This includes fish caught during tournaments that are donated through a dealer. The Councils are concerned that harvest from trips by recreational fishermen may contribute significantly to the commercial quota and lead to early closures in the commercial sector of the fishery. The

Councils also concluded prohibiting sale of fish caught under the bag limit should improve the accuracy of data by eliminating “double counting” – harvest from a single trip counting towards both the commercial quota and recreational allocation. This practice occurs when catches are reported through recreational surveys and through commercial trip tickets and logbooks.

NMFS issues king mackerel limited access permits and Spanish mackerel open access permits. These permits are required for commercial fishermen in the Gulf, South Atlantic, or Mid-Atlantic to retain fish in excess of the bag limit for the respective species. No permits are issued for cobia; however, the commercial cobia possession limit is the same as the recreational possession limit. The king and Spanish mackerel commercial permits are each valid for fishing in the Gulf, South Atlantic, and Mid-Atlantic regions. However, both species have separate regulations for two migratory groups, Gulf and Atlantic, which are developed by the respective Councils. Currently, sale of fish caught under the bag limit is allowed for both groups.

In recent years, increased restrictions on other species may have resulted in more individuals fishing for king mackerel. Although the king mackerel permit is limited access, a large number of permits were issued, and some fishermen have continued to renew their permits even if they were not actively fishing for king mackerel. Those individuals may now be re-entering the king mackerel component of the CMP fishery, increasing effort and possibly increasing the likelihood of quota closures. Reducing the number of king mackerel commercial permits based on historical landings will be considered in this amendment.

Some permits issued by NMFS have requirements for obtaining and keeping those permits. Changes to two requirements will be considered in this amendment. First, to obtain or renew a king or Spanish mackerel commercial permit, a minimum amount of the applicant’s earned income must be derived from commercial fishing. This requirement is difficult to enforce and has recently been removed as a requirement to obtain or renew a Gulf reef fish permit. No other federal permit in the Southeast Region has an income requirement except the spiny lobster permit, which mimics requirements by Florida. Second, there is currently no requirement that vessels with commercial king or Spanish mackerel permits, or coastal migratory pelagic for-hire permits, comply with more restrictive federal regulations, if any, regardless of whether the fish are harvested in state waters. Adding this requirement would bring the CMP fishery in line with the Gulf reef fish fishery.

## 1.2 Purpose and Need

### *Purpose for Action*

The purpose of this amendment is to consider modifications to the coastal migratory pelagics permit requirements and restrictions, including modification of the sales provisions and consideration of whether a reduction in effort through permit reductions is needed.

### *Need for Action*

The need for the proposed actions is to achieve optimum yield using the best available data while ensuring the fishery resources are utilized efficiently and promoting safety at sea.

## 1.3 History of Management

The Fishery Management Plan for Coastal Migratory Pelagic (CMP) Resources in the Gulf of Mexico and South Atlantic (FMP), with Environmental Impact Statement (EIS), was approved in 1982 and implemented by regulations effective in February of 1983. Managed species included king mackerel, Spanish mackerel, and cobia. The FMP treated king and Spanish mackerel as unit stocks in the Atlantic and Gulf of Mexico. 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.

### FMP Amendments

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

**Amendment 2**, with environmental assessment (EA), implemented in July of 1987, revised MSY for Spanish mackerel downward, recognized two migratory groups, established allocations of TAC for the commercial and recreational sectors, and set commercial quotas and bag limits. Charterboat permits were established, and it was clarified that TAC must be set below the upper



range of Acceptable Biological Catch (ABC). The use of purse seines on overfished stocks was prohibited, and their allocation of TAC was redistributed under the 69%/31% split.

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

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

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

- Extended the management area for Atlantic migratory groups of mackerels through the Mid-Atlantic Council's area of jurisdiction;
- Revised problems in the fishery and plan objectives;
- Revised the fishing year for Gulf Spanish mackerel from July-June to April-March;
- Revised the definition of "overfishing";
- Added cobia to the annual stock assessment procedure;
- Provided that the South Atlantic Council will be responsible for pre-season adjustments of TACs and bag limits for the Atlantic migratory groups of mackerels while the Gulf Council will be responsible for Gulf migratory groups;
- Continued to manage the two recognized Gulf migratory groups of king mackerel as one until management measures appropriate to the eastern and western migratory groups can be determined;
- Re-defined recreational bag limits as daily limits;
- Deleted a provision specifying that bag limit catch of mackerel may be sold;
- Provided guidelines for corporate commercial vessel permits;
- Specified that Gulf migratory group king mackerel may be taken only by hook-and-line and run-around gillnets;
- Imposed a bag and possession limit of two cobia per person per day;
- Established a minimum size of 12 in FL or 14 in TL for king mackerel and included a definition of "conflict" to provide guidance to the Secretary.

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

- Identified additional problems and an objective in the fishery;
- Provided for rebuilding overfished stocks of mackerels within specific periods;
- Provided for biennial assessments and adjustments;
- Provided for more seasonal adjustment actions;
- Allowed for Gulf migratory group king mackerel stock identification and allocation when appropriate;
- Provided for commercial Atlantic migratory group Spanish mackerel possession limits;
- Changed commercial permit requirements to allow qualification in one of three preceding years;
- Discontinued the reversion of the bag limit to zero when the recreational quota is filled;
- Modified the recreational fishing year to the calendar year; and

- Changed the minimum size limit for king mackerel to 20 in FL, and changed all size limit measures to fork length only.

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

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

- Clarified ambiguity about allowable gear specifications for the Gulf migratory group king mackerel fishery by allowing only hook-and-line and run-around gillnets. However, catch by permitted, multi-species vessels and bycatch allowances for purse seines were maintained;
- Established allowable gear in the South Atlantic and Mid-Atlantic areas as well as providing for the RA (RA) to authorize the use of experimental gear;
- Established the Councils' intent to evaluate the impacts of permanent jurisdictional boundaries between the Gulf and South Atlantic Councils and development of separate FMPs for coastal pelagic species in these areas;
- Established a moratorium on commercial king mackerel permits until no later than October 15, 2000, with a qualification date for initial participation of October 16, 1995;
- Increased the income requirement for a king or Spanish mackerel permit to 25% of earned income or \$10,000 from commercial sale of catch or charter or head boat fishing in one of the three previous calendar years, but allowed for a one-year grace period to qualify under permits that are transferred;
- Legalized retention of up to five cut-off (damaged) king mackerel on vessels with commercial trip limits;
- Set an optimum yield (OY) target at 30% static spawning potential ratio (SPR) for the Gulf and 40% static SPR for the Atlantic;
- Provided the South Atlantic Council with authority to set vessel trip limits, closed seasons or areas, and gear restrictions for Gulf migratory group king mackerel in the North Area of the Eastern Zone (Dade/Monroe to Volusia/Flagler County lines);
- Established various data consideration and reporting requirements under the framework procedure;
- Modified the seasonal framework adjustment measures and specifications (see Appendix A);
- Expanded the management area for cobia through the Mid-Atlantic Council's area of jurisdiction (to New York).

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

- Reallocated the percentage of the commercial allocation of TAC for the North Area (Florida east coast) and South/West Area (Florida west coast) of the Eastern Zone to 46.15% North and 53.85% South/West and retained the recreational and commercial allocations of TAC at 68% recreational and 32% commercial;
- Subdivided the commercial hook-and-line king mackerel allocation for the Gulf

migratory group, Eastern Zone, South/West Area (Florida west coast) by establishing two subzones with a dividing line between the two subzones at the Collier/Lee County line;

- Established regional allocations for the west coast of Florida based on the two subzones with 7.5% of the Eastern Zone allocation of TAC being allowed from Subzone 2 and the remaining 92.5% being allocated as follows:
- 50% - Florida east coast
- 50% - Florida west coast that is further subdivided:
  - 50% - Net Fishery
  - 50% - Hook-and-Line Fishery
- Established a trip limit of 3,000 lb per vessel per trip for the Western Zone;
- Established a moratorium on the issuance of commercial king mackerel gillnet endorsements and allow re-issuance of gillnet endorsements to only those vessels that: 1) had a commercial mackerel permit with a gillnet endorsement on or before the moratorium control date of October 16, 1995 (Amendment 8), and 2) had landings of king mackerel using a gillnet in one of the two fishing years, 1995-1996 or 1996-1997, as verified by the NMFS or trip tickets from Florida; allowed transfer of gillnet endorsements to immediate family members (son, daughter, father, mother, or spouse) only; and prohibited the use of gillnets or any other net gear for the harvest of Gulf migratory group king mackerel north of an east/west line at the Collier/Lee County line;
- Increased the minimum size limit for Gulf migratory group king mackerel from 20 in to 24 in FL
- Allowed the retention and sale of cut-off (damaged), legal-sized king and Spanish mackerel within established trip limits.

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

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

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

**Amendment 13**, with SEIS, implemented August 19, 2002, established two marine reserves in the EEZ of the Gulf in the vicinity of the Dry Tortugas, Florida known as Tortugas North and Tortugas South in which fishing for coastal migratory pelagic species is prohibited. This action complements previous actions taken under the NOAA Sanctuaries Act.

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

**Amendment 15**, with EA, implemented August 8, 2005, established an indefinite limited access program for the commercial king mackerel fishery in the EEZ under the jurisdiction of the Gulf, South Atlantic, and Mid-Atlantic Councils. It also changed the fishing season to March 1 through February 28/29 for the Atlantic migratory groups of king and Spanish mackerel.

**Amendment 16**, was not developed.

**Amendment 17**, with SEIS, implemented June 15, 2006, established a limited access system on for-hire reef fish and CMP permits. Permits are renewable and transferable in the same manner as currently prescribed for such permits. There will be a periodic review at least every 10 years on the effectiveness of the limited access system.

**Amendment 18**, with EA, implemented January 30, 2012, established annual catch limits and accountability measures for Gulf and Atlantic migratory groups for cobia, king mackerel, and Spanish mackerel. It also removed cero, little tunny, dolphin, and bluefish from the fishery management plan, revised the framework procedure, and separated cobia into Atlantic and Gulf migratory groups.

## CHAPTER 2. MANAGEMENT ALTERNATIVES

### 2.1 Action 1 – Sale of King and Spanish Mackerel

**South Atlantic Preferred Alternative 1:** No Action - No federal permit requirement to sell king and Spanish mackerel. Sale of king and Spanish mackerel harvested under the bag limit is allowed for persons that possess the necessary state permits. However, if a commercial closure has been implemented, the sale or purchase of king or Spanish mackerel of the closed species, migratory group, subzone, or gear type, is prohibited, including any king or Spanish mackerel taken under the bag limits.

**Alternative 2:** Prohibit sale of king mackerel caught under the bag limit, with the exception of for-hire trips in which the vessel also holds a federal king mackerel commercial permit. Prohibit sale of Spanish mackerel caught under the bag limit, with the exception of for-hire trips in which the vessel also holds a federal Spanish mackerel commercial permit. All sales of king and Spanish mackerel during a commercial closure are prohibited.

**Option a.** The South Atlantic Council's jurisdiction

**Option b.** The Gulf Council's jurisdiction

**Gulf Preferred Alternative 3:** Prohibit sale of king and Spanish mackerel caught under the bag limit. For a person to sell king or Spanish mackerel in or from the EEZ of the Gulf of Mexico or Atlantic, those fish must have been harvested on a commercial trip aboard a vessel with a commercial vessel permit/endorsement. A king mackerel permit is required to sell king mackerel and a Spanish mackerel permit is required to sell Spanish mackerel.

**Option a.** The South Atlantic Council's jurisdiction

**Option b.** The Gulf Council's jurisdiction

*Note: Sale or sell means the act or activity of transferring property for money or credit, trading, or bartering, or attempting to so transfer, trade, or barter.*

**Discussion:** **Alternative 1** requires a commercial king mackerel permit to retain and sell king mackerel in excess of the bag limit in the Gulf of Mexico (Gulf), South Atlantic, or Mid-Atlantic. These commercial permits are under limited access; no applications for additional commercial permits for king mackerel will be accepted by NMFS, but permits can be renewed or transferred. In addition, a limited-access gillnet endorsement is required to use gillnets in the southern Florida west coast subzone. As of February 5, 2013, there were 1,488 valid or renewable federal king mackerel permits. **Alternative 1** also requires a commercial Spanish mackerel permit for vessels fishing in the Gulf or South Atlantic to sell Spanish mackerel in excess of the bag limit. This permit is open access. As of February 5, 2013, there were 1,748 valid federal Spanish mackerel permits.

Sale of king and Spanish mackerel without a federal commercial permit is allowed consistent with state regulations. Most states require a commercial permit, saltwater products license, restricted species endorsement, or some other specific license to sell regulated finfish. Some states have regulations requiring a federal commercial permit to sell king mackerel or Spanish mackerel harvested from state waters, but overall these regulations are neither consistent nor

specific. For example in Florida, where highest landings of these species occur, a federal commercial permit is required to exceed the bag limit, but not to sell any of these three species.

**Alternative 2** would allow sale of king and Spanish mackerel caught under the bag limit by for-hire vessels that also have the corresponding federal commercial permits. Under both **Alternative 1** and **2**, sale would be prohibited when the commercial season is closed either by species or area fished. Currently, separate Gulf and South Atlantic permits are required for charter/headboats to harvest coastal migratory pelagic (CMP) species. The Gulf permit is limited access and the South Atlantic permit is open access. As of February 5, 2013, there were 1,339 valid or renewable Gulf and 1,449 Atlantic CMP charter/headboat permits.

**Gulf Preferred Alternative 3** would require a vessel to have onboard a federal king and/or Spanish mackerel commercial permit in order to sell these species, and it would prohibit the sale of king and Spanish mackerel caught under the bag limit.

Sale of fish, particularly king mackerel, by private anglers and for-hire vessels is not usual but is a common practice among crews of for-hire vessels, particularly in the Florida Keys. Often passengers give their catch to the captain or crew who then sell those fish. Thus, crew from headboats with high numbers of passengers may sell substantial amounts of fish.

All fish from the EEZ that are sold are considered commercial harvest and count towards a species' commercial quota, whether or not the fisherman has a federal commercial permit. This includes fish caught during tournaments that are donated through a dealer. The Gulf of Mexico and South Atlantic Fisheries Management Councils (Councils) are concerned that harvest from trips by recreational fishermen may contribute to the commercial quota and lead to early closures in the commercial sector of the fishery.

The Councils also concluded prohibiting sale of fish caught under the bag limit should improve the accuracy of data by eliminating "double counting" – harvest from a single trip counting towards both the commercial quota and recreational allocation. This practice occurs when catches are reported through the Marine Recreational Information Program (MRIP) and through commercial trip tickets and logbooks.

In support of the **Alternative 1** or **2**, for-hire vessel owners argue that fish sales are required to cover the cost of their trips. Competition demands are such that they must keep charter fees sufficiently low while maintaining adequate crew and equipment.

### **Council Conclusions:**

## 2.2 Action 2 – Sale of Cobia

**Gulf Preferred Alternative 1:** No Action - No federal permit requirement to sell cobia. Sale of cobia harvested under the possession limit is allowed for persons that possess the necessary state permits. However, if a closure has been implemented, the sale or purchase of cobia of the migratory group, subzone, or gear type, is prohibited, including any cobia taken under the possession limit.

**Alternative 2:** Create a new commercial cobia permit. For a person to sell cobia in or from the EEZ, those fish must have been harvested under a commercial quota aboard a vessel with a commercial cobia vessel permit.

Option a. The South Atlantic Council's jurisdiction

Option b. The Gulf Council's jurisdiction

**Alternative 3:** For a person to sell cobia in or from the EEZ of the Atlantic, those fish must have been harvested under a commercial quota aboard a vessel with a commercial vessel king mackerel or Spanish mackerel permit.

**South Atlantic Preferred Alternative 4:** For a person to sell cobia in or from the EEZ of the Atlantic or Gulf of Mexico, those fish must have been harvested under a commercial quota aboard a vessel with at least one of the following commercial vessel permits: king mackerel, Spanish mackerel, Gulf reef fish, South Atlantic snapper/grouper, or South Atlantic dolphin/wahoo.

*Note: Sale or sell means the act or activity of transferring property for money or credit, trading, or bartering, or attempting to so transfer, trade, or barter.*

**Discussion:** **Gulf Preferred Alternative 1** would continue to allow cobia to be sold without a federal commercial permit, but sale would have to comply with state regulations. Most states require a commercial permit, saltwater products license, restricted species endorsement, or some other specific license to sell regulated finfish. Most states' data gathering programs capture sales of cobia, and both sectors are, and have been, managed by exactly the same regulations, namely a two-fish per person per day possession limit and a 33-in FL minimum size limit. The 33-in FL regulation has been in effect since 1985 and the two-fish possession limit since August 1990. Furthermore, Williams (2001) concluded that Gulf group cobia were not likely to be experiencing overfishing and were not overfished. Because catch has been managed at a level below that which would be expected to result in overfishing, both sectors are managed by the exact same regulations, and commercial sector catches have consistently been only approximately 10% of the total; it is not clear that a federal commercial cobia permit is needed at this time.

If the Councils wish to prohibit sale of cobia harvested under the possession limit, a commercial permit must be established or the sale of cobia must be allowed under another commercial permit as with **Alternatives 2, 3, or 4**. A new federal commercial cobia permit (**Alternative 2**) would likely be open access, because a limited access permit would be difficult to distribute and data do not support the need for limited access.



**Alternative 3** would require vessels on a commercial trip to have either a federal king or Spanish mackerel permit to sell cobia. **South Atlantic Preferred Alternative 4** would allow sale of cobia harvested aboard a vessel on a commercial trip if the vessel had any of the following federal commercial permits: king mackerel, Spanish mackerel, Gulf reef fish, South Atlantic snapper/grouper, or South Atlantic dolphin/wahoo. Thus neither of these alternatives would require the creation of a new permit, and therefore, would be less of a burden to fishermen and the administration.

As with king and Spanish mackerel, sale of fish by private anglers is not usual but is somewhat common practice among crews of for-hire vessels in the Florida Keys. Often passengers give their catch to the captain or crew who then sell those fish. Thus, crew from head boats with high numbers of passengers may sell substantial amounts of fish. All fish from the EEZ that are sold are considered commercial harvest, whether or not the fisherman has a federal commercial permit. This includes fish caught during tournaments that are donated through a dealer. When fish that are caught by recreational anglers are sold, it can result in “double counting.” This practice occurs when catches are reported through MRIP and through commercial trip tickets and logbooks.

**Council Conclusions:**



## 2.3 Action 3 – Elimination of Latent Commercial King Mackerel Permits

**Alternative 1:** No Action – Do not eliminate any commercial king mackerel permits.

**Alternative 2:** Renew commercial king mackerel permits if average landings met the threshold (defined below) during:

- Option a. All years with data available (1998-2011) REMOVED BY S ATL
  - Suboption i. Average of all years
  - Suboption ii. At least one of the 14 years
- Option b. Ten years (2001-2010)
  - Suboption i. Average of all years
  - Suboption ii. At least one of the ten years
- Option c. Five years (2006-2010)
  - Suboption i. Average of all years
  - Suboption ii. At least one of the five years
- Option d. The threshold for average reported landings would be:
  - Suboption i. 1 lbs
  - Suboption ii. 100 lbs
  - Suboption iii. 500 lbs
  - Suboption iv. 1,000 lbs.

