1/19/05

FINAL AMENDMENT 15

TO THE

FISHERY MANAGEMENT PLAN

FOR COASTAL MIGRATORY PELAGIC RESOURCES

IN THE ATLANTIC AND GULF OF MEXICO

INCLUDING ENVIRONMENTAL ASSESSMENT,

REGULATORY IMPACT REVIEW,

AND REGULATORY FLEXIBILITY ACT ANALYSIS

NOVEMBER 2004

GULF OF MEXICO FISHERY MANAGEMENT COUNCIL
3018 NORTH U.S. HIGHWAY 301, SUITE 1000
TAMPA, FLORIDA 33619-2272
813-228-2815
SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL
1 SOUTHPARK CIRCLE, SUITE 306
CHARLESTON, SOUTH CAROLINA 29407-4699
843-571-4366
MID-ATLANTIC FISHERY MANAGEMENT COUNCIL
300 SOUTH NEW STREET, FEDERAL BUILDING, ROOM 2115
DOVER, DELAWARE 19904-6790
302-674-2331
NATIONAL MARINE FISHERIES SERVICE, SOUTHEAST REGIONAL OFFICE
9721 EXECUTIVE CENTER DRIVE NORTH
ST. PETERSBURG, FL 33702
727-570-5301

This is a publication of the Gulf of Mexico; South Atlantic; and Mid-Atlantic Fishery Management Councils pursuant to National Oceanic and Atmospheric Administration Award Nos. NA04NMF4410020, NA04NMF10022; and NA04NMF4410104.

This page intentionally left blank

Table of Contents

Table of Contents for the Environmental Assessment

Abbreviations Used in This Document

ABC	Acceptable Biological Catch
AP	Advisory Panel
B	Biomass
B_{MSY}	Stock biomass capable of producing maximum sustainable yield
CEQ	Council on Environmental Quality
cm	Centimeters
CMP	Coastal Migratory Pelagics
CZMA	Coastal Zone Management Act
DSEIS/SEIS	Draft/Supplemental Environmental Impact Statement
EA	Environmental Assessment
EEZ	Exclusive Economic Zone (also known as federal waters)
EFH	Essential Fish Habitat
F	Rate of instantaneous fishing mortality, a measure of the rate at which fish are removed from the population by fishing.
FL	Fork Length
F_{MSY}	F that can sustain maximum sustainable yield
FMP	Fishery Management Plan
GMFMC	Gulf of Mexico Fishery Management Council
IFQ	Individual Fishing Quota
ITQ	Individual Transferrable Quota
m	Meters
MAFMC	Mid-Atlantic Fishery Management Council
MFMT	Maximum Fishing Mortality Threshold
MOU	Memorandum of Understanding
MP	Million Pounds
MSAP	Mackerel Stock Assessment Panel
M-SFCMA	Magnuson-Stevens Fishery Conservation and Management Act
MSST	Minimum Stock Size Threshold
MSY	Maximum Sustainable Yield
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OY	Optimum Yield
ppt	Parts per Thousand
PRD	Protected Resources Division
RA	Regional Administrator (NMFS Southeast Regional Office) (formerly Regional Director)

RFA	Regulatory Flexibility Act of 1980
RIR	Regulatory Impact Review
SAFMC	South Atlantic Fishery Management Council
SERO	Southeast Regional Office
SFD	Sustainable Fisheries Division
SPR	Spawning Potential Ratio
SSC	Scientific and Statistical Committee
SEFSC	Southeast Fisheries Science Center
TAC	Total Allowable Catch
TL	Total Length

Executive Summary

Amendment 15 to the Fishery Management Plan for Coastal Migratory Pelagic Resources in the Atlantic and Gulf of Mexico proposes to establish two actions. Action 1would establish an indefinite limited access program for the king mackerel fishery in the exclusive economic zone under the jurisdiction of the Gulf of Mexico, South Atlantic and Mid-Atlantic Fishery Management Councils. The Councils also considered letting the current moratorium expire, or extending the current moratorium for a defined period. Establishment of a limited access system that caps participation at the current level provides for long-term social and economic stability in the mackerel fisheries. Action 2 proposes to change the fishing season to March 1 through February 28/29 for the Atlantic groups of king and Spanish mackerel. The Councils also considered leaving the fishing year to start on April 1 (status quo), and starting the fishing year on January 1, consistent with other fisheries. Beginning the fishing year on March 1 ensures the mackerel fisheries in the Atlantic were open during March when several other fisheries are closed.

When establishing a limited access system, the Magnuson-Stevens Fishery Conservation and Management Act requires that councils consider several factors. These factors are discussed in various sections of this amendment and are summarized here.

(a) Present participation in the fishery
In 1998, the first year of the moratorium, there were 2,172 commercial permits for king mackerel. That number has declined to 1,683 active permits in 2004.

(b) Historical fishing practices and the dependence on the fishery
King mackerel is an important target species for the commercial fishermen throughout the Gulf and South Atlantic regions, particularly in South Florida. King mackerel fishing is conducted primarily by hook and line, and gill nets are allowed off southwest Florida and the northern part of North Carolina. The king mackerel fishery is divided into several geographical zones, with each having an allocation of the total allowable catch (TAC), based primarily on historical landings in each area. In the Gulf of Mexico, the commercial quotas are taken each year before the end of the designated fishing years; in the Atlantic, the commercial fisheries do not meet their quotas, although under lower TACs in years past, these quotas were met as well. Fishermen participate in other fisheries when the mackerel fisheries are closed (see ‘d’ below).

(c) Economics of the fishery
There are significant shifts in ex-vessel prices of king mackerel during the year because of variations in quantities of landings. The median percentage of king mackerel revenues to all logbook-reported landings by fishermen who reported landings of king mackerel ranged from 22% to 33% of annual gross revenues, equivalent to $10,663 to $12,183 per vessel during 1998-2003. The annual maximums for vessel gross revenue ranged from $372,000 to $439,000. Producer surplus in the king mackerel fishery in 2003 is estimated at $142,650 to $380,400. Under the assumption of continued decline in participation, the annual producer surplus for this fishery is forecast to increase to $166,100 to $443,000 by 2010 and $185,200 to $493,900 by 2015.

(d) Capability of vessels in the fishery to engage in other fisheries
The other major federal fisheries in the southeast are all permitted, and many are under a form of limited access. A person must acquire an existing permit to participate in the fisheries for South Atlantic snapper-grouper, Gulf reef fish, golden crab, spiny lobster, stone crab, wreckfish, shark, and tuna. Many vessels that possess commercial mackerel permits also possess permits for one or more of these other fisheries, but some do not. There are other opportunities to engage in fishing; open access fisheries include those for Spanish mackerel, dolphin, wahoo, and several fisheries that exist in state waters.