Note: The Councils must choose one option from a-c AND one option from d.

**Alternative 3:** Renew commercial king mackerel permits only if the permit had reported landings in:

- Option a. The fishing year ending September 30, 2010
- Option b. At least one of the five years preceding the September 30, 2010 control date
- Option c. At least two of the five years preceding the September 30, 2010 control date

**Alternative 4:** Allow transfer of latent commercial king mackerel permits only to immediate family members and allow transfer to another vessel owned by the same entity. Permits will be considered latent if average landings did not meet the threshold (defined below) during:

- Option a. All years with data available (1998-2011) REMOVED BY SOUTH ATL
  - Suboption i. Average of all years
  - Suboption ii. At least one of the 14 years
- Option b. Ten years (2001-2010)
  - Suboption i. Average of all years
  - Suboption ii. At least one of the ten years
- Option c. Five years (2006-2010)
  - Suboption i. Average of all years
  - Suboption ii. At least one of the five years
- Option d. The threshold for average reported landings of king mackerel would be:
  - Suboption i. 1 lb
  - Suboption ii. 100 lbs
  - Suboption iii. 500 lbs

Suboption iv. 1,000 lbs.

Option e. The threshold for average reported landings of any species would be: Added by S Atl

Suboption i. 1 lb

Suboption ii. 100 lbs

Suboption iii. 500 lbs

Suboption iv. 1,000 lbs.

Note: The Councils must choose one Suboption from Option a-c AND one Suboption from Option d or e.

*For Alternatives 2 and 4, the IPT recommends using calendar years because that is how the data is currently available and the two migratory groups have different fishing years. For this same reason, the IPT recommends removing Alternative 3.*

*For alternatives 2 and 4, the IPT recommends removing Option a because the permit history for the early years is less reliable than recent years.*

*For Alternative 4, the IPT recommends removing Option e because this action deals only with commercial king mackerel permits and data is not currently available for other species.*

*For Alternative 4, the IPT recommends changing the word “latent” to “inactive”.*

**Discussion:** Establishing participation criteria for future permit renewal is difficult because there is a single commercial king mackerel permit for vessels in the Gulf and Atlantic. Historically, some vessels from the Atlantic have fished on the Gulf group king mackerel quota, particularly in the western zone and the northern subzone off Florida. Additionally, there are different seasons in the Gulf and Atlantic and different zones that have different trip limits. Consequently, setting qualifications based on landings is biased by region because management may not allow fishermen to participate at the same level in different places.

Because king mackerel are a migratory species, most king mackerel permit holders do not fish exclusively for king mackerel. Yet king mackerel may make up a substantial portion of their income in a year. Revoking a permit based on a particular level of landings may penalize fishermen that diversify when king mackerel are not present in their area, rather than fishing in other zones.

Another compounding factor is that the commercial king mackerel permit is only a permit to exceed the bag limit, and a moratorium on the issuance of new commercial king mackerel permits has been in effect since 1998. Thus, if the regulations are not changed to require these commercial vessel permits to sell king mackerel (Action 1), particularly in Florida, fishermen who qualify for a Saltwater Products License and a Restricted Species Endorsement can legally harvest king mackerel from state waters and sell them. These fish would be counted against the commercial quotas in the same manner as harvests from federal waters. Consequently, although a fisherman may lose his federal permit, he may be able to continue to harvest in state waters.

**Alternative 1** would not eliminate any king mackerel permits. Opinions on the necessity of eliminating permits differ among fishermen. Some historical king mackerel fishermen are concerned that permit holders who have not been fishing or fishing at low levels may begin participating more fully. More vessels fishing under the same quota could mean lower catches for each vessel. On the other hand, many king mackerel fishermen diversify and harvest species from multiple fisheries. Although they may be considered “part-time” king mackerel fishermen, king mackerel may contribute a large portion of their income. The migratory nature of the fish promotes this part-time participation for those who do not want to travel long distances. Thus, elimination of permits with low levels of landings could eliminate full-time fishermen that are only part-time king mackerel fishermen because of their diversification.

**Alternatives 2 and 4** would eliminate or restrict permits with no king mackerel landings (**Option di**) or a low level of king mackerel landings (**Options dii-div**). Table 2.3.1 has estimates of the number of permits that would or would not meet the proposed landings thresholds. **Option a** for each alternative uses the entire time period from the beginning of limited access for king mackerel commercial permits (1998) to the most recent full year available (2011). Landings were compiled by calendar year because the Gulf and South Atlantic have two different fishing seasons, and obtaining the data by fishing year would involve a large amount of time. **Option b** uses the recent ten years with 2010 as the last year, because that is the year of the control date. **Option c** uses the recent five years with 2010 as the last year. **Options a-c, Suboption i** would determine qualification based on average landings over all years within the time period; **Options a-c, Suboption ii** would determine qualification based on meeting the threshold in only one of the years within the time period.

For **Alternative 2**, the least number of permits eliminated would be with **Option a, Suboption ii** paired with **Option d, Suboption i**. This would allow any permit to be retained if it has at least one year of king mackerel landings of any amount since 1998. However, using at least one year from the longest time period means that qualifying permits may not have had any landings for many years. The most number of permits eliminated would result from using a threshold of an average of 1,000 lbs king mackerel (**Option d, Suboption iv**), with over half of the current permits being revoked, regardless of the time period used. As stated earlier, the nature of this fishery is such that most participants only fish king mackerel part time, yet that participation may be a significant part of their annual income.

**Table 2.3.1.** Number of permits qualifying and not qualifying under combinations of time periods and thresholds from Alternatives 2 and 4. Permits are those that are valid or renewable as of June 19, 2012. The actual number and percentage of permits that would be affected would depend on the number of valid and renewable permits on the effective date of the rule.

Threshold (Option d)	1998-2011(Opt. a)			2001-2010 (Opt. b)			2006-2010 (Opt. c)		
	Qualify	Not	% eliminated/ restricted	Qualify	Not	% eliminated/ restricted	Qualify	Not	% eliminated/ restricted
Suboption i									
Avg $\geq$ 1 lb	1,441	58	4%	1,402	97	6%	1,319	180	12%
Avg $\geq$ 100 lb	1,246	253	17%	1,208	291	20%	1,115	384	26%
Avg $\geq$ 500 lb	938	561	37%	928	571	38%	878	621	41%
Avg $\geq$ 1000 lb	723	776	52%	727	772	52%	733	766	51%
Suboption ii									
At least 1 yr $\geq$ 1 lb	1,441	58	4%	1,402	97	6%	1,319	180	12%
At least 1 yr $\geq$ 100 lb	1,396	103	7%	1,343	156	10%	1,224	275	18%
At least 1 yr $\geq$ 500 lb	1,289	210	14%	1,218	281	19%	1,071	428	29%
At least 1 yr $\geq$ 1000 lb	1,186	313	21%	1,107	392	26%	954	545	36%

Source: SEFSC logbooks and SERO Permits database.

**Alternative 3** is based on the South Atlantic control date of September 17, 2010. Moving the date slightly to September 30, 2010, allows a full month to be used during analysis. The number of permits eliminated by this alternative cannot be calculated with the current data because landings are only available by calendar year.

**Alternative 4** was suggested by the South Atlantic Mackerel Advisory Panel. Members of the panel felt that some people might fish for other species but retain their king mackerel permit in case they have a bad year otherwise. They were reluctant to take away permits from people who had made the effort to renew those permits each year, especially for a fishery that is not overfished. At the same time, they did not want those permits sold to someone who might start fishing for king mackerel full-time. Allowing transfer of permits only to immediate family members (husband, wife, son, daughter, brother, sister, mother, or father) is consistent with the transferability requirements for king mackerel gillnet endorsements and snapper grouper limited access permits, which were established for the same reason. This alternative would allow permit holders to keep their permits while reducing the chance of a sudden increase in effort. Some additional transferability requirements would be included to be consistent with current requirements in the regulations: 1) allow transfer to another vessel owned by the same entity and 2) allow transfer from an individual to a corporation whose shares are all held by the individual

or by the individual and one or more of the following: husband, wife, son, daughter, brother, sister, mother, or father.

The options and suboptions for **Alternative 4** are the same as for **Alternative 2** with the exception of **Suboption e**. **Suboption e** would apply the landings threshold to landings of any species, not just king mackerel, but data are not available at this time to evaluate those thresholds. With the other options and suboptions, the percent eliminated in Table 2.3.1 would be the percent of permits with transfer restrictions, as described above.

### Appeals

If an alternative is chosen that eliminates or restricts permits, an appeals process would be established consistent with a process previously approved by the Councils. The appeals process provides a formalized process for resolving disputes regarding eligibility to retain king mackerel permits. In the past, the Council has implemented regulatory actions in a number of fisheries which have included an appeals process for eligibility determinations, e.g., Amendment 29 to the Gulf Reef Fish FMP and Amendment 18A to the South Atlantic Snapper Grouper FMP. In each of these instances, the Councils have utilized a virtually identical process. Because the process has been consistent and has worked well in different circumstances, the Gulf Council determined, without excessive consideration of other options for appeals, that the same process should be used when it established Gulf reef fish longline endorsements. Similarly, the process described in this section mirrors previously approved appeals processes.

Items subject to appeal are the accuracy of the amount of king mackerel landings and the correct assignment of landings to the permit owner. Appeals must contain documentation supporting the basis for the appeal and must be submitted to the Regional Administrator (RA) postmarked no later than 90 days after the effective date of the final rule that would implement Amendment 19. Appeals based on hardship factors will not be considered. The RA will review, evaluate, and render final decision on appeals. The RA will determine the outcome of appeals based on NMFS logbooks. Appellants must submit logbooks to support their appeal. Landings data for appeals would be based on logbooks submitted to and received by the SEFSC by a date to be determined, for the years chosen in the preferred alternative. If logbooks are not available, the RA may use state landings records. In addition, NMFS records of king mackerel permits constitute the sole basis for determining ownership of such permits.

### Council Conclusions:

## 2.4 Action 4 – Federal Regulatory Compliance

**Gulf Preferred Alternative 1:** No Action - All vessels with federal commercial king and/or Spanish mackerel permits, as well as CMP charter permits are subject to applicable federal CMP regulations when fishing in the EEZ, and are subject to applicable state CMP regulations when fishing in state waters.

**Alternative 2:** All vessels with federal commercial king and/or Spanish mackerel permits, as well as CMP charter/headboat permits, must comply with federal CMP regulations when fishing in state waters if the federal regulations are more restrictive.

**Alternative 3:** If a cobia permit is established in Action 2, all vessels with federal commercial cobia permits must comply with federal cobia regulations when fishing in state waters if the federal regulations are more restrictive.

*The IPT recommends removing this action if Alternative 1 is the preferred alternative for both Councils.*

### **Discussion:**

NMFS has implemented several fishery regulations through either interim measures or amendments to fishery management plans (FMPs) during the past several years that were not adopted and implemented by some Gulf states. These measures included recreational red grouper interim regulations in 2005, a recreational grouper closure in 2007, and recreational red snapper regulations in 2007 and 2008. In developing regulations, analyses for Council amendments and FMPs assume that the states will implement regulations that are consistent with proposed federal regulations. If the states do not implement compatible regulations, then projected reductions in harvest and fishing mortality may not occur, compromising the Council's ability to end overfishing and rebuild overfished stocks. The net result is that landings may exceed target levels, and future determinations of stock status may indicate overfishing is occurring. Although most king mackerel are predominantly caught outside of state territorial waters, catch in state waters can still be significant for Spanish mackerel and cobia. Additionally, more liberal regulations in state waters complicate law enforcement and may provide fishermen with an incentive to harvest greater amounts of fish, regardless of where the fish are caught.

NMFS has the authority to establish permit requirements and conditions for federal for-hire and commercial permit holders who choose to have a federal fishing permit and engage in the privilege of fishing. By requiring federal permit holders to comply with the more restrictive of state or federal CMP regulations when fishing in state waters, the probability of exceeding established management targets would be reduced and there would be an increased likelihood that overfishing is prevented. This is especially important given the mandates of the reauthorized Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), which require annual catch limits and accountability measures for species managed by the Councils.

**Gulf Preferred Alternative 1** would maintain status quo conditions and would not require commercial or for-hire vessels to abide by the more restrictive of state or federal regulations when fishing in state waters. As a result, the likelihood of quota overages would be increased, resulting in a higher likelihood of overfishing occurring, and possibly requiring more restrictive federal regulations. **Alternative 2** and **Alternative 3** (if a commercial permit is required to sell cobia) would require federally permitted vessels to abide by the more restrictive of state or federal regulations when fishing in state waters. This alternative would not affect private anglers, because NMFS does not currently require a recreational fishing permit and therefore does not have jurisdiction to establish permit conditions. NMFS does have the authority to establish permit requirements and conditions for federal for-hire and commercial permit holders who choose to have a federal fishing permit and engage in the privilege of fishing. By requiring federal permit holders to comply with the more restrictive of state or federal regulations when fishing in state waters, the probability of overages would be reduced and there would be an increased likelihood that overfishing is prevented.

**Council Conclusions:**



## 2.5 Action 5 – Modify or Eliminate Income Requirements for Gulf and South Atlantic Commercial Coastal Migratory Pelagic Permits

**Alternative 1:** No Action – Maintain existing income requirements for Gulf and South Atlantic commercial king and Spanish mackerel permits. To obtain or renew a commercial vessel permit for king or Spanish mackerel, at least 25% of the applicant’s earned income, or at least \$10,000, must have been derived from commercial fishing or from charter fishing during one of the three calendar years preceding the application.

**Alternative 2:** If established in Action 2, establish an income requirement for the cobia permit consistent with the requirements for Gulf and South Atlantic commercial king and Spanish mackerel permits. Maintain existing income requirements for Gulf and South Atlantic commercial king and Spanish mackerel permits.

**Gulf Preferred Alternative 3:** Eliminate income requirements for commercial king and Spanish mackerel permits.

**Alternative 4:** Modify the current income requirements to allow the Gulf or South Atlantic Council **to recommend suspension of** the renewal requirements by passage of a motion specifying: (a) the event or condition triggering the suspension; (b) the duration of the suspension; and (c) the criteria establishing who is eligible for the suspension. The affected Council would then request that the Regional Administrator suspend income requirements according to the terms outlined in the motion.

### **Discussion:**

Currently, the renewal of both king and Spanish mackerel commercial permits requires 25% of the applicant’s income to have come from fishing or \$10,000 from commercial or charter/headboat fishing activity in one of the three calendar years previous to the application. The renewal of commercial spiny lobster permit is the only other commercial permits issued by NMFS with an income requirement.

**Alternative 1** would maintain current income requirements for permit renewal. Applicants would continue to complete the Income Qualification Affidavit section on the Federal Permit Application for Vessels Fishing in the Exclusive Economic Zone as proof of meeting permit income qualification requirements for the king and/or Spanish mackerel vessel permits.

**Alternative 1** would not account for the fact that these requirements are relatively easy to meet and to circumvent.

**Alternative 2** is only necessary for consideration if the Councils create a separate commercial permit for cobia under **Action 2**. If the permit is created, **Alternative 2** proposes to implement a permit renewal requirement equivalent to the king and Spanish mackerel permits.



Elimination of the income requirement (**Gulf Preferred Alternative 3**) would afford more flexibility to fishermen and allow them to earn more income in other occupations. This added flexibility would allow some fishermen to renew their permits even if they did not have the opportunity to earn enough income from fishing. The ability to earn income from fishing could be restricted by several factors, including illness, environmental, natural or man-made disasters, and unforeseen personal circumstances.

Eliminating the existing income qualification requirements (**Gulf Preferred Alternative 3**) would eliminate other restrictions associated with the income qualification. The existing income qualification may be satisfied by a vessel operator rather than a vessel owner. However, satisfying the income qualification based on an operator's income places an additional restriction on the use of the permit. Such permits are only valid for use when the qualifying individual is actually operating the vessel and can only be transferred to that individual. Despite this restriction on the use of the permit to authorize fishing activities, the vessel owner is still considered the owner of the permit, and may remove the operator from the permit, subject to the owner meeting the income qualification by the end of the first full tax year after transfer or immediately adding another operator who can meet the income qualification. Removing the income qualification entirely eliminates the need for the additional restriction based on the vessel operator, because the vessel owner would be free to remove the operator from the permit without having to satisfy an income qualification and the permit would be freely transferable by the vessel owner.

Recent events including the Deep Horizon MC252 oil spill show the advantage of the Councils having a protocol for a temporary suspension of income requirements. **Alternative 4** would provide the Council with such a protocol, where the Councils would determine the events or condition that would trigger the suspension of income requirements, the length of the suspension, and the permit holders eligible for a temporary suspension of income requirements for commercial king and Spanish mackerel permits renewal, and cobia if created. Events and conditions that could warrant a temporary suspension of income requirements include oil spills and other man-made disasters, hurricanes and other natural disasters, and economic hardship. Determination of the length of a potential suspension of income requirements could consider issues such as the magnitude and duration of the adverse economic impacts that have already or could result from the disaster or conditions warranting the suspension. Geographical areas and/or categories of permit holders affected would constitute some of the considerations in the determination of eligibility criteria for a temporary suspension of income qualification requirements. It is important to note that **Alternative 4** is intended to apply to regional events that may impair the ability of commercial king or Spanish mackerel fishermen as a group from being able to meet the earned income requirements. **Alternative 4** is not designed to apply to individual fishermen who are unable to meet the requirement due to personal circumstances. **Alternative 4** would be redundant should the Councils decide to eliminate income requirement qualifications for commercial king and Spanish mackerel permit renewal (**Gulf Preferred Alternative 3**), but could be selected in addition to **Alternatives 1 or 2**.

### **Council Conclusions:**

## 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, Spanish mackerel, and cobia. 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 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). All landings are in whole weight.

#### 3.1.1 Description of the Fishery

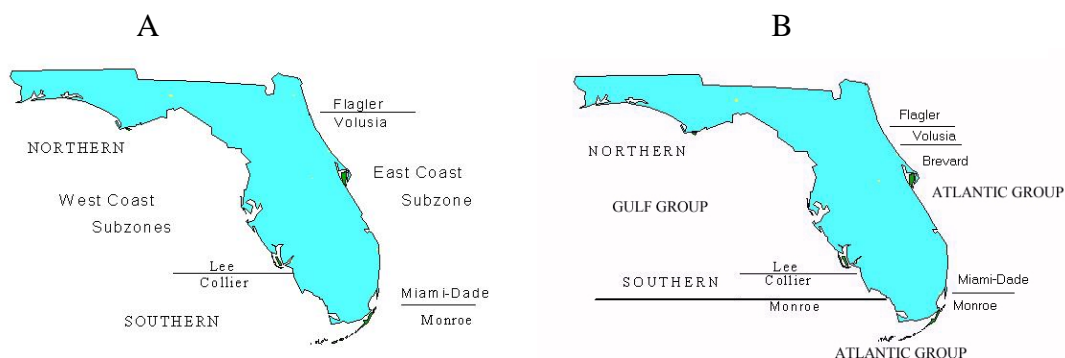
A detailed description of the coastal migratory pelagic (CMP) fishery was included in Amendment 18 to the Fishery Management Plan for Coastal Migratory Pelagic Resources in the Gulf of Mexico and Atlantic Region (FMP) (GMFMC and SAFMC 2011) and is incorporated here by reference. Amendment 18 can be found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

##### **King Mackerel**

A king mackerel commercial vessel permit is required to retain king mackerel in excess of the bag limit in the Gulf and Atlantic. These permits are under limited access. In addition, a limited-access gillnet endorsement is required to use gillnets in south Florida. 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 under 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 previous three calendar years. As of July 23, 2012, there were 1,495 valid or renewable federal 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 of 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 the hook-and-line sector 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. 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 Florida. The Atlantic migratory group of 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 recent three-year annual average was 3.6 mp versus 2.8 mp for the previous ten years (Table 3.1.1.1). Updates for recent years will be added in the next version of this amendment.