(e) Cultural and social framework relevant to the fishery and any affected fishing communities

There is very little information on fishermen, fishing-dependent businesses, or communities that depend on the king and Spanish mackerel fisheries. As noted, mackerel fisheries are open only part of the calendar year, or mackerel are only available seasonally to some communities; therefore most fishermen participate in other fisheries as well, and the communities they live in or support are not specifically "mackerel communities". Areas where king mackerel play an important role in the community include Monroe County, Florida, Dare County, North Carolina, and Lafourche Parish, Louisiana.

(f) Other relevant considerations.

Capping participation at the current level for an indefinite period would not affect the way the fishery is currently conducted, nor have any additional significant impacts on the biological or physical environment. According to letters received and responses generated at the scoping meetings and public hearings for this amendment, many of the currently permitted fishermen favor a continuation of a limited number of permits in this fishery.

The potential impacts of the proposed actions are illustrated in the following table. A plus (+) indicates an overall benefit, a minus (-) an overall impact, and "na" represents none identified or not applicable.

	Pref Alt.	Biol. Env.	Phys Env	Econ	Soc	Admin	Mitigate	Cum Effects	Unavoid adverse	Short-Long	Irreversible Irretrievable
Action 1											
Alt 1- No Action		-	na	-	-	-	na	-	na	-	na
Alt 2- Oct 15, 2010		+	na	+	+	-	na	+	na	+	na
Alt 3- Oct 15, 2015		+	na	+	+	-	na	+	na	+	na
Alt 4- Limit access	x	+	na	+	+	+	na	+	na	+	na
Action 2											
Alt1-No Action		na	na	na	na	na	na	na	na	na	na
Alt2-Mar 1-Feb 28/29	x	na	na	+	+	na	na	na	na	+	na
Alt3-Jan 1 - Dec 31		na	na	+	+	na	na	na	na	+	na

Environmental Assessment (EA) Cover Sheet

Responsible Agencies:

National Marine Fisheries Service
Southeast Regional Office
9721 Executive Center Drive, North
St. Petersburg, Florida 33702
Contact Person: Phil Steele

727-570-5305
727-570-5583 (FAX)
http://sero.nmfs.noaa.gov

Gulf of Mexico Fishery Management Council
The Commons at Rivergate
3018 U.S. Highway 301 North, Suite 1000
Tampa, Florida 33619-2272
Contact Person: Richard Leard

813-228-2815
1-888-833-1844 (toll-free)
813-225-7015 (FAX)
gulfcouncil@gulfcouncil.org
www.gulfcouncil.org

South Atlantic Fishery Management Council
1 Southpark Circle, Suite 306
Charleston, South Carolina 29407-4699
Contact Person: Kathi Kitner

843-571-4366
1-866-723-6210 (toll-free)
843-769-4520 (FAX)
www.safmc.net

Mid-Atlantic Fishery Management Council
300 South New Street, Federal Building, room 2115
Dover, Delaware 19904-6790
Contact Person: Chris Moore

302-674-2331
302-674-5399 (FAX)
www.mafmc.org

Name of Action

Amendment 15 to the Fishery Management Plan for Coastal Migratory Pelagic Resources in the Atlantic and Gulf of Mexico.

Type of Action

(X) Administrative
(X) Draft

( ) Legislative
() Final

Summary

Amendment 12 to the CMP FMP, approved in October 2000, extended the commercial king mackerel permit moratorium from its previous 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. This amendment considers extending the moratorium for a limited amount of time or replacing it with a limited access system that caps participation at the existing level upon implementation of this amendment for an indefinite period of time. It also considers changes to the fishing year for Atlantic migratory group king and Spanish mackerel in the Atlantic.

Filing Dates

Notice of Intent to prepare DSEIS published in the *Federal Register*: 2/13/04

Notice of change to an Environmental Assessment published in *Federal Register*: 8/3/04

Fishery Impact Statement

The operation of any fishery under either open or limited access affects total participation in that fishery, which in turn affects users and their individual communities. Under the current limit on access to the king mackerel fishery, participation has been limited to those vessels that qualified as of October 15, 1995, or those to which a permit was subsequently sold or otherwise transferred. Under the current system, no net increase in participation is possible. In fact, total participation in the fishery has declined since the permit moratorium was implemented in 1998. Economic performance of the fishery has improved since the implementation of the existing system with producer surplus (the difference between what a producer receives from a good or service and the economic cost to produce that good or service) in 2003 estimated at $142,650 to $380,400 (see Sections 4.0 and 7.0). Continuing to limit access (Action 1), as would be accomplished under Alternatives 2, 3 or Preferred Alternative 4, would continue the restrictions on participation and support the continued enhanced economic performance of the fishery thereby continuing the benefits to the participants and their communities. There would also be no effects on participants in adjacent areas from continuing a limit on access because king mackerel are managed jointly by the Gulf and South Atlantic Fishery Management Councils throughout the range of king mackerel in the Gulf of Mexico and the Atlantic. The SAFMC (in cooperation with the MAFMC) has authority to manage king mackerel throughout the MAFMC's area of jurisdiction.

Under an open access system, which would be established by Alternative 1 of Action 1, participation in the fishery could and likely would increase beyond current levels. Re-opening access would probably change the distribution of catch among participants. While individual participants may continue to make profits, overall fishery performance and overall economic benefits from the fishery would not be maximized. Such an increase in the number of participants could dissipate total fishery profits, and possibly cause negative effects on fishing communities that are hypothesized to have some dependence on fishing, and identified in Section 6.2.2 and discussed in Section 7.2.3 herein. A more detailed analysis of the impacts to participants and their communities relative to the alternatives for open or limited access is found in Sections 4.0 and 7.0 herein.

The specification of the fishing year (Action 2) is largely an administrative action that affects the accounting of fishing harvests and activity. Because Atlantic group king and Spanish mackerel are migratory, they are not available to all of the participants all of the time. Consequently, if total allowable catch (TAC) levels are low, the start of the fishing year could affect some would-be participants because catch quotas may be filled before the fish arrive in their area. If such a condition continued over several years, it could result in participants having to leave the fishery or move, and cause changes to a given fishing community. Such a scenario is not likely to happen in the forseeable future because Atlantic migratory group king and Spanish mackerel stocks are healthy (not overfished nor undergoing overfishing), and under current TACs and historical harvest patterns, no quota closures or other participation restraints are expected. Nearly 40% of North Carolina's annual king mackerel landings occur in November and December. Additionally, there are seasonal closures in the Snapper-Grouper fishery in March and April. Consequently, changing the fishing year could significantly affect fishing communities in this area if TAC is lowered in the future due to fishermen having no value fishery in March. Because reductions in TAC are not expected, all participants in the fishery would be expected to be able to fish as they currently do for these species, regardless of what fishing year is chosen. As previously discussed, there would also be no effects on participants in adjacent waters of another Council. A more detailed analysis of the impacts to participants and their communities relative to the alternatives for changing the fishing year for Atlantic migratory group king and Spanish mackerel is found in Sections 4.0 and 7.0 herein.

1.0 INTRODUCTION

Amendment 8, to the Fishery Management Plan for the Coastal Migratory Pelagic Resources of the Atlantic and Gulf of Mexico (CMP FMP), implemented in 1998, established a moratorium on commercial king mackerel permits until no later than October 15, 2000. At that time, the king mackerel Gulf migratory group was considered to be overfished and undergoing overfishing, thus capping participation was seen as a way to prevent the fishery from becoming overcapitalized when combined with quotas, bag limits, size limits, etc. that would allow the stock to recover. Although not overfished nor undergoing overfishing, the moratorium was applied in the Atlantic migratory group of king mackerel for purposes of consistency and to prevent participation from increasing that potentially could result in the necessity for additional management actions. The Councils' original intent in establishing a moratorium was to later replace it with a limited access system. Because of the short time frame from implementation of the original moratorium and its expiration, Amendment 12 was developed in the interim and approved in October 2000 to extend the commercial king mackerel permit moratorium from its original 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.

This amendment addresses whether to allow the current moratorium to expire on October 15, 2005, and the king mackerel fishery to revert to an open access one thereby precluding the need for this amendment. Such action would likely result in an increase in the number of permits in the fishery that in 2003 had 1,740 permits. Any increase in participation would not be expected to result in additional harvest due to the enactment of hard quotas. However, an increase in participation could affect the social and economic structure of the fishery through a reduction in individual permit holder's share of the available king mackerel stock. Other alternatives would continue to prevent new participants through possible extensions of the moratorium for a finite period of time, or to establish a limited access system for an indefinite period of time. Alternatives are reviewed and discussed in Sections 3.0, 4.0, and 7.0 of this document.

This amendment also contains alternatives to potentially change the fishing year for Atlantic migratory group king and Spanish mackerel from an April 1 through March 31 period to a March 1 through February 28/29 period, or to a January 1 through December 31 period. As discussed in Sections 3.0, 4.0, and 7.0, such a change could ameliorate the possibility of closures in the mackerel fisheries during the month of March when fisheries for other species, such as some snapper-grouper, are closed. A January 1 start would be consistent with the fishing year for other species in the Atlantic.

1.1 Description of the Fishery

Gulf of Mexico

King mackerel and Spanish mackerel are important target species of commercial, recreational, and for-hire fishermen throughout the Gulf and South Atlantic regions, particularly in South Florida. King mackerel are particularly important to the charter boat and offshore private boat fleets.

Most of the commercial fishery for king mackerel occurs in Florida, and most fish are taken in south Florida from November through March. A winter troll fishery takes place along the east and south coast, and a run-around gill-net fishery occurs in the Florida Keys (Monroe County) during January. To address the potential for derby fishing, Florida attempted to allocate king mackerel catches among fishermen in different geographic areas by subquotas and landings (trip) limits. The Florida trip limit regulations were overturned in December 1992, by a federal court ruling, and the commercial quota was quickly taken in the Florida Keys with 900,000 pounds being landed there during a 10-day period in January 1993.

A commercial hook-and-line fishery for king mackerel developed off Louisiana in the winter of the 1982-83 fishing season. This trolled-handline fishery was similar to the Florida hook-and-line fishery and was centered in the Grand Isle, Louisiana area. Due primarily to increased effort in the Western Zone, this winter fishery has not been operative since about 1990 because this area's allocation of TAC has typically been taken by the end of October. Additionally, this winter fishery included many catches of larger fish that in recent years have become less desirable or marketable. The current commercial fishery operates as both hook-and-line and gill-net components off the west coast of Florida and hook-and-line only off Alabama, Mississippi, Louisiana, and Texas. In the Gulf region, as a whole, handline gear has been the predominant gear in the king mackerel fishery since 1993. In 2003, handline gear accounted for 1.64 out of 2.38 million pounds (MP) landed, followed by run-around gill nets at 0.39 million pounds. Run-around gill nets, however, accounted for more of the Gulf total than handlines from the late 1950s through 1982 and in 1986 and 1993 (Vondruska, 2000).

The gill-net fishery for king mackerel has a long history in south Florida, particularly the Florida Keys. However, the use of this gear has been restricted under state and federal regulations (see Section 4.4.1) and Amendment 9 to the CMP FMP (April 2000) greatly restricted the ability to participate in the quota-based fishery for Gulf group king mackerel. Compared with 100 vessels in 1998, 27 vessels were permitted to participate in this fishery in 2004. Gill-net vessels tend to be 40-65 feet in length. Although the vessels have the capacity to land more, they are restricted by a 25,000 pound trip limit. Only 10% of the logbook-reported gill-net trips during 2000-2003 landed more than 7,000 to 20,000 pounds of king mackerel.

Gill nets used for king mackerel have nylon mesh with a center band of monofilament mesh. The most common mesh size used is 4-3/4 inches stretched, which is also the minimum size allowed. Nets range from 400 to 700 yards in length with an average of about 500 to 550 yards. Nets can fish effectively in waters 55 to 60 feet in depth. Gill-net vessels use power rollers for net retrieval, and aircraft are used to spot schools of king mackerel before the nets are struck or set. The nets are set encircling the school, or a part of the school, and then closed causing the fish to become entangled in the mesh.

The gill-net fishery is restricted to Monroe and Collier counties, and the fishing season opens in January on the Tuesday following the Martin Luther King, Jr. federal holiday. The fishery is open during the first weekend thereafter, but closed on subsequent weekends, until the quota is met and the fishery is closed for the year. The current quota of approximately 520,000 pounds is typically taken in a few weeks. For the first time, in 2003/2004, no in-season closure occurred for this fishery; turbid water caused difficulties in being able to spot schools of fish from the spotter planes.