**Table 3.1.1.1.** Annual commercial landings of king mackerel.

Fishing Year	Landings (lbs x 1,000)	
	Gulf	Atlantic
1997-1998	3,582	3,532
1998-1999	4,017	3,691
1999-2000	3,173	3,585
2000-2001	3,163	2,716
2001-2002	2,965	2,431
2002-2003	3,267	2,083
2003-2004	3,290	2,228
2004-2005	3,418	3,523
2005-2006	3,174	3,149
2006-2007	3,260	3,838
2007-2008	3,935	3,503
2008-2009	4,025	3,770
2009-2010	3,870	3,727
2010-2011	3,550	3,466

Source: SEFSC, ALS database; NEFSC, CFDBS database

King mackerel have been a popular target for recreational fishermen for many years. Sixty-eight percent of the Gulf annual catch limit (ACL) and 62.9% of the Atlantic ACL is allocated to the recreational sector. From the late 1980s to the late 1990s, Gulf landings averaged about 4.9 mp per year. In the most recent ten years, average annual landings have been about 3.7 mp. The recent ten-year average for the Atlantic migratory group recreational landings is 4.2 mp per year (Table 3.1.1.2).

**Table 3.1.1.2.** Annual recreational landings of king mackerel.

Fishing Year	Landings (lbs x 1,000)	
	Gulf	Atlantic
2000-2001	3,617	5,474
2001-2002	4,197	4,404
2002-2003	4,554	2,761
2003-2004	3,881	4,192
2004-2005	3,213	4,613
2005-2006	3,944	3,485
2006-2007	4,459	4,054
2007-2008	3,471	6,080
2008-2009	3,146	3,487
2009-2010	2,391	3,885

Source: SEFSC; MRFSS, HBS, and TPW databases.

Note: 2009-2010 data as of June 25, 2010, and may not be fully complete.

### **Spanish Mackerel**

A commercial Spanish mackerel permit is required for vessels fishing in the Gulf or South Atlantic. This permit is open access. For-hire vessels must have a charter/headboat CMP permit. The commercial permit has an income requirement of 25% of earned income or \$10,000 from commercial or charter/headboat fishing activity in one of the previous three calendar years. As of July 23, 2012, there were 1,808 valid federal 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 zones: the Northern zone includes waters off New York through Georgia, and the Southern zone includes waters off the east coast of Florida. One quota is set for both zones, 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-March. 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 current Southeast Data, Assessment, and Review (SEDAR 28) divide the two migratory groups at the Council boundary (the line of demarcation between the Atlantic Ocean and the Gulf of Mexico), 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. Updates for recent years will be added in the next version of this amendment.

Commercial landings over the past five years have averaged 1.3 mp annually in the Gulf and 3.7 mp annually in the Atlantic. Commercial landings of Spanish mackerel fell sharply in 1995 after Florida implemented a constitutional amendment banning certain types of nets, but average landings then increased back to near historical levels (Table 3.1.1.3).

**Table 3.1.1.3.** Annual commercial landings of Spanish mackerel.

Fishing Year	Landings (lbs x 1,000)	
	Gulf	Atlantic
2000-2001	1,054	3,007
2001-2002	809	3,329
2002-2003	1,733	3,679
2003-2004	900	4,159
2004-2005	1,981	3,762
2005-2006	1,124	4,041
2006-2007	1,480	4,059
2007-2008	870	4,058
2008-2009	2,291	3,529
2009-2010	938	4,049
2010-2011	1,239	4,563

Source: SEFSC, ALS database; NEFSC, CFDBS database

\*For 99/00-04/05, the Atlantic fishing year is Apr-Mar; for 06/07-09/10, the fishing year is Mar-Feb.

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 ten fish in 1992 to 15 fish in 2000. Recreational landings in the Atlantic also have remained fairly steady over time and averaged around 1.6 mp during the 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.

Fishing Year	Landings (lbs x 1,000)	
	Gulf	Atlantic
2000-2001	2,782	2,280
2001-2002	3,553	2,034
2002-2003	3,172	1,605
2003-2004	2,738	1,846
2004-2005	2,663	1,365
2005-2006	1,589	1,649
2006-2007	2,837	1,653
2007-2008	2,717	1,711
2008-2009	2,529	2,047
2009-2010	1,890	2,108

Source: SEFSC, September 2010 ACL data sets; MRFSS, HBS, TPWD

### **Cobia**

Currently, no commercial vessel permit is required for cobia. Charter/headboats 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 in CMP 20 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	212,009	43,532
2001	177,866	40,791
2002	183,531	42,236
2003	194,832	35,305
2004	179,290	32,650
2005	136,851	28,675
2006	151,045	33,785
2007	147,188	31,576
2008	139,414	33,783
2009	137,304	42,278
2010	194,933	56,544

Source: SEDAR 28; ALS data

**Table 3.1.1.6.** Annual recreational landings of cobia.

Fishing Year	Landings (lbs)	
	Gulf	Atlantic
2000	1,508,490	464,236
2001	1,555,655	483,926
2002	1,227,709	381,849
2003	2,060,423	615,522
2004	2,090,424	1,028,231
2005	1,461,040	815,600
2006	1,572,637	1,231,415
2007	1,685,402	776,180
2008	1,312,126	546,297
2009	996,103	711,821
2010	1,317,728	876,505

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



### **Distribution of Fishing Activity**

Jurisdiction of the CMP fishery is divided between the federal and state governments. However, Spanish mackerel most commonly occur in state jurisdictional waters, and the majority of the commercial king mackerel sector also occurs primarily in state waters (ASMFC Fishery Management Report, Omnibus Amendment to the Interstate Fishery Management Plans for Spanish Mackerel, Spot, and Spotted Trout, 2012).

For purposes of the following discussion, the level of activity in the CMP fishery is divided into two mutually exclusive groups: those that harvest quantities of king mackerel and/or Spanish mackerel greater than the bag limits and those that harvest quantities of these species under the bag limits. The division does not apply to the taking of cobia because no one can harvest quantities of cobia greater than the possession limit. Vessels that take CMP in quantities under the bag limits are divided into three groups: commercial fishing vessels, charter vessels and headboats, and angler/recreational vessels.

Commercial fishermen who harvest king and/or Spanish mackerel in federal waters with a permit are limited by daily trip limits, except for those who harvest Spanish mackerel in federal waters of the Gulf where the daily catch is unlimited. Daily trip limits vary by location and gear and may be adjusted when landings reach 75% or another percent of the annual quota (Table 3.1.1.7).

**Table 3.1.1.7.** Commercial trip limits for king and Spanish mackerel.

Species	Migratory Group	Zone	Subzone	Gear/Fishery	Daily Trip Limit
King Mackerel	Atlantic	Mid & South Atlantic		Hook-&-Line	3,500 lbs
				Gillnet	3,500 lbs
	Gulf	Western		Hook-&-Line	3,000 lbs
				Hook-&-Line	50 fish <sup>1</sup>
		Eastern	East Coast	Hook-&-Line	1,250 lbs <sup>2</sup>
			West Coast: Northern	Hook-&-Line	1,250 lbs <sup>2</sup>
			West Coast: Southern	Gillnet	25,000 lbs
Spanish Mackerel	Atlantic	Northern			3,500 lbs
		Southern			3,500 lbs <sup>3</sup>
	Gulf				Unlimited

1. The daily trip limits increases to 75 fish on February 1 if less than 75% of the East Coast subzone quota is harvested prior to that date.

2. Trip limit is reduced to 500 lbs per day when 75% of the subzone's quota is harvested.

3. 3,500-lb trip limit begins March 1. Unlimited trip limits begins December 1 and continues until 75% of quota is harvested and trip limit is reduced to 1,500 lbs. Daily trip limits during the unlimited season vary by day of the week: unlimited from Monday through Friday and 1,500 lbs on Saturday and Sunday. In federal waters off Florida's east coast the trip limit is reduced to 500 lbs through March 31 if 100% of the adjusted quota is harvested.

The quantities of CMP that can be harvested within the bag limits are substantially less than those within the (commercial) trip limits. For example, the trip limit for king mackerel harvested in the mid-Atlantic and South Atlantic EEZ hook-and-line fishery is 3,500 lbs, as compared to the daily personal bag limit for the species, which is three king mackerel (Table 3.1.1.8). Any



vessel in the EEZ without a federal king mackerel or Spanish mackerel permit is restricted to these bag limits.

**Table 3.1.1.8.** Federal bag/possession limits for king mackerel, Spanish mackerel, and cobia.

Species	Migratory Group	Zone or Location	Daily Bag Limit (Number of Fish per Person)
King Mackerel	Atlantic	Mid Atlantic	3 <sup>1</sup>
		South Atlantic, except off Florida	3 <sup>1</sup>
		Off Florida	2 <sup>1</sup>
	Gulf	All	2 <sup>1</sup>
Spanish Mackerel	Atlantic	All	15
	Gulf	All	15
Cobia	Atlantic	All	2
	Gulf	All	2

<sup>1</sup> Persons on charter fishing trips longer than 24 hours may possess up to 2 bag limits.

A primary reason for a commercial vessel not having a federal king mackerel and/or Spanish mackerel permit is that the CMP fishery tends to be within state waters and the state does not require a federal permit to harvest quantities above the bag limits in its waters. Spanish mackerel most commonly occur in state jurisdictional waters, and the majority of the commercial king mackerel fishery also occurs primarily in state waters. If a vessel's area of operation is exclusively within state waters, a federal permit is an unnecessary and useless expense. However, other reasons for not having a king mackerel or Spanish mackerel permit may include the inability to satisfy the income or revenue requirement of obtaining the permit and/or the cost of obtaining a transferred or new commercial permit may be greater than the economic benefit of having said permit. A limited March 2012 online search of sales of existing king mackerel permits found asking prices ranging from \$5,800 to \$6,500. The cost of acquiring a new Spanish mackerel permit is \$25 plus time to complete the application, with its income requirement.

Another reason why a commercial vessel may not have a CMP permit is that it targets other species in the EEZ and may take CMP only in small quantities as bycatch. For example, king mackerel and Spanish mackerel are known to be bycatch in the shrimp trawl fishery. If kept by a commercial vessel without a CMP permit, their quantities cannot exceed the bag limits, and when landed and sold, these quantities count against the respective quotas. Cobia tends to be an incidental species and is most commonly captured in various hook and line fisheries, which account for more than 90 percent of the commercial landings. Other commercial gears that capture cobia include shrimp and fish trawls, fish traps and pots, pound nets, gill nets, cast nets, and spears.

If CMP are a commercial vessel's targeted species, however, it is unlikely that the vessel, without a federal king or Spanish permit, would go into the EEZ to catch those species when it could stay in state waters and not be restricted to catches under the bag limits. Most likely the operator of such a commercial vessel would never venture into federal waters to catch and sell just bag limit quantities, especially given the ex-vessel prices of king mackerel tend to be no greater than \$2 per pound, Spanish mackerel no more than \$1 per pound, and cobia no more than \$3 per pound. A commercial vessel without a federal king or Spanish mackerel permit fishing

in federal waters off Florida, for example, could take at the most 2 king mackerel per person, 15 Spanish mackerel per person, and 2 cobia per person during a trip.

A commercial trip that targets CMP and includes fishing in federal waters without a federal permit would require economic reasoning beyond just catching and selling CMP. One possible reason for operating in federal waters without a federal CMP permit could be to scout out areas within the EEZ where king mackerel are for an upcoming for-hire trip, particularly, if the vessel is used for commercial fishing in state waters and is permitted for charter fishing in the EEZ. For-hire fishing vessels must have either a Gulf or South Atlantic charter vessel/headboat CMP permit, depending on where they fish in the EEZ. The Gulf permit is a limited access permit, while the South Atlantic permit is an open access permit. Each charter/headboat permit allows for the for-hire fishing vessel to be used to catch any CMP species in quantities no greater than the recreational bag/possession limits in federal waters. Some vessels may have both federal charter vessel/headboat and federal king and/or Spanish mackerel permits. When a vessel is operating as a charter vessel or headboat, a person aboard must adhere to the recreational bag limits. The quantities of CMP species kept by a for-hire vessel are dependent on the size of the bag limits and number of persons onboard during the trip. So, for example, if 10 persons are aboard during a for-hire trip (including crew) off Florida that is no more than 24 hours long, no more than 20 king mackerel, 150 Spanish mackerel, and 20 cobia can be landed and sold. As of July 23, 2012, there were 1,348 valid or renewable federal Gulf charter/headboat CMP vessel permits and 1,550 valid federal South Atlantic CMP charter/headboat permits.

Private recreational fishing vessels must be registered in their state or documented by the USCG. Saltwater anglers aboard these vessels must be registered with the National Saltwater Angler Registry or licensed in their exempted state in order to fish for CMP in the EEZ.

All states require a commercial fishing license to sell CMP landed in their waters. Texas requires an additional permit beyond a commercial fishing license to bring any fish taken in the EEZ into state waters.

Operators of commercial fishing vessels with a federal king mackerel and/or Spanish mackerel permit and who are commercially licensed in a state can land and sell quantities of these species greater than the respective bag limits (and under quota). At the same time, operators of fishing vessels without one of these federal permits, but who are licensed to fish commercially by a state, can also land and sell quantities of these species greater than the bag limits, provided any quantities of king and/or Spanish mackerel harvested over the bag limits are taken in state waters and the state where these species are landed does not require the corresponding federal permits. Alabama requires both the federal king and Spanish mackerel permits to possess and land quantities above the bag limits, and Florida requires a federal king mackerel permit to possess or land quantities of the species above the bag limits (Table 3.1.1.9). None of the other states requires a federal permit to land and sell quantities above the bag limits; however, they all require a state-issued commercial fishing license.

**Table 3.1.1.9.** State requirements to land and sell quantities of CMP above bag limits.

<b>State</b>	<b>License/Permit Requirements to Land and Sell Quantities Above Bag</b>
<b>Alabama</b>	Federal king mackerel permit, federal Spanish mackerel permit, commercial fishing license
<b>Florida</b>	Federal king mackerel permit, commercial vessel registration, saltwater products license, restricted species endorsement
<b>Georgia</b>	Commercial fishing license and commercial boat license
<b>Louisiana</b>	Commercial fishing license and commercial boat license
<b>Mississippi</b>	Commercial fishing license and commercial boat license
<b>North Carolina</b>	Standard commercial fisherman license & commercial vessel registration or recreational fishing tournament license
<b>South Carolina</b>	Commercial saltwater fishing license
<b>Texas</b>	General commercial fishing license, commercial fishing boat license

In North Carolina there are recreational fishermen who have a standard commercial fisherman license (SCFL) in order to exceed the bag limits, such as for king mackerel, but do not sell their catch. Because these fish are not being sold, they are not being captured by the Trip Ticket Program. At the beginning of 2012, there were 3,500 people paying \$200 a year for the SCFL and not using it to sell fish. It is unknown if these 3,500 individuals are catching fish or not and, if so, in what quantities. Some recreational fishermen that hold a SCFL do sell their catch to cover the cost of their fishing trip (North Carolina Marine Fisheries Commission, Define a Commercial Fisherman Committee Report, January 2012). Currently North Carolina is considering a requirement that all individuals who held a SCFL during the 2010 license year that had no recorded sales transactions be required to have at least 12 days of documented fishing activity within a three-year time period in order to renew their licenses. There may be recreational fishermen in other states who possess a commercial license in order to exceed the bag limits and do not sell their catch.

The sale of CMP species by charter/headboat operators with a state commercial permit, saltwater product licenses, restricted species endorsement or some other specific license to sell regulated finfish is an historical practice and method of supplementing income in a seasonal business. Often passengers give their catches to the captain and/or crew who sell those fish. Hence, charter/headboat captains and crew participate in the commercial fisheries sector as sellers of fish, although the anglers onboard their vessels harvest these fish under federal recreational bag limits. Some fishing vessels have dual permits, operating as charter/headboats for some fishing trips and as commercial vessels for other trips. Sales of fish caught during a charter fishing trip under the recreational bag limit(s) are permissible if the operator has or crew have sufficient state licenses to sell the catch. These bag-limit sales are counted against the quota, although the fish are caught by recreational fishermen onboard a for-hire vessel.

Illegal sales of CMP have been found. In 2009, the Florida Fish and Wildlife Conservation Commission charged businesses that operated six charter fishing boats with illegally selling king mackerel (<http://freerepublic.com/focus/f-news/2406062/posts>). Boats were cited for not reporting the kingfish that were sold and not having the necessary license and restricted species endorsement to sell the fish.

### 3.1.2 Status of Stocks

Spanish mackerel and cobia benchmark assessments are ongoing (SEDAR 28) and are scheduled to be completed by the end of 2012 or early 2013. A king mackerel benchmark assessment is scheduled for 2013 (SEDAR 39).

#### **King Mackerel**

Both the Gulf and Atlantic migratory groups of king mackerel were assessed by SEDAR in 2008 (SEDAR 16). The 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  $F_{\text{current}}/F_{\text{MSY}}$  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 latest assessment for Gulf migratory group Spanish mackerel was conducted in 2003, and for Atlantic migratory group Spanish mackerel in 2008 (SEDAR 17). In the Atlantic, estimates of stock biomass have more than doubled since 1995. In the Gulf of Mexico, biomass has also continued to increase. MSAP (2003) determined that Gulf migratory group Spanish mackerel were not overfished or undergoing overfishing with only a 9% chance that overfishing was occurring and only a 3% chance that the stock was overfished. SEDAR 17 determined Atlantic migratory group Spanish mackerel was not undergoing overfishing, but the overfished status could not be determined.

#### **Cobia**

Cobia in the Atlantic have never been assessed; the status of Gulf cobia was assessed in 2001 (Williams 2001). The Gulf assessment was inconclusive in determining the status of the Gulf cobia stock; however Williams (2001) stated that “fishing mortality in the last few years has decreased slightly with all the point estimates of  $F_{2000}/F_{\text{MSY}}$  falling below 1.0.” Although the mackerel stock assessment panel (MSAP 2001) concluded that the Gulf cobia stock was undergoing overfishing, this conclusion was based on the assumption of a natural mortality value of 0.3 and a percentage probability of  $F_{2000} > F_{\text{MSY}}$  of no more than 30%. The natural mortality rate for cobia is unknown, and the choice of natural mortality rate greatly affected the outcome of the assessment (Williams 2001 assessed values of 0.2, 0.3, and 0.4). Also the Gulf Council’s approved definition of overfishing is a probability that  $F_{\text{current}}/F_{\text{MSY}}$  is greater than 50%. Consequently, the most likely conclusion is that the stock is not undergoing overfishing.

The 2001 Gulf cobia assessment was able to conclude with some certainty that the cobia population had increased in abundance since the 1980s (Williams 2001). Furthermore, the MSAP (2001) noted that there was only a 30% probability that  $B_{2000} < B_{\text{MSY}}$ . Consequently, the most likely conclusion is that the stock is not overfished.

## 3.2 Description of the Physical Environment

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

### 3.2.1 Gulf of Mexico

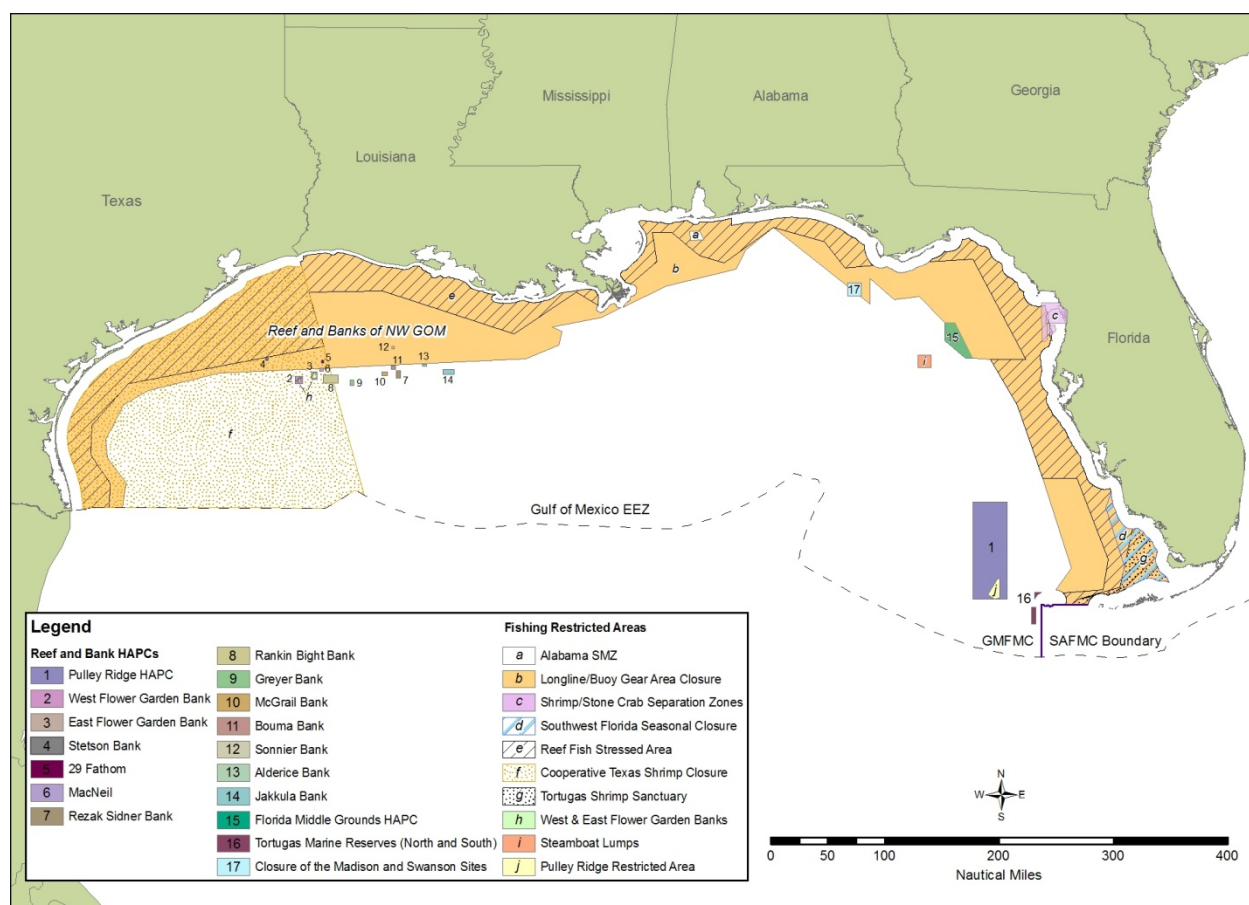
The Gulf has a total area of approximately 600,000 square miles (1.5 million km<sup>2</sup>), including state waters (Gore 1992). It is a semi-enclosed, oceanic basin connected to the Atlantic Ocean by the Straits of Florida and to the Caribbean Sea by the Yucatan Channel. Oceanic conditions are primarily affected by the Loop Current, the discharge of freshwater into the Northern Gulf, and a semi-permanent, anticyclonic gyre in the western Gulf. Gulf water temperatures range from 12° C to 29° C (54° F to 84° F) depending on time of year and depth of water.

The Madison/Swanson and Steamboat Lumps Marine Reserves (219 square nautical miles), which are no-take marine reserves where all fishing except for surface trolling during May through October is prohibited (Figure 3.2.1.1). The Tortugas North and South Marine Reserves are no-take marine reserves cooperatively implemented by Florida, NOAA's National Ocean Service (NOS), the Gulf of Mexico Fishery Management Council (Gulf Council), and the National Park Service (185 square nautical miles). In addition, essential fish habitat (EFH) requirements, habitat areas of particular concern (HAPC), and adverse effects of fishing prohibited the use of anchors in these HAPCs were addressed in the following Gulf Council Fishery Management Plans: Shrimp, Red Drum, Reef Fish, Coral and Coral Reefs in the Gulf, and Spiny Lobster and the Coastal Migratory Pelagic resources of the Gulf and South Atlantic (GMFMC 2005).

Individual reef areas and bank HAPCs of the northwestern Gulf containing pristine coral areas are protected by preventing use of some fishing gear that interacts with the bottom. These areas are: 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 (Figure 3.2.1.1; 263.2 square nautical miles). Some of these areas were made marine sanctuaries by NOS and these marine sanctuaries are currently being revised. 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 the significant coral resources on Stetson Bank.

Other environmental sites of special interest relevant to CMP species in the Gulf include the Florida Middle Grounds HAPC, where pristine soft corals are protected from use of any fishing gear interfacing with bottom (348 square nautical miles), and the Pulley Ridge HAPC, which is closed to anchoring, trawling gear, bottom longlines, buoy gear, and all traps/pots to protect deepwater hermatypic coral reefs (2,300 square nautical miles). In addition, fishing by a vessel operating as a charter vessel or headboat, a vessel in the Alabama special management zone that does not have a commercial permit for Gulf reef fish, or a vessel with such a permit fishing for Gulf reef fish, is limited to hook-and-line gear with no more than three hooks. Nonconforming gear is restricted to bag limits, or for reef fish without a bag limit, to 5% by weight of all fish aboard.





**Figure 3.2.1.1.** Environmental Sites of Special Interest Relevant to CMP Species in the Gulf of Mexico.

## 3.2.2 South Atlantic

The South Atlantic Fishery Management Council (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 square km (Menzel 1993). Based on physical oceanography and geomorphology, this environment can be divided into two regions: Dry Tortugas, Florida, to Cape Canaveral, Florida, and Cape Canaveral, Florida, to Cape Hatteras, North Carolina. The continental shelf from the Dry Tortugas, Florida, to Miami, Florida, is approximately 25 km wide and narrows to approximately 5 km off Palm Beach, Florida. The shelf then broadens to approximately 120 km off 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 dominates the physics of the entire shelf (Lee et al. 1994).

In the northern region, additional physical processes are important and the shelf environment can be subdivided into three oceanographic zones (Atkinson et al. 1985; Menzel 1993), the outer shelf, mid-shelf, and inner shelf. The outer shelf (40-75 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.

Spatial and temporal variation in the position of the western boundary current has dramatic affects on water column habitats. Variation in the path of the Florida Current near the Dry Tortugas induces formation of the Tortugas Gyre (Lee et al. 1992 and 1994). This cyclonic eddy has horizontal dimensions on the order of 100 km and may persist in the vicinity of the Florida Keys for several months. The Pourtales Gyre, which has been found to the east, is formed when the Tortugas Gyres moves eastward along the shelf. Upwelling occurs in the center of these gyres, thereby adding nutrients to the near surface (<100 m) water column. Wind and input of Florida Bay water also influence the water column structure on the shelf off the Florida Keys (Smith 1994; Wang et al. 1994). Further downstream, the Gulf Stream encounters the “Charleston Bump”, a topographic rise on the upper Blake Ridge where the current is often deflected offshore resulting in the formation of a cold, quasi-permanent cyclonic gyre and associated upwelling (Brooks and Bane 1978). On the continental shelf, offshore projecting shoals at Cape Fear, North Carolina, Cape Lookout, North Carolina, and Cape Hatteras, North Carolina affect longshore coastal currents and interact with Gulf Stream intrusions to produce local upwelling (Blanton et al. 1981; Janowitz and Pietrafesa 1982). Shoreward of the Gulf Stream, seasonal horizontal temperature and salinity gradients define the mid-shelf and inner-shelf fronts. In coastal waters, river discharge and estuarine tidal plumes contribute to the water column structure.

The water column from Dry Tortugas, Florida, to Cape Hatteras, North Carolina, serves as habitat for many marine fish and shellfish. Most marine fish and shellfish release pelagic eggs when spawning and thus, most species utilize the water column during some portion of their early life history (Leis 1991; Yeung and McGowan 1991). 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.

### **3.3 Description of the Biological/Ecological Environment**

A description of the biological environment for CMP species is provided in Amendment 18 (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. There have been no observed fish kills from the oil spill in federal waters. 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 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 fishery management plan 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 coastal migratory pelagic fish will 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 felt 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 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. 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 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. NOAA, 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 exclusive economic zone (EEZ) to all fishing [75 FR 24822] 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 are among the most important commercial and sport fishes. The habitat of adults in the coastal pelagic management unit is the coastal waters out to the edge of the continental shelf in the Atlantic Ocean. Within the area, the occurrence of coastal migratory pelagic 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 ppt. Salinity preference of little tunny and cobia is not well defined. The habitat for eggs and larvae of all species in the coastal pelagic management unit is the water column. Within the spawning area, eggs and larvae are concentrated in the surface waters.

### **King Mackerel**

King mackerel is a marine pelagic species that is found throughout the Gulf of Mexico and Caribbean Sea and along the western Atlantic from the Gulf of Maine to Brazil and from the shore to 200 meter 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 75 meters throughout the coastal zones of the western Atlantic from southern New England to the Florida Keys and throughout the Gulf of Mexico (Collette and Russo 1979). Adults usually are found from the low-tide line to the edge of the continental shelf, and along coastal areas. They inhabit estuarine areas, especially the higher salinity areas, during seasonal migrations, but are considered rare and infrequent in many Gulf estuaries.

### **Cobia**

The cobia is a member of the family Rachycentridae but is managed in the CMP FMP because of its migratory behavior. The cobia is distributed worldwide in tropical, subtropical and warm-temperate waters. In the western Atlantic Ocean it occurs from Nova Scotia, Canada, south to Argentina, including the Caribbean Sea. It is abundant in warm waters off the coast of the U.S. from the Chesapeake Bay south and throughout the Gulf of Mexico. Cobia prefer water temperatures between 68°-86°F. Seeking shelter in harbors and around wrecks and reefs, the 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. The 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, and 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 in) in length and usually occurs by the time they are 800 mm (35.4 in) in length. Stage five ovaries, which are the most mature, are found in females by about age 4. Males are usually sexually mature at age 3, at a length of 718 mm (28.3 in). Females in U.S. waters, between the sizes of 446-1,489 mm (17.6 to 58.6 in) release 69,000-12,200,000 eggs. Because both the

Atlantic and Gulf populations spawn while in the northernmost parts of their ranges, there is some thought that they are reproductively isolated groups.

Larvae of the king mackerel have been found in waters with temperatures between 26-31° C (79-88° F). This developmental and has a short duration. King mackerel can grow up to 0.02 to 0.05 inches (0.54-1.33 mm) 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 to about 84 meters, but are most common in < 50 meters.

### **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 of Mexico 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 to spawn 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 (to < 9 m) 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 in the northern Gulf in the summer. 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/SAFMC 1985; MSAP 1996; Brooks and Ortiz 2004).

### **Spanish Mackerel**

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

### **Cobia**

Newly hatched larvae are 2.5 mm 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 in), with a maximum of 200 cm (79 in). 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. 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.

## 3.4 Description of the Economic Environment

### 3.4.1 Economic Description of the Commercial Fishery

#### Number of Vessels, Harvest, and Ex-vessel Value

An economic description of the commercial fisheries for the CMP species is contained in Vondruska (2010) and is incorporated herein by reference. Select summary statistics are provided in Table 3.4.1.1. Landings information is provided in Section 1.7.

**Table 3.4.1.1.** Five-year average performance statistics, including number of vessels landing each species, value of the species for those vessels, value of all species for those vessels, and the average value for those vessels.

Column 1 - Species	Vessels	Ex-vessel Value <sup>2</sup> Species from Column 1 (millions)	Ex-vessel Value All Species (millions)	Average Ex-vessel Value per Vessel
Atlantic Migratory group King Mackerel	742	\$4.57	\$23.41	\$31,600
Atlantic Migratory group Spanish Mackerel	349	\$1.85	\$9.76	\$28,000
Gulf Migratory group King Mackerel	669	\$4.99	\$29.48	\$44,100
Gulf Migratory group Spanish Mackerel	197	\$0.31	\$9.00	\$45,900
Cobia (whole Southeast)	689	\$0.27	\$56.20	\$81,700

<sup>1</sup>Fishing-year (2004/2005, 2005/2006,..., 2008/2009) for king and Spanish mackerel and calendar year (2005-2009) for cobia.

<sup>2</sup>2008 dollars.

Source: NMFS SEFSC Coastal Fisheries Logbook and NMFS NEFSC Commercial Fisheries Data Base System

## Economic Activity

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 (2009c) and are provided in Table 3.4.1.2. Business activity for the commercial sector is characterized in the form of full-time equivalent (FTE) 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.

As noted in Table 3.4.1.1, the annual period refers to either the fishing year or calendar 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 are replicated from Table 3.4.1.1.

**Table 3.4.1.2.** Average annual economic activity associated with the CMP fisheries.

Species	Average Ex-vessel Value <sup>1</sup> (millions)	Total Jobs	Harvester Jobs	Output (Sales) Impacts (millions)	Income Impacts (millions)
Atlantic Migratory group King Mackerel	\$4.57	862	112	\$60.21	\$25.66
- All Species <sup>2</sup>	\$23.41	4,412	576	\$308.26	\$131.38
Atlantic Migratory group Spanish Mackerel	\$1.85	348	45	\$24.31	\$10.36
- All Species	\$9.76	1,840	240	\$128.52	\$54.77
Gulf Migratory group King Mackerel	\$4.99	941	123	\$65.72	\$28.01
- All Species	\$29.48	5,556	725	\$388.17	\$165.43
Gulf Migratory group Spanish Mackerel	\$0.31	59	8	\$4.10	\$1.75
- All Species	\$9.00	1,697	221	\$118.56	\$50.53
Cobia (All Southeast)	\$0.27	50	6	\$3.53	\$1.50
- All Species	\$56.20	10,560	1,355	\$741.68	\$314.28

<sup>1</sup>2008 dollars.

<sup>2</sup>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 January 21, 2011, are provided in Table 3.4.1.3

**Table 3.4.1.3.** Number of permits associated with the CMP fishery.

	Valid <sup>1</sup>	Valid or Renewable
King Mackerel	1,452	1,530
King Mackerel Gillnet	21	23
Spanish Mackerel	1,704	Not applicable

<sup>1</sup>Non-expired. Expired permits may be renewed within one year of expiration.

## 3.4.2 Economic Description of the Recreational Fishery

The recreational fishery is comprised of the private sector and for-hire sector. The private sector includes anglers fishing from shore (all land-based structures) and private/rental boats. The for-hire sector is composed of the charterboat and headboat (also called partyboat) sectors. Charterboats 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 1.7.

## Effort

Recreational effort derived from the MRFSS database 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 intercepted 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 recreational trips taken, regardless of target intent or catch success.

Estimates of average annual recreational effort, 2005-2009, for the CMP species addressed in this amendment are provided in Table 3.4.2.1. 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 or 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 king mackerel than catch the species.

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, both species, as well as cobia, are subject to more target effort than catch effort. West 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 of Mexico, across all modes, 2005-2009.

	Target Trips					
Species	Alabama	W Florida	Louisiana	Mississippi	Total	All Trips
King Mackerel	50	425	2	3	480	23,288
Spanish Mackerel	48	753	0	0	801	
Cobia	9	177	13	10	210	
	Catch Trips					
King Mackerel	49	270	7	3	329	23,288
Spanish Mackerel	63	1,011	30	11	1,115	
Cobia	7	72	19	3	101	

Source: MRFSS, NOAA Fisheries, NMFS, SERO.

**Table 3.4.2.2.** Average annual (calendar year) recreational effort (thousand trips) in the South Atlantic, across all modes, 2005-2009.

	Target Trips					
	E Florida	Georgia	North Carolina	South Carolina	Total	All Trips
King Mackerel	423	11	214	100	748	22,419
Spanish Mackerel	189	6	254	63	512	
Cobia	96	3	53	18	171	
	Catch Trips					
King Mackerel	333	7	99	24	462	22,419
Spanish Mackerel	255	9	192	50	507	
Cobia	30	2	15	5	53	

Source: MRFSS, NOAA Fisheries, NMFS, SERO.

**Table 3.4.2.3.** Average annual (calendar year) recreational effort (thousand trips) in the Gulf of Mexico, across all states, 2005-2009.

	Target Trips				
	Shore	Charter	Private	Total	All Trips
King Mackerel	191	31	257	480	23,288
Spanish Mackerel	500	12	288	801	
Cobia	88	9	112	210	
	Catch Trips				
King Mackerel	56	106	167	329	23,288
Spanish Mackerel	489	44	581	1,115	
Cobia	10	14	76	101	

Source: MRFSS, NOAA Fisheries, NMFS, SERO.

**Table 3.4.2.4.** Average annual (calendar year) recreational effort (thousand trips) in the South Atlantic, across all states, 2005-2009.

	Target Trips				
	Shore	Charter	Private	Total	All Trips
King Mackerel	109	34	605	748	22,419
Spanish Mackerel	229	6	277	512	
Cobia	32	3	136	171	
	Catch Trips				
King Mackerel	12	73	376	462	22,419
Spanish Mackerel	178	18	311	507	
Cobia	6	5	42	53	

Source: MRFSS, NOAA Fisheries, NMFS, SERO.

Tables 3.4.2.5-12 contain estimates of the average annual (2005-2009) 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, 2005-2009.

	Shore		Charter		Private		Total	
	Target	Catch	Target	Catch	Target	Catch	Target	Catch
King Mackerel	7	2	3	10	40	37	50	49
Spanish Mackerel	21	17	1	5	26	41	48	63
Cobia	0	0	1	0	9	7	9	7

Source: MRFSS, NOAA Fisheries, NMFS, SERO.

**Table 3.4.2.6.** Average annual (calendar year) recreational effort (thousand trips), West Florida, 2005-2009.

	Shore		Charter		Private		Total	
	Target	Catch	Target	Catch	Target	Catch	Target	Catch
King Mackerel	184	55	28	92	213	124	425	270
Spanish Mackerel	479	465	11	32	262	513	753	1,011
Cobia	88	10	4	7	86	56	177	72

Source: MRFSS, NOAA Fisheries, NMFS, SERO.