King mackerel have been a popular target for recreational fishermen, throughout the Gulf, for many years. Total recreational catches were relatively stable from about 1992 to 1997 at between 6.0 and 7.5 MP; however, catches in the last 3 years (1999/00 through 2001/02) have dropped to around 4.0 to 5.2 MP (Ortiz 2004). Recreational fishing for king mackerel is an important component of the coastal economies in many areas, and it includes both direct and support industries.

Spanish mackerel have also historically been a popular commercially and recreationally targeted species, although not as important as king mackerel. Historically, the major harvest came from the commercial sector using gill nets in state waters off the east coast of Florida. From fishing years 1987/88 through 1994/95 commercial landings of Gulf group Spanish mackerel ranged from approximately 1.1 to 4.2 MP (MSAP 2003); however, following the passage of a constitutional amendment banning gill nets and certain other net gear in Florida state waters in 1995, catches declined significantly. Catches in the last 3 years (2001/02 through 2003/04) ranged from approximately 0.6 to 1.6 MP (NMFS unpublished data1). In the Gulf of Mexico, runaround gill nets

are still the primary gear used to harvest Spanish mackerel, followed distantly by handlines and cast nets.

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 actions by the Council that increased the bag limit from 3 fish in 1987 to 10 fish in 1992 and to 15 fish in 2000 (SFD 2003). This lack of change is primarily due to the lower popularity of Spanish mackerel as compared with king mackerel and other offshore stocks. Primarily because of the significant decrease in commercial catches, approximately two-thirds of the total catch has come from the recreational sector in recent years.

Atlantic

King and Spanish mackerel are major target species of commercial fisheries in Florida and North Carolina, as well as major target species for the private boat and charter boat recreational fishery throughout the South Atlantic region. Small amounts of king and Spanish mackerel are caught as an incidental catch or supplemental commercial target species off Georgia and South Carolina. Commercial landings of Atlantic group king mackerel have been relatively stable at approximately 1.7 to 2.0 MP for the last 3 years (2001/02 through 2003/04) and well below the quota allocation of 3.7 MP (SFD 2003;NMFS unpublished data).

Recreational users in general have increased in numbers over time; however, catches of Atlantic group king mackerel have remained relatively stable at slightly over 4.0 MP during most years since the early 1990's through 2002 (SEDAR 5 2004a). Increased income and the growth in coastal populations are probably the main factors responsible for the increase in recreational fishing effort in the South Atlantic region during the 1980s and 1990s. Substantial numbers of recreational participants are visitors to coastal states in the management area.

In the South Atlantic region, runaround gill nets are an important gear for Spanish mackerel, but other kinds of gill nets, cast nets, and handline gear now account for the majority of the landings. Though the effect of the State of Florida's 1995 prohibition on the use of various net gear had more of an impact on the Florida west coast (state waters extend to 9 nautical miles from shore), it did reduce landings on the Florida east coast (state waters extend to 3 nautical miles from shore). Reportedly, Spanish mackerel were concentrated more in state rather than federal waters off the Florida east coast in 2001-2003 than in 1995-2000, and cast nets may be used in state waters. Therefore, cast nets became an increasingly important gear and accounted for 1.88 out of 3.20 MP in 2003, or approximately 59% of total South Atlantic Spanish mackerel harvest. Cast nets were followed by "other" gill nets (0.44 MP), run-around gill nets (0.35 MP) and handlines (0.32 MP).

Various federal and state regulations greatly reduced the use of gill nets for king mackerel, and most are caught with handline gear. Compared with 1966-1988 when gill nets were the predominant gear for the king mackerel fishery in the South Atlantic region, king mackerel are now caught predominantly by various handline gear, which accounted for 2.78 MP out of 2.84 MP for the South Atlantic region in 2003.

Gill nets are not authorized gear for the directed commercial harvest of king mackerel, little tunny, and cobia south of Cape Lookout, North Carolina (34° 37.3'North Latitude). Off North Carolina, the majority of gill-net effort occurs within state waters. During the period between 1999 and 2003, 90% of gill-net trips targeting king mackerel were conducted south of Hatteras within 3 miles from shore using sink gill nets. In federal waters, fishermen also used sink gill nets though a small proportion (0.2%) used runaround gill nets.

The peak fishing months for king mackerel are September through November. For king mackerel, the minimum mesh size averages 5" to 6" (12.7 to15.24 cm). Typically, not more than 15 boats

participate in this fishery though the number can fluctuate. Fishermen usually fish 5 or 6 nets (400 yards in length or 365.76 m) working from one net to another throughout the day. They generally fish the gear within a couple of hours, depending on the catch. As mentioned above, this fishery is not allowed below Cape Lookout, North Carolina and is rarely prosecuted above Oregon Inlet, North Carolina.

Between 1999 and 2003, over 100 gill-net trips for Spanish mackerel were conducted per month (May through October) with effort being greatest during October (over 300 trips). Trips occurred mainly south of Hatteras (90%) of which 96% occurred within state waters. Sink gill nets are the primary gill-net gear used on Spanish mackerel trips (over 99%) with a small proportion of runaround gill nets (0.3%) and float gill nets (0.5%). The summer fishery typically involves 10 to 14 boats, and the fall fishery usually includes another 10 to 12 boats with catches generally higher after the first of September. Fishermen usually fish 3.5 inches (8.9 cm) stretched-mesh nets, the minimum mesh size allowed.

Off the east coast of Florida, cast nets have accounted for more of the landings of Spanish mackerel in recent years than gill nets, and the main season occurs in October-March, compared with May-October farther north (Figure 15). Spanish mackerel is the primary species targeted by gill nets off the Florida east coast, and the main season for this activity is September through December. Beginning in January, many of the fishermen using gill nets switch to shark fishing or they will participate in the cast net fishery that occurs in state waters. The Spanish mackerel gill-net fishery mainly occurs between Fort Pierce to just north of Cape Canaveral. Less than 30 vessels are active in the fishery with many being outfitted to use either round-around gill nets or stab nets. Vessels fishing for Spanish mackerel in the South Atlantic EEZ off Florida north of the line directly east from the Miami-Dade/Monroe County, Florida boundary (25˚20.4' N. lat.) may not have a float line longer than 800 yds (732 m), set more than one at any one time, or soak for more than 1 hour.

Bycatch data in the commercial CMP fisheries are primarily collected via logbooks, and recreational bycatch is collected by the Marine Recreational Fisheries Statistics Survey (MRFSS). Bycatch from commercial gill nets has recently been collected via the supplementary discard program, which was implemented in August 2001. A stratified, random sample (20% coverage) of commercial permit holders was selected each year and required to record their discards for each trip they made. For the first survey period (8/01-7/02), 15 vessels with gill-net gear were selected to fill out discard report forms. For the second survey period (8/02 to 7/03), 14 vessels with gill-net gear were selected to report. Overall, menhaden, smooth dogfish sharks, and spiny dogfish sharks were the three most frequently discarded species. There were no interactions of sea turtles or marine mammals reported (Poffenberger 2004).

Note: A more detailed description of the economic and social aspects of the commercial fishery is provided in Section 4.0 herein.

1.2 History of Management

The CMP 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 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 that were allowed 6% of the commercial allocation of TAC, were eliminated. The Gulf commercial allocation for king mackerel was divided into Eastern and Western Zones for the purpose of regional allocation, with 69% of the remaining allocation provided to the Eastern Zone and 31% to the Western Zone. Amendment 1 also established minimum size limits for Spanish mackerel at 12 inches fork length (FL) or 14 inches total length (TL) and for cobia at 33 inches FL or 37 inches TL.

Amendment 2, with environmental assessment (EA), implemented in July of 1987, revised Spanish mackerel MSY 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 required, 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 gill nets for coastal pelagics and purse seines for the overfished groups of mackerels.

Amendment 4, with EA, implemented in October 1989, reallocated Atlantic 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 groups of mackerels through the MAFMC'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 SAFMC will be responsible for pre-season adjustments of TACs and bag limits for the Atlantic migratory groups of mackerels while the GMFMC 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 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 group king mackerel may be taken only by hook-and-line and run-around gill nets;
- Imposed a bag and possession limit of two cobia per person per day;
- Established a minimum size of 12 inches (30.5 cm) FL or 14 inches (35.6 cm) 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 king mackerel stock identification and allocation when appropriate;
- Provided for commercial Atlantic Spanish mackerel possession limits;
- Changed commercial permit requirements to allow qualification in one of three preceding years;
- Discontinued the reversion of the bag limit to zero when the recreational quota is filled;
- Modified the recreational fishing year to the calendar year; and
- Changed the minimum size limit for king mackerel to 20 inches FL, and changed all size limit measures to 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 suballocation 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 group king mackerel fishery by allowing only hook-and-line and run-around gill nets. However, catch by permitted, multi-species vessels and bycatch allowances for purse seines were maintained;
- Established allowable gear in the SAFMC and MAFMC areas as well as providing for the RA to authorize the use of experimental gear;
- Established the Councils' intent to evaluate the impacts of permanent jurisdictional boundaries between the GMFMC and SAFMC and development of separate FMPs for coastal pelagics 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 1 of the 3 previous calendar years, but allowed for a 1-year grace period to qualify under permits that are transferred;
- Legalized retention of up to 5 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 SAFMC with authority to set vessel trip limits, closed seasons or areas, and gear restrictions for Gulf 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 I);
- Expanded the management area for cobia through the MAFMC's area of jurisdiction (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 group, Eastern Zone, South/West Area (Florida west coast) by establishing 2 subzones with a dividing line between the 2 subzones at the Collier/Lee County line;
- Established regional allocations for the west coast of Florida based on the 2 subzones with 7.5% of the Eastern Zone allocation of TAC being allowed from Subzone 2 and the remaining 92.5% being allocated as follows:
  - 50% - Florida east coast
  - 50% - Florida west coast that is further subdivided:
    - 50% - Net Fishery
    - 50% - Hook-and-Line Fishery
- Established a trip limit of 3,000 pounds per vessel per trip for the Western Zone;
- Established a moratorium on the issuance of commercial king mackerel gill-net endorsements and allow re-issuance of gill-net endorsements to only those vessels that: (1) had a commercial mackerel permit with a gill-net endorsement on or before the moratorium control date of October 16, 1995 (Amendment 8), and (2) had landings of king mackerel using a gill net in one of the two fishing years 1995-96 or 1996-97 as verified by the National Marine Fisheries Service (NMFS) or trip tickets from the FDEP; allowed transfer of gill-net endorsements to immediate family members (son, daughter, father, mother, or spouse) only; and prohibited the use of gill nets or any other net gear for the harvest of Gulf group king mackerel north of an east/west line at the Collier/Lee County line;
- Increased the minimum size limit for Gulf group king mackerel from 20 inches to 24 inches FL;
- Allowed the retention and sale of cut-off (damaged), legal-sized king and Spanish mackerel within established trip limits.

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

Amendment 11, with SEIS, partially approved in December 1999, included proposals for mackerel in the SAFMC's Comprehensive Amendment Addressing Sustainable Fishery Act Definitions and other Provisions in Fishery Management Plans 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 National Marine Sanctuaries Act.

Amendment 14, with EA, implemented July 29, 2002, established a 3-year moratorium on the issuance of charter vessel and head boat Gulf 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 other provisions for eligibility, application, appeals, and transferability.