**Table 3.4.2.7.** Average annual (calendar year) recreational effort (thousand trips), Louisiana, 2005-2009.

	Shore		Charter		Private		Total	
	Target	Catch	Target	Catch	Target	Catch	Target	Catch
King Mackerel	0	0	0	3	1	4	2	7
Spanish Mackerel	0	7	0	2	0	22	0	30
Cobia	0	0	5	7	8	11	13	19

Source: MRFSS, NOAA Fisheries, NMFS, SERO.

**Table 3.4.2.8.** Average annual (calendar year) recreational effort (thousand trips), Mississippi, 2005-2009.

	Shore		Charter		Private		Total	
	Target	Catch	Target	Catch	Target	Catch	Target	Catch
King Mackerel	0	0	0	1	3	2	3	3
Spanish Mackerel	0	0	0	5	0	6	0	11
Cobia	0	0	0	0	10	2	10	3

Source: MRFSS, NOAA Fisheries, NMFS, SERO.

**Table 3.4.2.9.** Average annual (calendar year) recreational effort (thousand trips), East Florida, 2005-2009.

	Shore		Charter		Private		Total	
	Target	Catch	Target	Catch	Target	Catch	Target	Catch
King Mackerel	21	11	26	52	377	270	423	333
Spanish Mackerel	124	118	1	2	64	134	189	255
Cobia	9	2	2	4	86	25	96	30

Source: MRFSS, NOAA Fisheries, NMFS, SERO.

**Table 3.4.2.10.** Average annual (calendar year) recreational effort (thousand trips), Georgia, 2005-2009.

	Shore		Charter		Private		Total	
	Target	Catch	Target	Catch	Target	Catch	Target	Catch
King Mackerel	0	0	0	1	11	6	11	7
Spanish Mackerel	2	2	0	1	4	6	6	9
Cobia	0	0	0	0	3	2	3	2

Source: MRFSS, NOAA Fisheries, NMFS, SERO.



**Table 3.4.2.11.** Average annual (calendar year) recreational effort (thousand trips), North Carolina, 2005-2009.

	Shore		Charter		Private		Total	
	Target	Catch	Target	Catch	Target	Catch	Target	Catch
King Mackerel	45	1	3	16	165	82	214	99
Spanish Mackerel	64	34	2	10	187	148	254	192
Cobia	23	4	1	1	30	10	53	15

Source: MRFSS, NOAA Fisheries, NMFS, SERO.

**Table 3.4.2.12.** Average annual (calendar year) recreational effort (thousand trips), South Carolina, 2005-2009.

	Shore		Charter		Private		Total	
	Target	Catch	Target	Catch	Target	Catch	Target	Catch
King Mackerel	43	1	5	5	53	18	100	24
Spanish Mackerel	39	23	2	5	21	22	63	50
Cobia	1	0	0	0	17	5	18	5

Source: MRFSS, NOAA Fisheries, NMFS, SERO.

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.

The average annual (2005-2009) 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, while the total (across all states) average number of headboat angler days has been more stable from 2005-2009 in the Gulf, more headboat effort normally occurs in the South Atlantic.

**Table 3.4.2.13.** Southeast headboat angler days, 2005-2009.

	Gulf of Mexico			
	Louisiana	Texas	W Florida/ Alabama	Total
2005	0	59,857	130,233	190,090
2006	5,005	70,789	124,049	199,843
2007	2,522	63,764	136,880	203,166
2008	2,945	41,188	130,176	174,309
2009	3,268	50,737	142,438	196,443
Average	2,748	57,267	132,755	192,770
	South Atlantic			
	E Florida/ Georgia	North Carolina	South Carolina	Total
2005	171,078	31,573	34,036	236,687
2006	175,522	25,736	56,074	257,332
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
Average	152,858	24,552	47,809	225,219

Source: The Headboat Survey, NOAA Fisheries, SEFSC, Beaufort Lab.

### Permits

The numbers of pelagic for-hire (charter or headboat) permits on January 21, 2011, are provided in Table 3.4.2.14. There are no specific permitting requirements for recreational anglers to harvest coastal migratory pelagic 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.

**Table 3.4.2.14.** Number of pelagic for-hire (charter or headboat) permits.

	Valid <sup>1</sup>	Valid or Renewable
Gulf of Mexico	1,260	1,377
Gulf Historical Captain	36	44
South Atlantic	1,467	Not applicable

<sup>1</sup>Non-expired. Expired permits may be renewed within one year of expiration.

### **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 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., NMFS SEFSC, personal communication, August 2010). These estimates were culled from several studies – Liese et al. (2009), 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 east 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 charterboats. 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 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.

Estimates of the economic activity (impacts) associated with the recreational fishery 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 FTE jobs, income impacts (wages, salaries, and self-employed income), output (sales) 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 (2005-2009) 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 (2005-2009) target trips and catch 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 (27,535 trips) was only approximately 13% of the number of private trips (213,641), whereas the estimated output (sales) impacts by the charter anglers

(approximately \$8.6 million) was approximately 89% of the output impacts of the private trips (approximately \$9.7 million).

**Table 3.4.2.15.** Summary of king mackerel target trips (2005-2009 average) and associated economic activity (2008 dollars), Gulf states. Output and value added impacts are not additive.

	Alabama	W Florida	Louisiana	Mississippi	Texas
	Shore Mode				
Target Trips	6,972	184,444	0	0	Unknown
Output Impact	\$510,060	\$12,499,596	\$0	\$0	
Value Added Impact	\$274,383	\$7,261,856	\$0	\$0	
Jobs	6	133	0	0	
	Private Mode				
Target Trips	39,581	213,461	1,312	2,608	Unknown
Output Impact	\$2,302,878	\$9,691,420	\$106,992	\$74,376	
Value Added Impact	\$1,260,774	\$5,762,882	\$52,622	\$35,646	
Jobs	24	97	1	1	
	Charter Mode				
Target Trips	3,336	27,535	457	122	Unknown
Output Impact	\$1,736,893	\$8,646,173	\$217,556	\$37,906	
Value Added Impact	\$956,101	\$5,126,290	\$123,528	\$21,360	
Jobs	23	89	2	0	
	All Modes				
Target Trips	49,889	425,440	1,769	2,730	Unknown
Output Impact	\$4,549,831	\$30,837,189	\$324,547	\$112,282	
Value Added Impact	\$2,491,258	\$18,151,028	\$176,150	\$57,006	
Jobs	54	318	3	1	

Source: effort data from the MRFSS, economic activity results calculated by NMFS SERO using the model developed for NMFS (2009c).

**Table 3.4.2.16.** Summary of king mackerel target trips (2005-2009 average) and associated economic activity (2008 dollars), South Atlantic states. Output and value added impacts are not additive.

	North Carolina	South Carolina	Georgia	E Florida
	Shore Mode			
Target Trips	45,057	43,054	0	20,543
Output Impact	\$11,285,263	\$4,384,103	\$0	\$586,864
Value Added Impact	\$6,284,247	\$2,441,172	\$0	\$340,707
Jobs	136	54	0	6
	Private Mode			
Target Trips	165,432	52,675	10,542	376,517
Output Impact	\$9,029,852	\$2,317,598	\$164,705	\$14,238,046
Value Added Impact	\$5,091,654	\$1,352,287	\$99,907	\$8,507,989
Jobs	97	26	1	150
	Charter Mode			
Target Trips	3,297	4,597	262	25,958
Output Impact	\$1,283,468	\$1,550,235	\$16,470	\$10,172,982
Value Added Impact	\$720,285	\$875,819	\$9,613	\$5,989,121
Jobs	16	20	0	105
	All Modes			
Target Trips	213,786	100,326	10,804	423,018
Output Impact	\$21,598,582	\$8,251,936	\$181,176	\$24,997,893
Value Added Impact	\$12,096,185	\$4,669,279	\$109,520	\$14,837,816
Jobs	250	100	2	261

Source: effort data from the MRFSS, economic activity results calculated by NMFS SERO using the model developed for NMFS (2009c).

**Table 3.4.2.17.** Summary of Spanish mackerel target trips (2005-2009 average) and associated economic activity (2008 dollars), Gulf states. Output and value added impacts are not additive.

	Alabama	W Florida	Louisiana	Mississippi	Texas
	Shore Mode				
Target Trips	20,894	478,844	0	0	Unknown
Output Impact	\$1,528,570	\$32,450,807	\$0	\$0	
Value Added Impact	\$822,282	\$18,852,855	\$0	\$0	
Jobs	19	344	0	0	
	Private Mode				
Target Trips	25,808	262,403	0	115	Unknown
Output Impact	\$1,501,546	\$11,913,453	\$0	\$3,280	
Value Added Impact	\$822,062	\$7,084,186	\$0	\$1,572	
Jobs	16	119	0	0	
	Charter Mode				
Target Trips	1,166	11,324	0	0	Unknown
Output Impact	\$607,079	\$3,555,811	\$0	\$0	
Value Added Impact	\$334,177	\$2,108,230	\$0	\$0	
Jobs	8	37	0	0	
	All Modes				
Target Trips	47,868	752,571	0	115	Unknown
Output Impact	\$3,637,196	\$47,920,072	\$0	\$3,280	
Value Added Impact	\$1,978,521	\$28,045,271	\$0	\$1,572	
Jobs	43	500	0	0	

Source: effort data from the MRFSS, economic activity results calculated by NMFS SERO using the model developed for NMFS (2009c).

**Table 3.4.2.18.** Summary of Spanish mackerel target trips (2005-2009 average) and associated economic activity (2008 dollars), South Atlantic states. Output and value added impacts are not additive.

	North Carolina	South Carolina	Georgia	E Florida
	Shore Mode			
Target Trips	64,374	39,137	1,739	124,223
Output Impact	\$16,123,521	\$3,985,242	\$28,012	\$3,548,752
Value Added Impact	\$8,978,452	\$2,219,077	\$16,796	\$2,060,245
Jobs	195	49	0	38
	Private Mode			
Target Trips	187,064	21,322	3,705	64,414
Output Impact	\$10,210,602	\$938,127	\$57,886	\$2,435,825
Value Added Impact	\$5,757,442	\$547,384	\$35,113	\$1,455,535
Jobs	110	11	1	26
	Charter Mode			
Target Trips	2,445	2,478	237	527
Output Impact	\$951,798	\$835,650	\$14,899	\$206,532
Value Added Impact	\$534,151	\$472,108	\$8,695	\$121,591
Jobs	12	11	0	2
	All Modes			
Target Trips	253,883	62,937	5,681	189,164
Output Impact	\$27,285,921	\$5,759,019	\$100,796	\$6,191,109
Value Added Impact	\$15,270,045	\$3,238,570	\$60,605	\$3,637,372
Jobs	316	70	1	65

Source: effort data from the MRFSS, economic activity results calculated by NMFS SERO using the model developed for NMFS (2009c).



**Table 3.4.2.19.** Summary of cobia target trips (2005-2009 average) and associated economic activity (2008 dollars), Gulf states. Output and value added impacts are not additive.

	Alabama	W Florida	Louisiana	Mississippi	Texas
	Shore Mode				
Target Trips	0	87,863	0	0	Unknown
Output Impact	\$0	\$5,954,393	\$0	\$0	
Value Added Impact	\$0	\$3,459,307	\$0	\$0	
Jobs	0	63	0	0	
	Private Mode				
Target Trips	8,689	85,502	8,017	10,150	Unknown
Output Impact	\$505,538	\$3,881,907	\$653,775	\$289,461	
Value Added Impact	\$276,771	\$2,308,328	\$321,549	\$138,730	
Jobs	5	39	6	3	
	Charter Mode				
Target Trips	799	3,909	4,587	0	Unknown
Output Impact	\$416,000	\$1,227,452	\$2,183,650	\$0	
Value Added Impact	\$228,994	\$727,753	\$1,239,872	\$0	
Jobs	6	13	23	0	
	All Modes				
Target Trips	9,488	177,274	12,604	10,150	Unknown
Output Impact	\$921,539	\$11,063,752	\$2,837,425	\$289,461	
Value Added Impact	\$505,765	\$6,495,387	\$1,561,422	\$138,730	
Jobs	11	115	29	3	

Source: effort data from the MRFSS, economic activity results calculated by NMFS SERO using the model developed for NMFS (2009c).

**Table 3.4.2.20.** Summary of cobia target trips (2005-2009 average) and associated economic activity (2008 dollars), South Atlantic states. Output and value added impacts are not additive.

	North Carolina	South Carolina	Georgia	E Florida
Shore Mode				
Target Trips	22,566	731	0	8,524
Output Impact	\$5,652,024	\$74,436	\$0	\$243,510
Value Added Impact	\$3,147,354	\$41,448	\$0	\$141,371
Jobs	68	1	0	3
Private Mode				
Target Trips	29,623	17,238	2,961	85,694
Output Impact	\$1,616,926	\$758,439	\$46,262	\$3,240,531
Value Added Impact	\$911,735	\$442,539	\$28,062	\$1,936,390
Jobs	17	9	0	34
Charter Mode				
Target Trips	856	488	34	1,813
Output Impact	\$333,227	\$164,567	\$2,137	\$710,518
Value Added Impact	\$187,007	\$92,974	\$1,247	\$418,302
Jobs	4	2	0	7
All Modes				
Target Trips	53,045	18,457	2,995	96,031
Output Impact	\$7,602,176	\$997,442	\$48,399	\$4,194,559
Value Added Impact	\$4,246,096	\$576,960	\$29,309	\$2,496,062
Jobs	90	12	0	44

Source: effort data from the MRFSS, economic activity results calculated by NMFS SERO 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. Because the headboat sector in the Southeast Region is not covered by the MRFSS, 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 Headboat Survey, 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, 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

Coastal growth and development affects many coastal communities, especially those with either or both commercial and recreational working waterfronts. The rapid disappearance of these types of waterfronts has important implications as the disruption of various types of fishing-related businesses and employment. The process of “gentrification,” which tends to push those of a lower socio-economic class out of traditional communities as property values and taxes rise has become common along coastal areas of the U.S. and around the world. Working waterfronts tend to be displaced with development that is often stated as the “highest and best” use of

waterfront property, but often is not associated with water-dependent occupations. However, with the continued removal of these types of businesses over time the local economy becomes less diverse and more reliant on the service sector and recreational tourism. As home values increase, people within lower socio-economic strata find it difficult to live within these communities and eventually must move. Consequently they spend more time and expense commuting to work, if jobs continue to be available. Newer residents often have no association with the water-dependent employment and may see that type of work and its associated infrastructure as unappealing. They often do not see the linkage between those occupations and the aesthetics of the community that produced the initial appeal for many migrants. The demographic trends within counties can provide some indication as to whether these types of coastal change may be occurring if an unusually high rate of growth or change in the demographic character of the population is present. A rise in education levels, property values, fewer owner occupied properties and an increase in the median age can at times indicate a growing process of gentrification. Demographic profiles of coastal communities can be found in Amendment 18 (GMFMC and SAFMC 2011).

### **3.5.1 Gulf of Mexico Fishing Communities**

A recently passed regulatory action includes a description of Gulf communities identified as being strongly associated with fishing for coastal migratory pelagics and is incorporated here by reference. Final amendment 18 to the fishery management plan for coastal migratory pelagic resources in the Gulf of Mexico and Atlantic regions (GMFMC and SAFMC 2011).

<http://www.gulfcouncil.org/docs/amendments/Final%20CMP%20Amendment%2018%20092311%20w-o%20appendices.pdf>

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. 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.

The referenced analysis uses 2008 ALS data. Below, the Description of the Social Environment for the South Atlantic has been updated using 2010 ALS data, the most recent year available. Because of the Deepwater Horizon MC252 oil spill, 2010 data may not provide representative results of communities substantially involved in fishing for coastal migratory pelagic species. This section will be updated once 2011 data becomes available.

### **3.5.2 South Atlantic Fishing Communities**

The communities displayed in the maps below represent a categorization of communities based upon their overall value of local commercial landings divided by the overall value of commercial landings referred to as a “regional quotient.” These data were assembled from the accumulated landings system which includes all species from both state and federal waters landed in 2010. All communities were ranked on this “regional quotient” and divided by those who were above the mean and those below. Those above the mean were then divided into thirds with the top tier classified as Primarily Involved in fishing; the second tier classified as Secondly Involved;

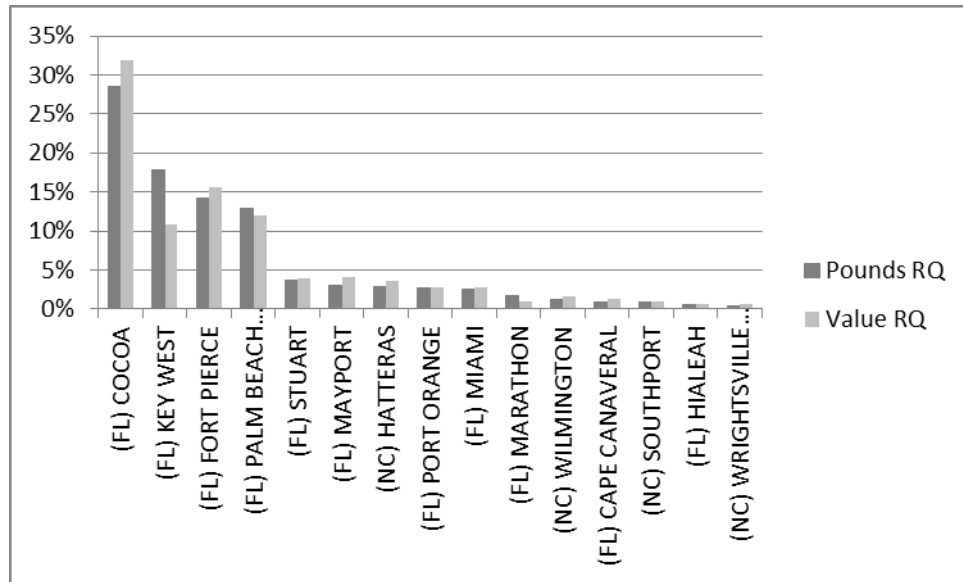
and the third classified as being Tangentially Involved. The communities included within the maps below were only those communities that were categorized as primarily or secondarily involved. This breakdown of fisheries involvement is similar to the how communities were categorized in the community profiling of South Atlantic fishing communities (Jepson et al. 2005). However, the categorization within the community profiles included other aspects associated with fishing such as infrastructure and other measures to determine a community's status with regard to reliance upon fishing. While these communities represent all fishing, communities those that are more involved in the coastal migratory pelagic species are represented in more depth within their respective county descriptions.

The social vulnerability index (SoVI) was created to understand social vulnerability of communities to coastal environmental hazards and can also be interpreted as a general measure of vulnerability to other social disruptions, such as adverse regulatory change or manmade hazards. Detailed information about the SoVI can be found in Amendment 18 (GMFMC and SAFMC 2011). High social vulnerability does not necessarily mean that there will be adverse effects of proposed actions in this amendment, only that there may be a potential for adverse effects under the right circumstances. Fishing communities in these counties may have more difficulty adjusting to regulatory changes if those impacts affect employment or other critical social capital. The SoVI for counties in each state is illustrated in the maps (Figures 3.5.3.4 and 3.5.3.12-14) below.

### **3.5.3 Coastal Pelagic Fishing Communities**

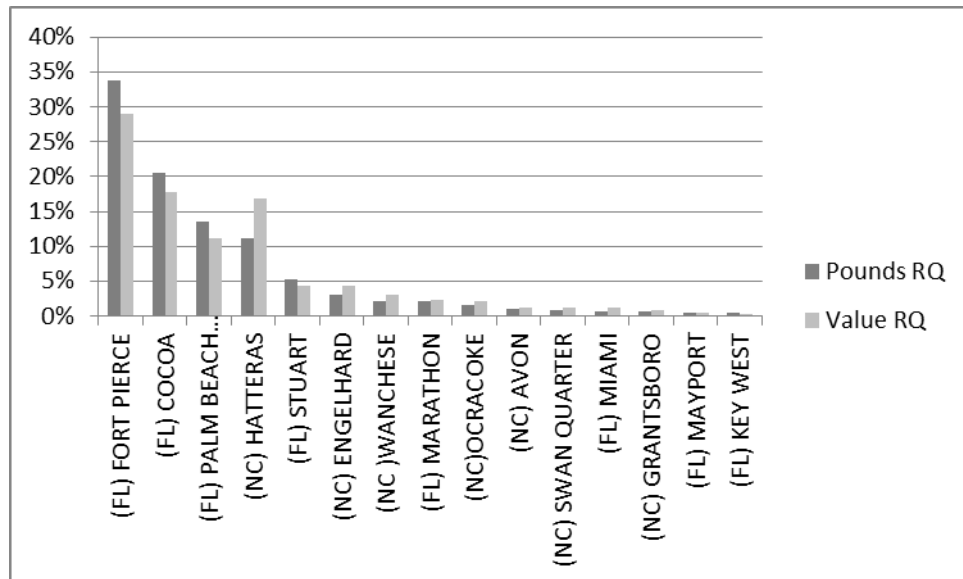
The figures below present the top fifteen communities based upon a regional quotient of commercial landings and value for coastal migratory pelagic species (Figures 3.5.3.1 – 3.5.3.3). The regional quotient is the proportion of landings and value out of the total landings and value of that species for that region. The Keys communities are included in both South Atlantic and Gulf communities to allow comparison within each region. In Figure 3.5.3.1, Cocoa, Florida lands over 25% of all king mackerel for South Atlantic fishing communities and those landings represent over 30% of the value. Only four North Carolina communities make up the top fifteen, and no South Carolina or Georgia communities are included in this graph.

Those communities that are categorized within the top fifteen for regional quota are profiled under their county description which includes the top fifteen species landed within each community by local quotient (lq) and represents those species ranked according to their contribution to landings and value out of total landings and value for each community. Only those communities that have landings or landed value of 3% or more will be profiled under a county description.



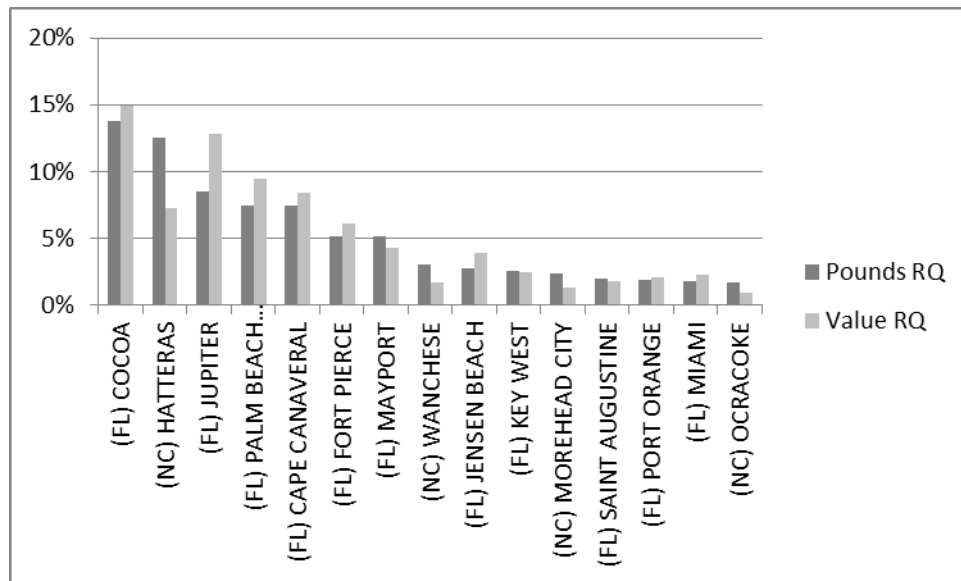
**Figure 3.5.3.1.** Top Fifteen South Atlantic Communities Ranked by Pounds and Value Regional Quotient of King Mackerel.  
Source: ALS 2010

For Spanish mackerel in the Atlantic (Figure 3.5.3.2), Fort Pierce has almost 35% of the landings and just almost 30% of the value. Cocoa is second with just over 20% of landings and about 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 3.5.3.2.** Top Fifteen South Atlantic Communities Ranked by Pounds and Value of Regional Quotient of Spanish Mackerel.  
Source: ALS 2010

Cocoa, Florida was also tops in pounds and value for cobia landed in the South Atlantic with 15% of the value and almost 15% of the landings (Figure 3.5.3.3). Although Hatteras, North Carolina has higher landings than Jupiter, Florida, Hatteras value is significantly lower than Jupiter. Three additional North Carolina communities are included in the top fifteen, and no South Carolina or Georgia communities are included.



**Figure 3.5.3.3.** Top Fifteen South Atlantic Communities Ranked by Pounds and Value Regional Quotient (rq) of Cobia.  
Source ALS 2010.

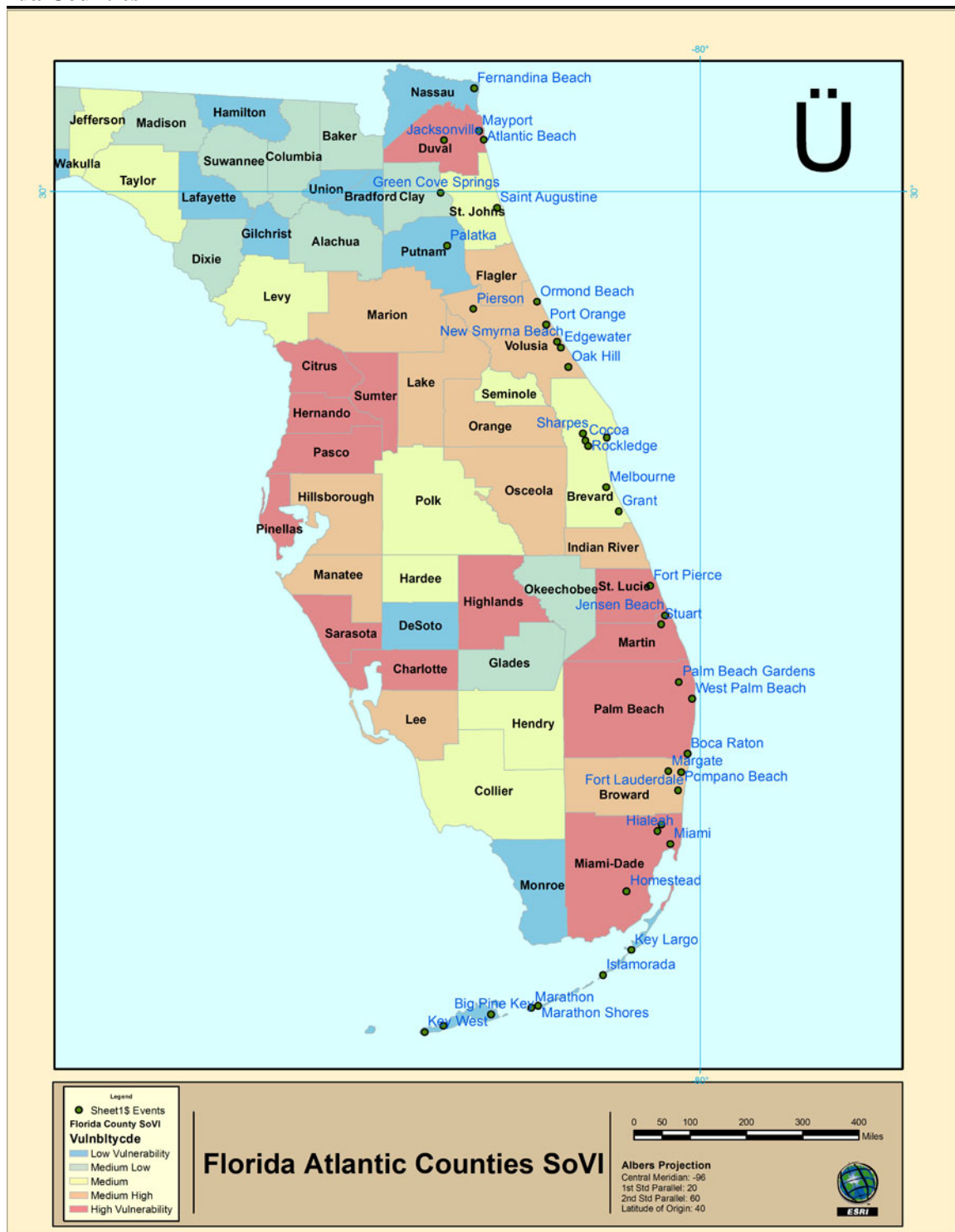
### Recreational Fishing Communities

Recreational fishing communities in the South Atlantic are listed in Table 3.5.3.1. These communities were selected by their ranking on a number of criteria including number of charter permits per thousand population and recreational fishing infrastructure as listed under the MRIP survey identified within each community.

**Table 3.5.3.1.** South Atlantic Recreational Fishing Communities.

<b>Community</b>	<b>State</b>	<b>Community</b>	<b>State</b>
Jekyll Island	GA	Cape Carteret	NC
Hatteras	NC	Kill Devil Hill	NC
Manns Harbor	NC	Murrells Inlet	SC
Manteo	NC	Little River	SC
Atlantic Beach	NC	Georgetown	SC
Wanchese	NC	Islamorada	FL
Salter Path	NC	Cudjoe Key	FL
Holden Beach	NC	Key West	FL
Ocean Isle	NC	Tavernier	FL
Southport	NC	Little Torch Key	FL
Wrightsville Beach	NC	Ponce Inlet	FL
Marshallberg	NC	Marathon	FL
Carolina Beach	NC	Sugarloaf Key	FL
Oriental	NC	Palm Beach Shores	FL
Topsail Beach	NC	Big Pine Key	FL
Swansboro	NC	Saint Augustine	FL
Nags Head	NC	Key Largo	FL
Harkers Island	NC	Summerland Key	FL
Calabash	NC	Sebastian	FL
Morehead City	NC	Cape Canaveral	FL

## Florida Counties



**Figure 3.5.3.4.** The Social Vulnerability Index applied to South Atlantic Florida Counties.



A good portion of Florida's east coast (Figure 3.5.3.4) is considered either medium high or highly vulnerable in terms of social vulnerability. In fact, the only counties not included in those two categories are Nassau, St. John's and Monroe. Those counties with communities with significant landings of coastal pelagics are profiled below.

In 2012, Florida vessels had 1,690 king mackerel and Spanish mackerel commercial permits, including king mackerel gillnet permits (there is no cobia permit at this time) (Table 3.5.3.2). Monroe County (Florida Keys) has the largest number of king mackerel and Spanish mackerel permits, followed by Palm Beach County. In general, the more southern counties have more CMP permits. Most vessels have permits for both king and Spanish mackerel.

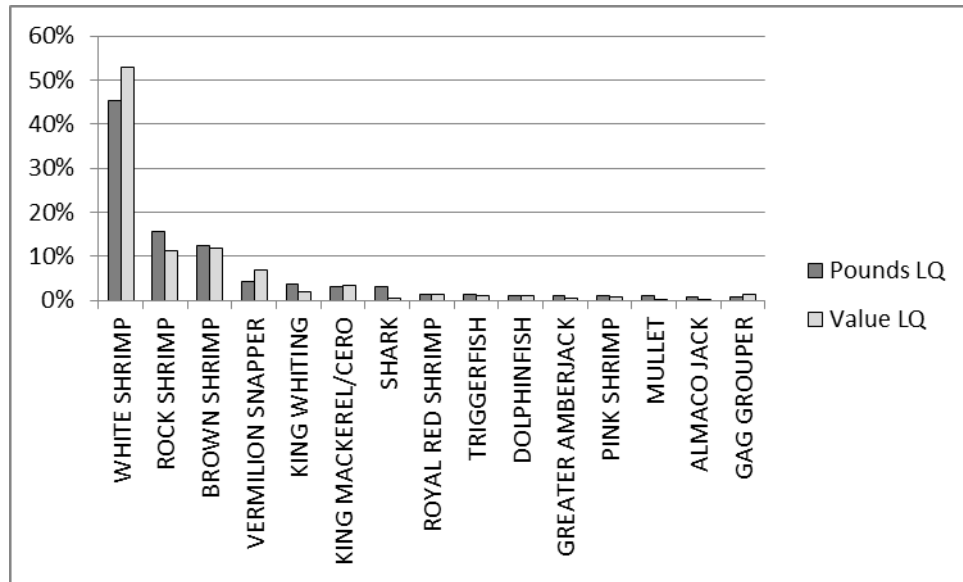
**Table 3.5.3.2.** Number of CMP permits in Florida counties (2012).

<b>County*</b>	<b>King Mackerel Gill Net</b>	<b>King Mackerel</b>	<b>Spanish Mackerel</b>	<b>Total</b>
Brevard	0	84	85	<b>169</b>
Broward	0	47	60	<b>107</b>
Duval	0	27	26	<b>53</b>
Indian River	0	51	54	<b>105</b>
Martin	4	55	72	<b>131</b>
Miami-Dade	0	82	153	<b>235</b>
Monroe	11	152	245	<b>408</b>
Nassau	0	5	5	<b>10</b>
Palm Beach	0	150	156	<b>306</b>
St Johns	0	6	7	<b>13</b>
St Lucie	0	52	69	<b>121</b>
Volusia	0	15	17	<b>32</b>
<b>Total</b>	<b>15</b>	<b>726</b>	<b>949</b>	<b>1,690</b>

\*Based on mailing address of permit holder.

### Duval County

Detailed demographic information about Duval County can be found in Amendment 18 (GMFMC and SAFMC 2011). The primary fishing communities in Duval County are Jacksonville and Mayport, but because Jacksonville is a large city, the commercial fisheries have less of a local economic impact than in a smaller community like Mayport. Figure 3.5.3.5 shows the top fifteen commercial species landed in Mayport. Overall, white shrimp is the most important commercial fishery in the community, and just over 3% of landings consisting of CMP species with king mackerel making up the largest proportion of CMP landings.

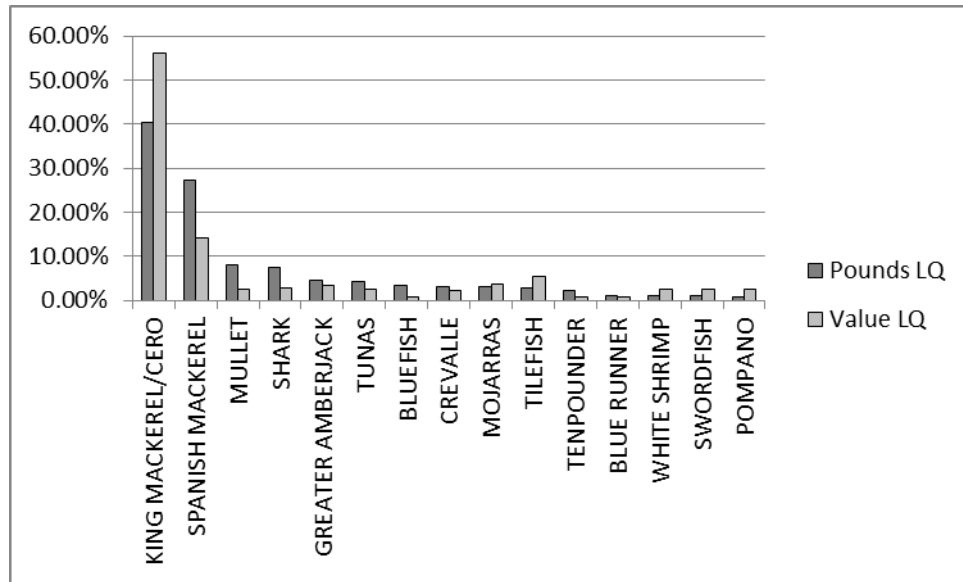


**Figure 3.5.3.5.** The top fifteen species in terms of proportion (lq) of total landings and value for Mayport, Florida. Source: ALS 2010

### Brevard County

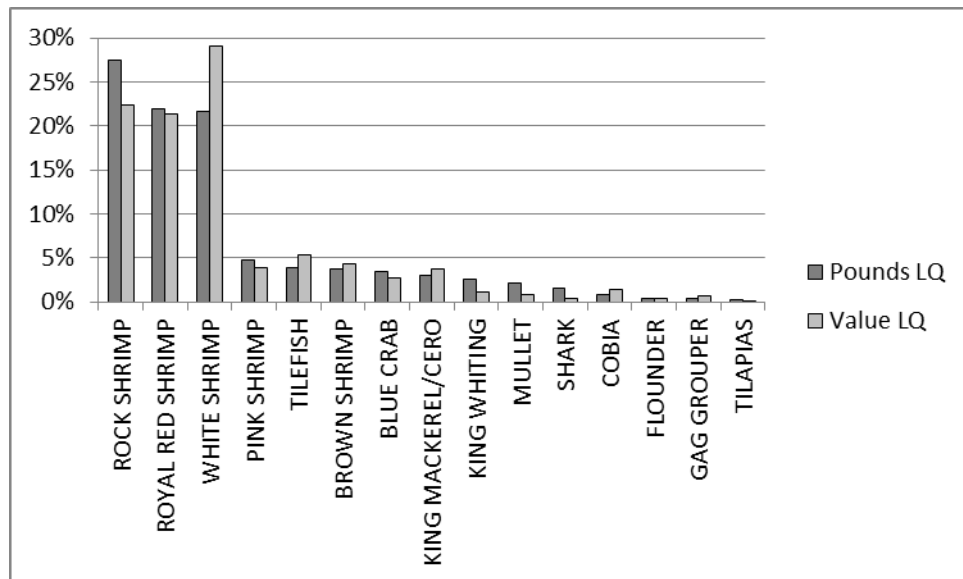
Detailed demographic information about Brevard County can be found in Amendment 18 (GMFMC and SAFMC 2011). The primary fishing communities are Cape Canaveral, Cocoa, Melbourne, and Titusville. Brevard County is also home to a large cruise terminal and the Kennedy Space Center in Cape Canaveral. Both Cocoa and Cape Canaveral are included in the top fifteen South Atlantic communities with CMP landings.

Cocoa is the top community in the South Atlantic for king mackerel and cobia commercial landings, and the second community for Spanish mackerel. King mackerel and Spanish mackerel make up almost 70% of landings in the community and about 70% of the local commercial value (Figure 3.5.3.6).