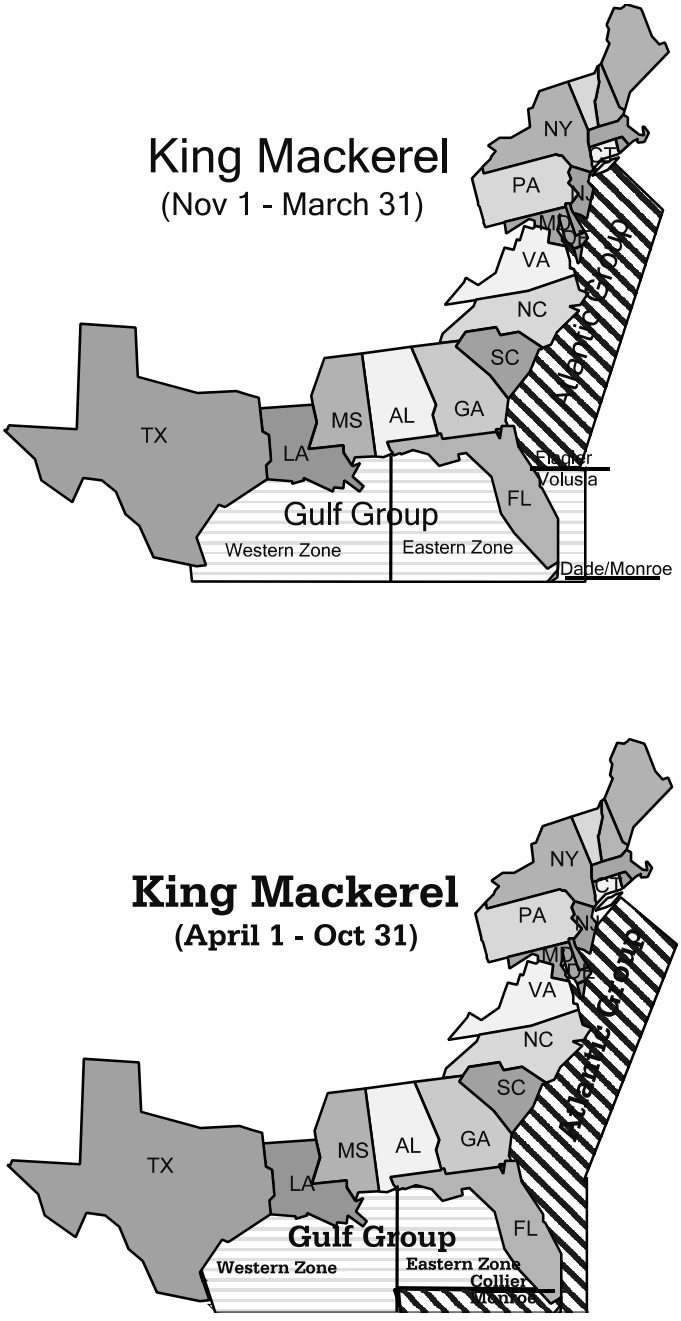


Figure 1a. Seasonal boundaries and divisions of the Gulf and Atlantic migratory groups of king mackerel.

1.3 Current Management Measures

The present management regime for king mackerel recognizes two migratory groups, the Gulf migratory group and the Atlantic migratory group. Allocations were established for recreational and commercial fisheries, and the commercial allocation was divided between net and hook-and-line fishermen. For the purpose of allocating a limited resource among users, the management plan set ratios based on historic, unregulated catches. The Atlantic Migratory Group of king mackerel is allocated with 62.9% to recreational fishermen and 37.1% to commercial fishermen. For Gulf migratory group king mackerel the allocation is 68% recreational and 32% commercial. These groups mix on the east coast of Florida; however the extent of mixing is not well understood. For management and assessment purposes, a boundary between groups was specified as the Volusia-Flagler County border on the Florida east coast in the winter (November 1-March 31) and the Monroe-Collier County border on the Florida southwest coast in the summer (April 1-October 31) (Figure 1a). For allocation of the commercial fishery, the Gulf migratory group is also divided into Eastern and Western Zones at the Florida-Alabama border with 69% of the commercial allocation provided to the Eastern Zone and 31% provided to the Western Zone (Figure 1a). The Eastern Zone is further subdivided into two subzones with 7.5% of the allocation going to the area between the Alabama/Florida border and the Collier/Lee County line on the west coast of Florida (Northern Subzone). The remaining commercial share of TAC (92.5%) is allocated as follows:

50% - Florida east coast
50% - Florida west coast (Monroe and Collier Counties - Southern Subzone) that is further subdivided:
- 50% - Net Fishery
- 50% - Hook-and-Line Fishery

The commercial fishery for Gulf group king mackerel is regulated using both size limits and trip limits, as well as hard quotas, under which the fishery in various areas is closed when those respective quotas are met. Trip limits vary by geographic area and gear. The minimum size limit is 24 inches FL, and the commercial fishing season begins on July 1, with the exception of the commercial gill-net fishery. The trip limit in the Western Zone hook-and-line fishery is currently set at 3,000 pounds. The trip limit for the Florida west coast hook-and-line fishery is set at 1,250 pounds until 75% of the allocation is taken, and then it reverts to 500 pounds until the remaining 25% of the allocation is taken or the season ends. Gill nets used to harvest king mackerel may only be used in federal waters of Monroe and Collier Counties in Florida beginning each year on the Tuesday following the Martin Luther King, Jr. federal holiday until the quota is met or until March 31, whichever comes first. The trip limit for gill-net vessels is 25,000 pounds, and the stretched mesh must equal 4.75 inches or larger.

The Gulf group king mackerel recreational fishery is governed by a 24-inch FL minimum size limit and a 2-fish per person per day bag and possession limit.

In the Atlantic, the regulations for the commercial fishery are similar, with the fishing year beginning on April 1 and ending on March 31, if the commercial quota has not already been met. For the area in Florida between the Volusia/Flagler and Monroe/Collier county boundaries, king mackerel are considered part of the Atlantic migratory group from April 1 through October 31.

The current commercial quota for Atlantic migratory group king mackerel is 3.71 million pounds (MP), and all fish must be landed with head and fins intact. Authorized commercial gears for Atlantic migratory group king mackerel north of Cape Lookout Light (34° 37.3' North Latitude), North Carolina are all gears, except drift gill nets and long gill nets. South of Cape Lookout, authorized gear includes automatic reel, bandit gear, handline, and rod and reel. A minimum size of 4.75-inch stretched mesh is required for run-around gill nets. No more than 400,000 pounds may

be harvested by purse seines. Fishermen may possess undersized king mackerel less than or equal to 5% by weight of the king mackerel onboard.

Trip limits are in effect for this fishery. From New York to the Flagler/Volusia county line, from April 1 to March 31, the trip limit is 3,500 pounds. From the Flagler/Volusia county line to the Volusia/Brevard County line from April 1 through October 31, the trip limit is 3,500 pounds. From the Volusia/Brevard to the Miami-Dade/Monroe county line, from April 1 to October 31, the trip limit is 75 fish. In Monroe County through the Florida Keys, the trip limit is 1,250 pounds.

There is a minimum size limit of 24 inches FL for both the commercial and recreational harvest of Atlantic migratory group king mackerel. The recreational catch is managed by a bag limit of 3-fish per person per day from New York through Georgia, and 2-fish per person per day off the east coast of Florida. These regulations (bag and size limits) are intended to achieve the recreational allocation of 6.29 MP; however there is no "hard quota" whereby the recreational fishery closes. If the allocation is exceeded, the Council will take action to reduce the bag limit and/or alter the minimum size limit. Federal and state bag limits may not be combined. Charterboat and headboat operators must possess a vessel permit and must comply with bag limits; however, on trips of more than 24 hours, two bag limits may be possessed.

Spanish mackerel and cobia are managed separately by the GMFMC and the SAFMC with a line of separation at the Dade/Monroe County line in Florida. The SAFMC also manages dolphin in the Atlantic under its Dolphin/Wahoo FMP. Cobia are managed by a 33-inch FL minimum size limit and a 2-fish per person bag and possession limit for both the commercial and recreational sectors. The commercial fishery for Spanish mackerel is governed by a 7.04 MP TAC in the Atlantic, and a 9.1 MP TAC in the Gulf. The TACs are divided 55%/45% (Atlantic) and 57%/43% (Gulf) for the commercial and recreational fisheries, respectively. A minimum size limit of 12 inches FL and a bag/possession limit of 15 are imposed for Spanish mackerel in both the Atlantic and Gulf; and the fishing season extends from April 1 through March 31 of each year, unless there is a quota closure for the commercial fishery.

1.4 Current Status of the Stocks

The Gulf migratory groups of king and Spanish mackerel were determined to be overfished in the mid 1980s, and a rebuilding program of reduced TACs was implemented. Under this reduced TAC rebuilding program, both stocks improved to a level that in 1995 the mackerel stock assessment panel (MSAP) recommended that they no longer be considered as overfished under the stock status criteria established at that time.

Following the implementation of the Sustainable Fisheries Act, which amended the Magnuson-Stevens Fishery Conservation and Management Act (M-SFCMA) in 1996, the SAFMC (in 2000) and the GMFMC (in 2004) amended their stock status determination criteria for king and Spanish mackerel. Based on these revised criteria, the current status of the king and Spanish mackerel stocks in the Gulf and Atlantic are as follows:

<u>King Mackerel</u>
Neither the Atlantic nor Gulf groups of king mackerel are considered overfished or undergoing overfishing. The 2003 stock assessment for Atlantic group king mackerel indicates that biomass during the 2001/2002 fishing year ($B_{2001/2002}$) was estimated to be 1.22 times the biomass required to produce MSY (B_{MSY}). There was a 25% probability that B_{2003} was less than MSST, where MSST = 1-M(BMSY) and M=0.15. Fishing mortality (F) for the 2002/2003 fishing year ($F_{2002/2003}$) was estimated to be 56% of F_{MSY}. There was a 4% probability that $F_{2002/2003}$ was greater than MFMT (F_{MSY}). For Gulf group king the biomass (B) has not fully recovered to B_{MSY}. $B_{2001/2002}$ is 93% of B_{MSY}. Projecting forward, there is only an 18% probability that B_{2003} was less than MSST, where

MSST = 1-M(B_{MSY}) and M=0.2. Fishing mortality (F) continues to be below F_{MSY} and F_{OY} ($F_{2001/2002}$ was 59% of F_{MSY}), and projecting forward, there was only a 17% probability that $F_{2002/2003}$ was greater than MFMT (F_{MSY}). These low fishing mortalities are allowing the stock to continue to recover under the current management regime.

Spanish Mackerel

Neither the Atlantic nor Gulf groups of Spanish mackerel are considered to be overfished or undergoing overfishing. For Atlantic group Spanish mackerel, $B_{2002/2003}$ was estimated to be 1.78 times the biomass required to produce MSY (B_{MSY}), and there was less than a 1% probability that B_{2003} was less than MSST, where MSST = 1-M(B_{MSY}) and M=0.3. Current fishing mortality ($F_{2002/2003}$) was estimated to be 58% of F_{MSY}, and there was a 3% probability that $F_{2002/2003}$ was greater than MFMT (F_{MSY}). For Gulf group Spanish mackerel, $B_{2002/2003}$ was estimated to be 1.34 times the biomass required to produce MSY (B_{MSY}), and there was a 3% probability that B_{2003} was less than MSST, where MSST = 1-M(B_{MSY}) and M=0.3. Current fishing mortality ($F_{2002/2003}$) was estimated to be 53% of F_{MSY}, and there was a 9% probability that $F_{2002/03}$ was greater than MFMT (F_{MSY}).

2.0 PURPOSE AND NEED FOR ACTION

Action is needed if the Councils intend to either extend the existing moratorium on the issuance of commercial vessel permits for king mackerel beyond October 15, 2005, or to replace it with a limited access system. An expiration of the moratorium would probably result in an influx of new permit holders, thus changing the present and more recent historical level of participation in the fishery. Such an increase in participation would not be expected to result in additional harvest due to the imposition of hard quotas. However, an increase in participation could affect the social and economic structure of the fishery through a reduction in present individual permit holder's ability to catch and sell the same amount of fish.

In the Gulf of Mexico, the quota allocations for Gulf group king mackerel have historically been met in the Western Zone and in the Northern and Southern Subzones on the west coast of Florida, as well as the gill-net allocation. Furthermore, the current number of fishery participants, especially in the Gulf of Mexico, has demonstrated the capability of harvesting their allowable catch well in advance of the closing of the fishing season. Opening the fishery to new participants would probably hasten these closures, and current participants would have little opportunity to make up a loss of harvest by switching to other fisheries due to the fact that reef fish, shark, tuna, and other offshore fisheries in the Gulf and Atlantic are also managed under some form of limited access.

Additionally, the current fishing year for Atlantic migratory groups of both king and Spanish mackerel extends from April 1 through March 31. For Atlantic group king mackerel, the fishing year coincides with the occurrence of the stock throughout its full range through South Florida. For Atlantic group Spanish mackerel, this season was established to coincide with the separation of Gulf and Atlantic migratory groups and to fairly distribute commercial fishing opportunities geographically. This fishing year has resulted in the Atlantic group king mackerel commercial quota being taken 3 times. However, if TAC is reduced, the potential exists in the future for the quota to be filled and the fishery to be closed in March. A March closure could adversely affect the social and economic stability of South Atlantic fisheries due to other March commercial closures currently in place. For example, the red porgy fishery is closed January through April, and the gag and black grouper fishery is closed in March and April. The Councils are considering a change in the fishing year to start March 1 as opposed to April 1 in order to prevent the possibility of multiple commercial fishery closures at the same time and to ensure that the king mackerel fishery is open in the month of March. A January 1 start of the fishing year would increase consistency among management plans in the Atlantic and reduce complexity due to multiple fishing years. Consequently, the Councils are considering a potential change in the fishing year for Atlantic groups of king and

Spanish mackerel from April through March to January through December or March through February.

The purpose for this amendment is to provide for social and economic stability in the mackerel fisheries by continuing to cap participation in the commercial king mackerel fishery at current levels (Action 1) and by redefining the fishing year for Atlantic group king and Spanish mackerel (Action 2). Capping participation in the commercial king mackerel fishery is an integral part of the overall management strategy to achieve OY and maximize the overall benefits to the Nation. Such management has resulted in the continued rebuilding of Gulf group king mackerel, and in maintaining healthy populations of Atlantic group king mackerel. Redefining the fishing year for Atlantic group king and Spanish mackerel would mitigate the potential adverse social and economic effects associated with a closure of the king mackerel fishery in March when other fisheries are closed in the Atlantic.