**Figure 3.5.3.6.** The top fifteen species in terms of proportion (lq) of total landings and value for Cocoa, Florida. Source: ALS 2010

Although Cape Canaveral is one of the top fifteen South Atlantic communities in commercial cobia landings, the species does not make up a significant portion of local landings (Figure 3.5.3.7). Deepwater and penaeid shrimp species are the majority of landings in this community.

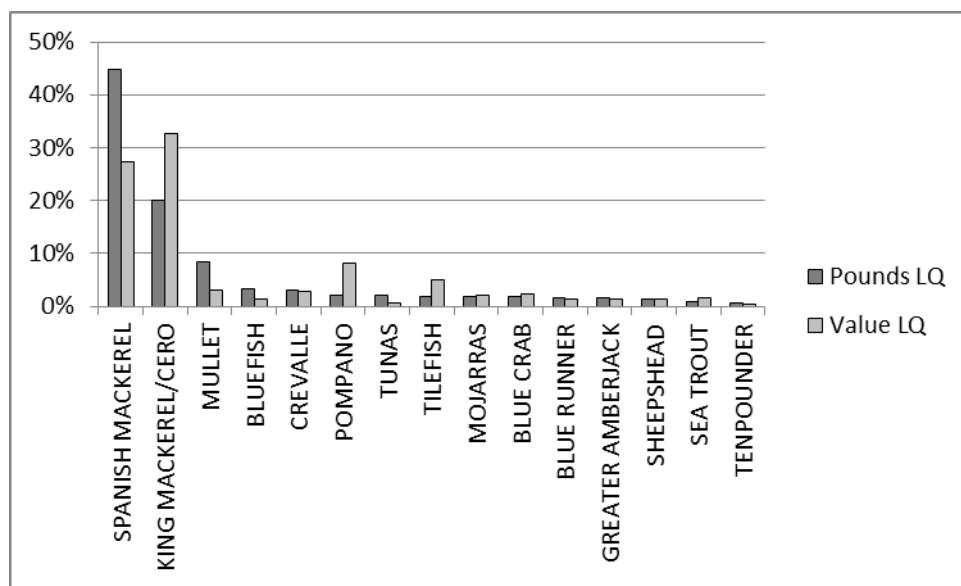


**Figure 3.5.3.7.** The top fifteen species in terms of proportion (lq) of total landings and value for Cape Canaveral, Florida. Source: ALS 2010

## St. Lucie County

Detailed demographic information about St. Lucie County can be found in Amendment 18 (GMFMC and SAFMC 2011). The primary fishing communities are Port St. Lucie and Fort Pierce.

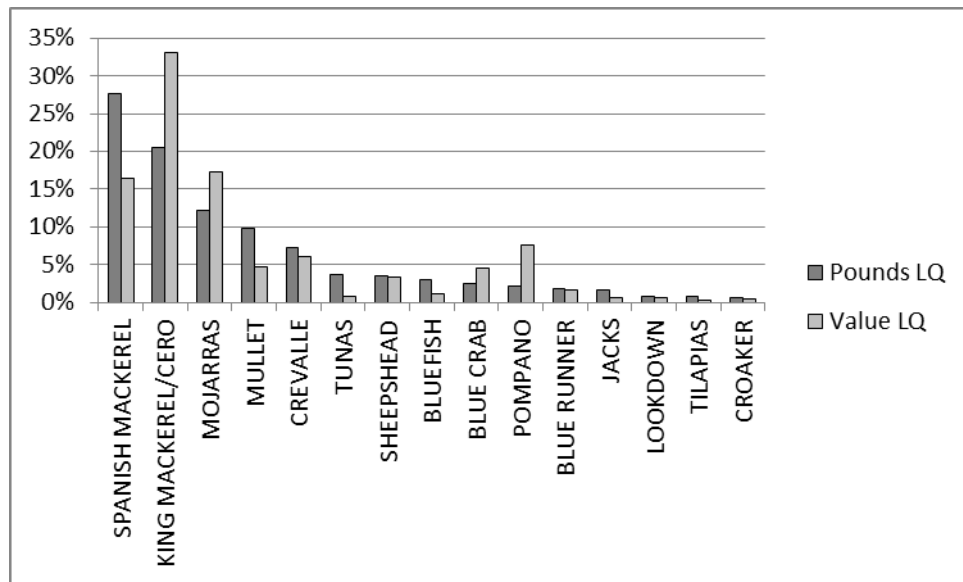
Fort Pierce was included in the top fifteen communities for CMP species and the distribution of commercial landings is shown in Figure 3.5.3.8. Spanish mackerel and king mackerel make up more than 60% of all commercial landings and commercial value.



**Figure 3.5.3.8.** The top fifteen species in terms of proportion (lq) of total landings and value for Fort Pierce, Florida. Source: ALS 2010

## Martin County

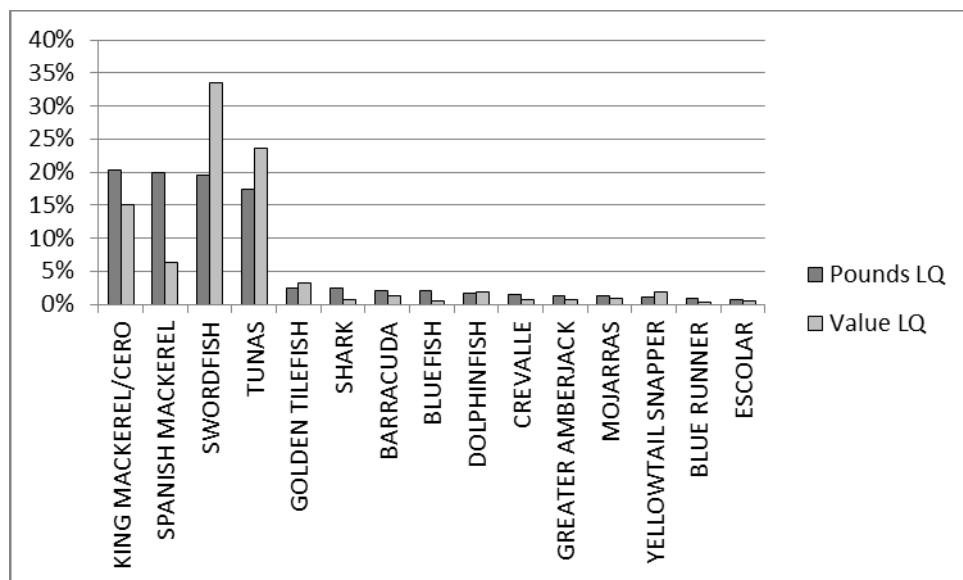
Detailed demographic information about Martin County can be found in Amendment 18 (GMFMC and SAFMC 2011). The primary fishing communities are Stuart, Port Salerno, Jensen Beach, and Hobe Sound. Stuart is one of the top fifteen communities in the South Atlantic for CMP species. Spanish mackerel and king mackerel make up about 45% of commercial landings in Stuart and almost 50% of commercial fishing value (Figure 3.5.3.9).



**Figure 3.5.3.9.** The top fifteen species in terms of proportion (lq) of total landings and value for Stuart, Florida. Source: ALS 2010

### Palm Beach County

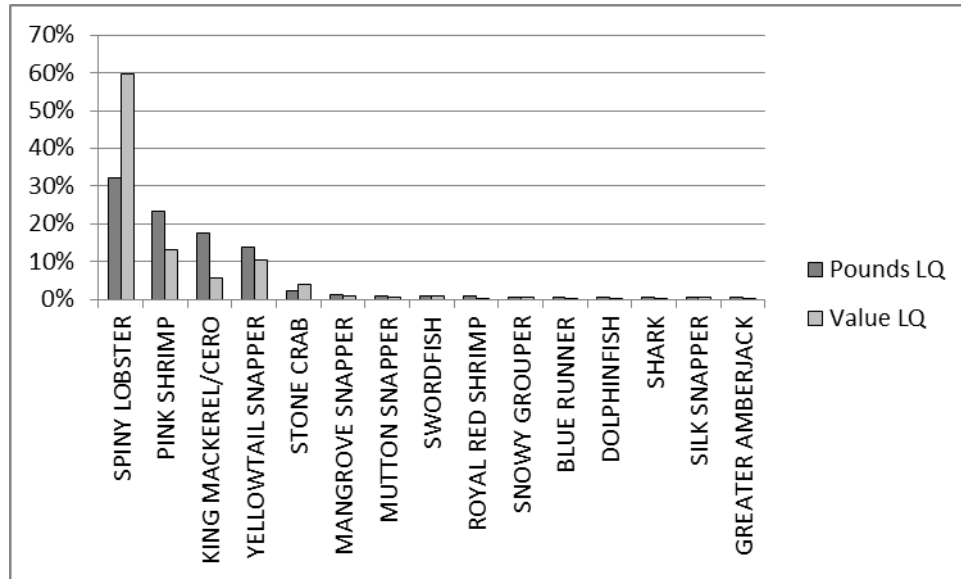
Detailed demographic information about Palm Beach County can be found in Amendment 18 (GMFMC and SAFMC 2011). The primary fishing communities are Atlantic Beach, Boynton Beach, Delray Beach, Jupiter, Lake Worth, Palm Beach, and Palm Beach Gardens. Palm Beach Gardens is one of the top fifteen South Atlantic communities for CMP species, and king mackerel and Spanish mackerel make up about 40% of local landings and about 20% of local fishery value (Figure 3.5.3.10). Although swordfish and tuna make up about the same proportion of landings, these two fisheries make up a substantial part of the local fishery value.



**Figure 3.5.3.10.** The top fifteen species in terms of proportion (lq) of total landings and value for Palm Beach Gardens, Florida. Source: ALS 2010

## Monroe County

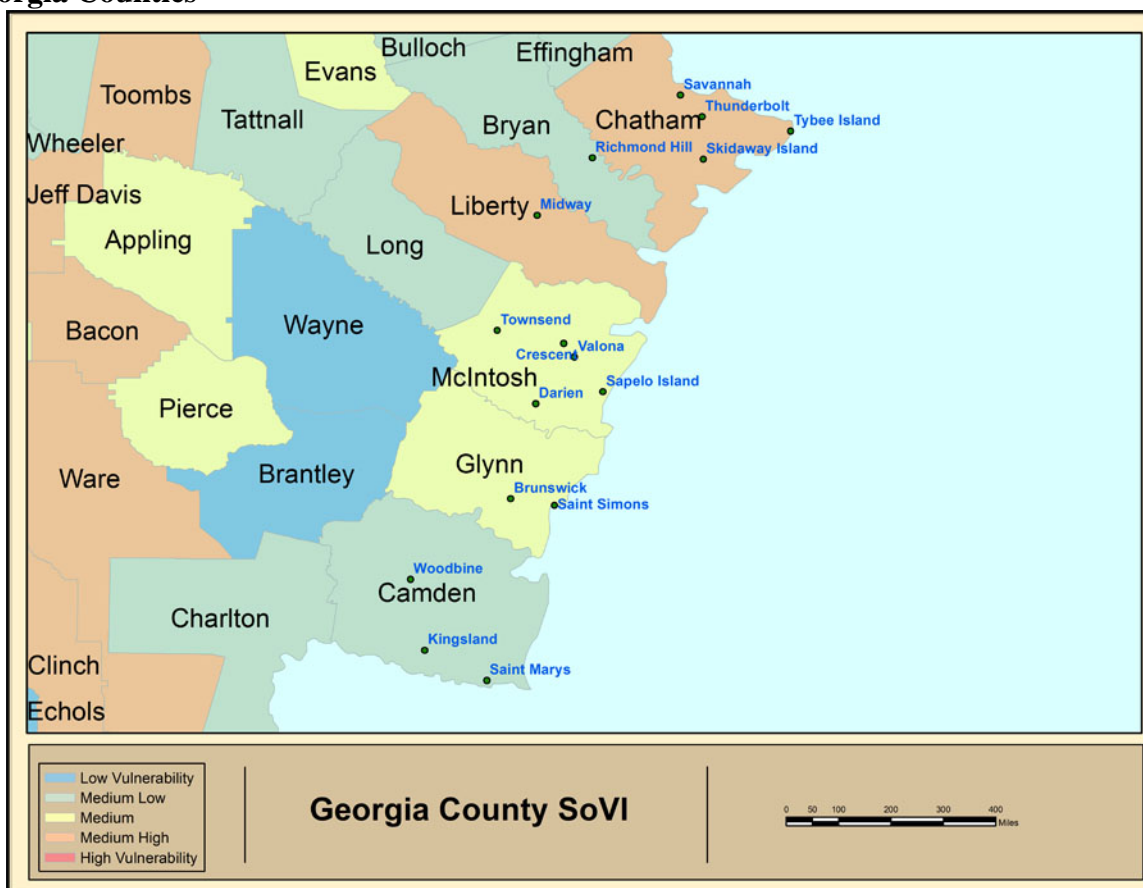
Detailed demographic information about Monroe County can be found in Amendment 18 (GMFMC and SAFMC 2011). The primary fishing communities are Key Largo, Islamorada, Tavernier, Marathon, Big Pine Key, Summerland Key, and Key West. Key West is one of the top fifteen communities in the South Atlantic and in the Gulf (see section 3.5.4). Spiny lobster and pink shrimp are the primary commercial species in Key West (Figure 3.5.3.11), with king mackerel making up almost 20% of local landings.



**Figure 3.5.3.11.** The top fifteen species in terms of proportion (lq) of total landings and value for Key West, Florida.

Source: ALS 2010

## Georgia Counties



**Figure 3.5.3.12.** The Social Vulnerability Index applied to Georgia Coastal Counties.

There were two counties in Georgia with medium high vulnerability and those were Liberty and Chatham (Figure 3.5.3.12). The fishing communities located in those counties are Savannah, Thunderbolt, Tybee Island and Skidaway Island in Chatham County, and Midway in Liberty County. There are few king mackerel and Spanish mackerel permits in Georgia, with the largest number in McIntosh County (Table 3.5.3.3).

**Table 3.5.3.3.** Number of CMP permits in Georgia counties (2012).

County*	King Mackerel	Spanish Mackerel	Total
Camden	1	1	2
Chatham	1	1	2
Glynn	1	1	2
McIntosh	3	2	5
Putnam	1	0	1
Telfair	1	1	2
Other	3	1	4
<b>Total</b>	<b>11</b>	<b>7</b>	<b>18</b>

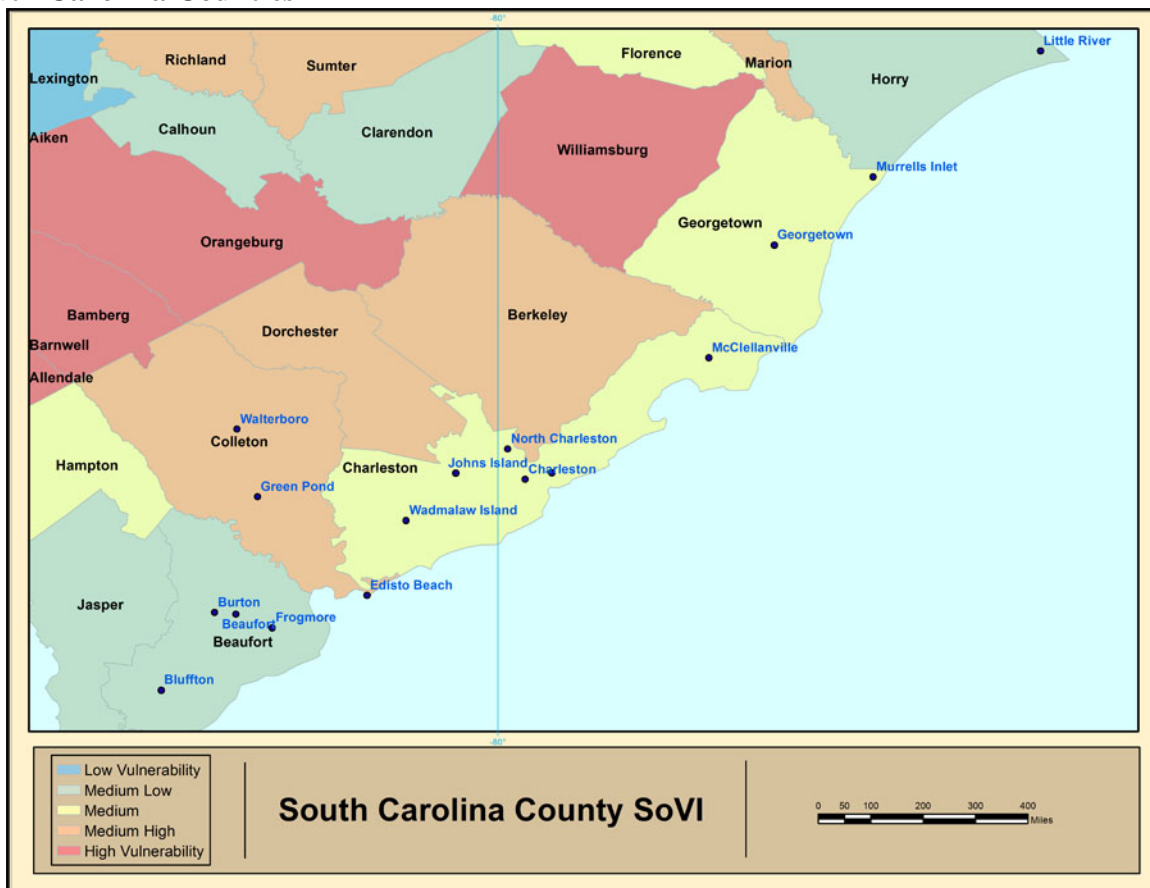
\*Based on the mailing address of the permit holder.

Georgia had no communities with landings or value over 3% for any coastal pelagic. While there were no substantial commercial landings within the state, the recreational fishery may be important. However, it is unfeasible to place recreational landings at the community level. Recreational fishing communities in the state are listed above in Table 3.5.3.1.

### South Carolina Counties

Coastal South Carolina had no counties that were either medium or highly vulnerable (Figure 3.5.3.13). This does not mean that communities could not be vulnerable to adverse impacts because of regulatory action. It may suggest that coastal South Carolina is more resilient and capable of absorbing such impacts without substantial social disruption. South Carolina had no communities with landings or value over 3% for any coastal pelagic. While there were no substantial commercial landings within the state, the recreational fishery may be important. However, it is unfeasible to place recreational landings at the community level. Recreational fishing communities in the state are listed above in Table 3.5.3.1.

### South Carolina Counties



**Figure 3.5.3.13.** The Social Vulnerability Index applied to South Carolina Coastal Counties.



In comparison to other states, South Carolina has a lower number of king mackerel and Spanish mackerel permits. Most of the permit holders live in Georgetown County or Horry County, with some individuals from Charleston County (Table 3.5.3.3).

**Table 3.5.3.3.** Number of CMP permits in South Carolina counties (2012).

<b>County*</b>	<b>King Mackerel</b>	<b>Spanish Mackerel</b>	<b>Total</b>
Berkeley	1	0	<b>1</b>
Charleston	4	2	<b>6</b>
Georgetown	11	4	<b>15</b>
Hampton	2	1	<b>3</b>
Horry	7	6	<b>13</b>
Williamsburg	0	2	<b>2</b>
<b>Total</b>	<b>25</b>	<b>15</b>	<b>40</b>

\*Based on mailing address of the permit holder.

South Carolina had no communities with landings or value over 3% for any coastal pelagic. While there were no substantial commercial landings within the state, the recreational fishery, particularly for cobia, is important for private anglers and the for-hire sector.

### **North Carolina Counties**

There are a number of North Carolina counties classified as being either medium high or high on the social vulnerability scale and within those counties there are numerous fishing communities (Figure 3.5.3.14). Those counties that are considered to be either medium high or high on the SoVI are: New Hanover, Onslow, Carteret, Washington, Bertie, Chowan, Pasquotank, and Perquimans.

North Carolina has slightly more king mackerel permits than Spanish mackerel permits, and in general most vessels have both permits. Dare County has the highest number of CMP permits followed by Brunswick County. Carteret County and New Hanover County also have relatively significant numbers of CMP permits.

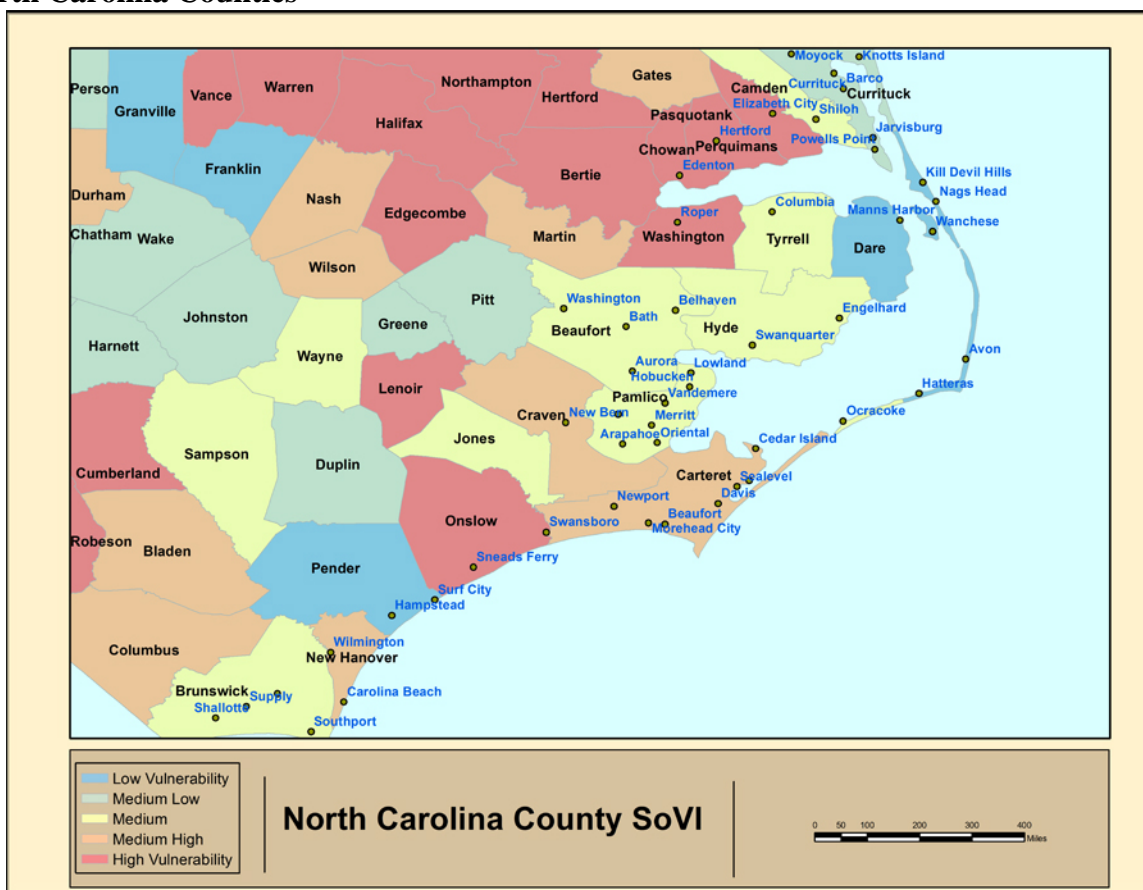
**Table 3.5.3.4.** Number of CMP permits in North Carolina counties (2012).

<b>County*</b>	<b>King Mackerel</b>	<b>Spanish Mackerel</b>	<b>Total</b>
Beaufort	1	1	<b>2</b>
Brunswick	55	37	<b>92</b>
Carteret	30	23	<b>53</b>
Dare	77	76	<b>153</b>
Hyde	4	8	<b>12</b>
New Hanover	35	13	<b>48</b>
Onslow	6	2	<b>8</b>
Pamlico	0	8	<b>8</b>
Pasquotank	0	1	<b>1</b>
Pender	10	4	<b>14</b>
Pitt	1	2	<b>3</b>
Randolph	3	3	<b>6</b>
Wake	1	0	<b>1</b>
Other	15	13	<b>28</b>
<b>Total</b>	<b>238</b>	<b>191</b>	<b>429</b>

\*Based on mailing address of the permit holder.

Hatteras is the only community in North Carolina with landings or value over 3% for any coastal pelagic. While there were no substantial commercial landings within the state, the recreational fishery is important for private anglers and the for-hire sector.

## North Carolina Counties



**Figure 3.5.3.14.** The Social Vulnerability Index applied to North Carolina Coastal Counties.

### 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 South Atlantic coast and not just those profiled, it is possible that other counties or communities have poverty or minority rates that exceed the EJ thresholds.

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

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

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.

**Table 3.5.4.1.** 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*
<b>Florida</b>		<b>47.4</b>	<b>56.88</b>	<b>13.18</b>	<b>15.81</b>
	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
<b>Georgia</b>		<b>50.0</b>	<b>60.0</b>	<b>15.0</b>	<b>18.0</b>
	Liberty	53.2	-3.2	17.5	0.5
<b>South Carolina</b>		<b>41.9</b>	<b>50.28</b>	<b>15.82</b>	<b>18.98</b>
	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
<b>North Carolina</b>		<b>39.1</b>	<b>46.92</b>	<b>15.07</b>	<b>18.08</b>
	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.

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. Cobia has less importance commercially but is an extremely important recreational species, particularly in the Carolinas and for the for-hire sector on the Florida panhandle. 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 will 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.

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.

## **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 Section 9. In most cases, the Secretary has delegated this authority to NMFS.

The Gulf Council is responsible for fishery resources in federal waters of the Gulf of Mexico. These waters extend to 200 nautical miles offshore from the nine-mile seaward boundary of the 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 NOAA Fisheries.

The South Atlantic Council is responsible for conservation and management of fishery resources in federal waters of the U.S. South Atlantic. These waters extend from 3 to 200 miles offshore from the seaward boundary of the States of North Carolina, South Carolina, Georgia, and east Florida to Key West. The South Atlantic Council has thirteen 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, U.S. Coast Guard (USCG), and Atlantic States Marine Fisheries Commission (ASMFC).

The Mid-Atlantic Fishery Management Council (Mid-Atlantic Council) has two voting seats on the South Atlantic Council's Mackerel 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 a Scientific and Statistical Committee to review the data and science being used in assessments and fishery management plans/amendments. Regulations contained within FMPs are enforced through actions of the NOAA's Office for Law Enforcement, the USCG, and various state authorities.

The public is involved in the fishery management process through participation at public meetings, on advisory panels and through council meetings that, with few exceptions for discussing personnel matters, are open to the public. The regulatory process is in accordance with the Administrative Procedures Act, in the form of "notice and comment" rulemaking, which provides extensive opportunity for public scrutiny and comment, and requires consideration of and response to those comments.

### **3.6.2 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 states natural resources, all states cooperate with numerous state and federal regulatory agencies when managing marine resources.

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

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

More information about these agencies can be found from the following web pages:

Texas Parks & Wildlife Department - <http://www.tpwd.state.tx.us>

Louisiana Department of Wildlife and Fisheries <http://www.wlf.state.la.us/>

Mississippi Department of Marine Resources <http://www.dmr.state.ms.us/>

Alabama Department of Conservation and Natural Resources <http://www.dcnr.state.al.us/>

Florida Fish and Wildlife Conservation Commission <http://www.myfwc.com>

Georgia Department of Natural Resources, Coastal Resources Division <http://crd.dnr.state.ga.us/>

South Carolina Department of Natural Resources <http://www.dnr.sc.gov/>

North Carolina Department of Environmental and Natural Resources

<http://portal.ncdenr.org/web/guest/>

## **CHAPTER 4. ENVIRONMENTAL CONSEQUENCES**

### **4.1 Action 1: Sale of King and Spanish Mackerel**

#### **4.1.1 Direct and Indirect Effects on the Physical Environment**

#### **4.1.2 Direct and Indirect Effects on the Biological/Ecological Environment**

#### **4.1.3 Direct and Indirect Effects on the Economic Environment**

#### **4.1.4 Direct and Indirect Effects on the Social Environment**

#### **4.1.5 Direct and Indirect Effects on the Administrative Environment**

### **4.2 Action 2: Sale of Cobia**

#### **4.2.1 Direct and Indirect Effects on the Physical Environment**

#### **4.2.2 Direct and Indirect Effects on the Biological/Ecological Environment**

#### **4.2.3 Direct and Indirect Effects on the Economic Environment**

#### **4.2.4 Direct and Indirect Effects on the Social Environment**

#### **4.2.5 Direct and Indirect Effects on the Administrative Environment**



### **4.3 Action 3: Tournament Sale of King Mackerel**

#### **4.3.1 Direct and Indirect Effects on the Physical Environment**

#### **4.3.2 Direct and Indirect Effects on the Biological/Ecological Environment**

#### **4.3.3 Direct and Indirect Effects on the Economic Environment**

#### **4.3.4 Direct and Indirect Effects on the Social Environment**

#### **4.3.5 Direct and Indirect Effects on the Administrative Environment**

### **4.4 Action 4: Elimination of Latent Endorsements in the Gulf Group King Mackerel Gillnet Sector**

#### **4.4.1 Direct and Indirect Effects on the Physical Environment**

#### **4.4.2 Direct and Indirect Effects on the Biological/Ecological Environment**

#### **4.4.3 Direct and Indirect Effects on the Economic Environment**

#### **4.4.4 Direct and Indirect Effects on the Social Environment**

#### **4.4.5 Direct and Indirect Effects on the Administrative Environment**

## **4.5 Action 5: Elimination of Latent Permits in the King Mackerel Hook-and-Line Sector**

### **4.5.1 Direct and Indirect Effects on the Physical Environment**

### **4.5.2 Direct and Indirect Effects on the Biological/Ecological Environment**

### **4.5.3 Direct and Indirect Effects on the Economic Environment**

### **4.5.4 Direct and Indirect Effects on the Social Environment**

### **4.5.5 Direct and Indirect Effects on the Administrative Environment**

## **4.6 Action 6: Federal Regulatory Compliance**

### **4.6.1 Direct and Indirect Effects on the Physical Environment**

### **4.6.2 Direct and Indirect Effects on the Biological/Ecological Environment**

### **4.6.3 Direct and Indirect Effects on the Economic Environment**

### **4.6.4 Direct and Indirect Effects on the Social Environment**

#### **4.6.5 Direct and Indirect Effects on the Administrative Environment**

### **4.7 Action 7: Modify or Eliminate Income Requirements for Gulf and South Atlantic Commercial Coastal Migratory Pelagic Permits**

#### **4.7.1 Direct and Indirect Effects on the Physical Environment**

#### **4.7.2 Direct and Indirect Effects on the Biological/Ecological Environment**

#### **4.7.3 Direct and Indirect Effects on the Economic Environment**

#### **4.7.4 Direct and Indirect Effects on the Social Environment**

#### **4.7.5 Direct and Indirect Effects on the Administrative Environment**

### **4.8 Action 8: Atlantic Group Spanish Mackerel Gillnet Endorsements**

#### **4.8.1 Direct and Indirect Effects on the Physical Environment**

#### **4.8.2 Direct and Indirect Effects on the Biological/Ecological Environment**

#### **4.8.3 Direct and Indirect Effects on the Economic Environment**

#### **4.8.4 Direct and Indirect Effects on the Social Environment**

#### **4.8.5 Direct and Indirect Effects on the Administrative Environment**

### **4.9 Cumulative Effects Analysis**

#### **4.10 Other Effects**

(Discuss unavoidable adverse effects; relationship between short-term uses and long-term productivity; mitigation, monitoring, and enforcement measures; and irreversible and irretrievable commitments of resources)

## CHAPTER 5. REGULATORY IMPACT REVIEW

### 5.1 Introduction

### 5.2 Problems and Objectives

### 5.3 Methodology and Framework for Analysis

### 5.4 Description of the Fishery

A description of the xx fishery, with particular reference to xx, is contained in Chapter 3.

### 5.5 Effects on Management Measures

### 5.6 Public and Private Costs of Regulations

Council costs of document preparation, meetings, public hearings, and information Dissemination .....	\$x0,000
NOAA Fisheries administrative costs of document preparation, meetings and review .....	\$x0,000
TOTAL .....	\$x0,000

### 5.7 Determination of Significant Regulatory Action

## **CHAPTER 6. REGULATORY FLEXIBILITY ACT ANALYSIS**

### **6.1 Introduction**

### **6.2 Statement of the need for, objective of, and legal basis for the rule**

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

### **6.4 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 requirement and the type of professional skills necessary for the preparation of the report or records**

### **6.5 Identification of all relevant federal rules, which may duplicate, overlap or conflict with the proposed rule**

### **6.6 Significance of economic impacts 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**

## CHAPTER 7. BYCATCH PRACTICABILITY ANALYSIS

## CHAPTER 8. LIST OF PREPARERS



## **CHAPTER 9. LIST OF AGENCIES, ORGANIZATIONS AND PERSONS CONSULTED**

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## APPENDIX A. ALTERNATIVES CONSIDERED BUT REJECTED

### Passive Reduction of Permits

**Alternative 1:** No Action – To transfer a commercial king mackerel vessel permit, the permit must be valid or renewable.

**Alternative 2:** To transfer a commercial king mackerel vessel permit, the permittee must possess two valid or renewable permits at the time of transfer; only one permit would be reissued and the other would be retired.

#### Discussion:

This action would over time reduce the number of active permits and the resultant effort in the king mackerel fishery. As of March 28, 2012, the number of valid or renewable permits is 1,507. The number of permits has declined since the inception of the moratorium in 1998. This phenomenon is generally true for other fisheries that have incorporated moratoria as part of the management strategy. Although the commercial sector has generally caught its allocation of TAC in recent years, the recreational sector has consistently been under its allocation of TAC by approximately 2.0 mp over the past 10 years. Furthermore, the Gulf group king mackerel stock is not considered to be overfished or undergoing overfishing. This action would likely have negative social and economic impacts on this sector of the fishery.

## APPENDIX B. OTHER APPLICABLE LAW

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

### **Administrative Procedures Act**

All federal rulemaking is governed under the provisions of the Administrative Procedure Act (APA) (5 U.S.C. Subchapter II), which establishes a “notice and comment” procedure to enable public participation in the rulemaking process. Under the APA, National Marine Fisheries Service 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, National Marine Fisheries Service 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, National Marine Fisheries Service will determine if this plan amendment is consistent with the Coastal Zone Management programs of the states of Alabama, Florida, Louisiana, Mississippi, and Texas 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 (OMB) to issue government wide guidelines that “provide policy and procedural guidance to federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information disseminated by federal agencies.” Such guidelines have been issued, directing all federal agencies to create and disseminate agency-specific standards to: 1) ensure information quality and develop a pre-

dissemination review process; 2) establish administrative mechanisms allowing affected persons to seek and obtain correction of information; and 3) report periodically to OMB on the number and nature of complaints received.

Scientific information and data are key components of fishery management plans (FMPs) and amendments and the use of best available information is the second national standard under the Magnuson-Stevens Act. To be consistent with the 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.

### **Endangered Species Act**

The Endangered Species Act (ESA) of 1973, as amended, (16 U.S.C. Section 1531 et seq.) requires federal agencies use their authorities to conserve endangered and threatened species. The ESA requires National Marine Fisheries Service, when proposing a fishery action that “may affect” critical habitat or endangered or threatened species, to consult with the appropriate administrative agency (itself for most marine species, the U.S. Fish and Wildlife Service for all remaining species) to determine the potential impacts of the proposed action. Consultations are concluded informally when proposed actions may affect but are “not likely to adversely affect” endangered or threatened species or designated critical habitat. Formal consultations, including a biological opinion, are required when proposed actions may affect and are “likely to adversely affect” endangered or threatened species or adversely modify designated critical habitat. If jeopardy or adverse modification is found, the consulting agency is required to suggest reasonable and prudent alternatives. National Marine Fisheries Service, as part of the Secretarial review process, will make a determination regarding the potential impacts of the proposed actions.

### **Executive Orders**

#### **E.O. 12630: Takings**

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

#### **E.O. 12866: Regulatory Planning and Review**

Executive Order 12866: Regulatory Planning and Review, signed in 1993, requires federal agencies to assess the costs and benefits of their proposed regulations, including distributional impacts, and to select alternatives that maximize net benefits to society. To comply with E.O. 12866, National Marine Fisheries Service prepares a Regulatory Impact Review (RIR) for all



fishery regulatory actions that either implement a new fishery management plan or significantly amend an existing plan. RIRs provide a comprehensive analysis of the costs and benefits to society of proposed regulatory actions, the problems and policy objectives prompting the regulatory proposals, and the major alternatives that could be used to solve the problems. The reviews also serve as the basis for the agency's determinations as to whether proposed regulations are a "significant regulatory action" under the criteria provided in E.O. 12866 and whether proposed regulations would have a significant economic impact on a substantial number of small entities in compliance with the Regulatory Flexibility Act. A regulation is significant if it a) has an annual effect on the economy of \$100 million or more or adversely affects 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 and communities; b) creates a serious inconsistency or otherwise interferes with an action taken or planned by another agency; c) materially alters the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or d) raises novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this Executive Order. National Marine Fisheries Service has preliminarily determined that this action will not meet the economic significance threshold of any criteria.

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

This Executive Order mandates that each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories and possessions. Federal agency responsibilities under this Executive Order include conducting their programs, policies, and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons from participation in, denying persons the benefit of, or subjecting persons to discrimination under, such, programs policies, and activities, because of their race, color, or national origin. Furthermore, each federal agency responsibility set forth under this Executive Order shall apply equally to Native American programs. Environmental justice considerations are discussed in detail in Section 2.5.

#### **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 National Marine Fisheries Service 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 National Marine Fisheries Service, 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.

### **Essential Fish Habitat**

The amended Magnuson-Stevens Act included a new habitat conservation provision known as Essential Fish Habitat (EFH) that requires each existing and any new FMPs to describe and identify EFH for each federally managed species, minimize to the extent practicable impacts from fishing activities on EFH that are more than minimal and not temporary in nature, and identify other actions to encourage the conservation and enhancement of that EFH. To address these requirements the Council has, under separate action, approved an environmental impact statement (GMFMC 2004) to address the new EFH requirements contained within the Magnuson-Stevens Act. Section 305(b)(2) requires federal agencies to obtain a consultation for any action that may adversely affect EFH. An EFH consultation will be conducted for this action.

## **APPENDIX C. SUMMARIES OF PUBLIC COMMENTS RECEIVED**

List the locations of the scoping hearings and public hearings, then list the summaries and written comments

## **APPENDIX D. DECISIONS TOOLS**