3.0 MANAGEMENT ALTERNATIVES

Action 1. Alternatives to maintain the commercial king mackerel fishery at current levels of participation and possible reductions through attrition.

ALTERNATIVE 1: No Action - After October 15, 2005, the commercial king mackerel permit moratorium will expire. There will be no limit on the number of commercial king mackerel vessel permits issued by NMFS, but applicants will need to meet the income qualification requirement before a new permit will be issued.

ALTERNATIVE 2: Extend the commercial king mackerel permit moratorium for another 5 years to expire on October 15, 2010. Such permits will be renewable and transferable in the same manner as currently prescribed.

ALTERNATIVE 3: Extend the commercial king mackerel permit moratorium for another 10 years to expire on October 15, 2015. Such permits will be renewable and transferable in the same manner as currently prescribed.

PREFERRED ALTERNATIVE 4: Establish a limited access system for the commercial fishery for Gulf and Atlantic group king mackerel. A commercial king mackerel limited access permit will replace the existing commercial king mackerel permit, and a separate Gulf gill-net permit will replace the current gill-net endorsement in the Gulf. All vessels with valid permits and/or endorsements on the date that this amendment is approved will be issued such permits, and they will be renewable and transferable in the same manner as currently prescribed for general permits and gill-net endorsements in the Gulf, respectively.

Discussion: The current moratorium only applies to participation in the commercial king mackerel fishery. If an extension to the existing moratorium or a permanent access limitation system is not established (Alternative 1), the fishery will revert to open access with the likelihood of an increase in the number of king mackerel permittees. Such inaction and an increase in the number of permittees could force the need for additional regulations and jeopardize the Councils' ability to manage this fishery to achieve OY as prescribed by the M-SFCMA, which would cause a reduction in the overall benefits of this fishery to the Nation. Because the king mackerel fisheries in the Gulf and Atlantic are managed using hard quotas, increases in commercial harvest would not occur as a result of the fishery returning to open access; however, since most of the regional quotas in the Gulf are currently harvested each year, the additional participation that could ensue would probably result in earlier closures, and individual vessel's catch would be reduced. Consequently, the "no action" alternative would not cause significant biological impacts to target species as discussed below and

in Section 7.0. The potential social and economic impacts of "no action" would be greater and are discussed under "socioeconomic impacts" below and in Sections 4.0 and 7.0 of this amendment.

The choice of Alternatives 2 or 3 would continue the moratorium on the issuance of new king mackerel permits for a 5-year or 10-year period, respectively. Because these alternatives would set a finite period for continuing the moratorium, the Councils could be faced with the same choices as at present, i.e., either let the moratorium expire, continue it for some period, or replace it with some other form of limited access. Such choices could necessitate preparation of an additional amendment and increase the administrative burden.

On the other hand, the number of active permits has declined over the past seven years. The number of permits increased from 1987/88 and peaked in 1995/96 before beginning the recent decline. At the start of the 1998/99 fishing season for Gulf group king mackerel (July 1, 1998), there were 2,172 commercial permits for king mackerel and king mackerel in combination with Spanish mackerel. (Note: This was the first full year following implementation of the king mackerel permit moratorium, and these numbers are applicable for both the Gulf and Atlantic). As of July 2003, there were 1,740 active permits for king mackerel; on February 6, 2004 there were 1,734 active permits; and in August 2004 there were 1,683 active permits. This reduction could be indicative of a decline in the industry's interest in this fishery that could continue into the future. If declines continue, setting a finite expiration date for the moratorium, as with Alternatives 2 and 3, may not be necessary because the fishery may reach an optimal level of participation that does not result in early quota closures. The same may also be said for establishing a limited access system that is in essence a permanent moratorium, as with Preferred Alternative 4. Perhaps a more likely scenario would be that the industry has been stabilizing over the past 6 or 7 years. This theory is supported by the fact that the magnitude of the reduction in the number from year to year has been decreasing since 1998 (Table 1).

Because king mackerel permits have value and may be transferred without restrictions, individuals wishing to exit the fishery might be more likely to sell their permits as opposed to simply letting them expire, particularly if the aforementioned trend of slowed reduction in the number of permits continues. If the fishery were to revert to an open access system, as with Alternative 1, permits would no longer have value, and it is probable that new permittees would enter the fishery. It is also likely that such action would invite speculators to obtain permits even if they do not wish to fish them in hopes that future management actions would reinstate an access closure. However, new entrants would have to satisfy the earned income requirement in order to maintain their permits, as would the participants under any of the choices of maintaining the moratorium or limiting access permanently. Consequently, the more precautionary approach would be to maintain a cap on additional participation through either a permit moratorium extension (Alternatives 2 or 3) or an indefinite extension, i.e., a limited access system (Preferred Alternative 4). Such action would provide greater social and economic stability and allow the Councils to continue to monitor the fishery to determine if the reduction in the number of valid permits continues or stabilizes.

The choice of Preferred Alternative 4 would appear to provide the greatest flexibility to management because it maintains a permit cap for an indefinite period of time. This indefinite cap is preferable for two reasons. First, if the decline in permits does not continue, or it takes longer than 10 years to reach a level of participation where the various commercial segments of the Gulf group king mackerel fishery remain open all year; an additional amendment would not have to be developed to continue the limit on access, thus saving administrative resources for other management activities. Second, the Councils' previously stated purpose for establishing the moratorium and a reason for continuing it was to allow time to evaluate various forms of limited access, including but not limited to individual fishing quotas (IFQs) or individual transferrable quotas (ITQs). If the Councils are strongly considering an IFQ strategy or a more complex limited access system, Preferred Alternative 4 would provide the additional time to further develop qualification criteria and other components

of such strategies that may take longer than a 5- or 10-year period. Additionally, under Preferred Alternative 4 existing permits would simply become limited access permits, and Gulf gill-net endorsements would become Gulf gill-net permits. Qualification for issuance or renewal would remain the same as currently prescribed by existing laws, regulations, or policies. Consequently, there would be little, if any, confusion and administrative burden. There also should be some social and economic benefits associated with providing the fishery with an indication of future stability regarding their participation.

Alternatives 2, 3, and Preferred 4 are tantamount to continuing the current moratorium as a limited access system for the king mackerel fishery. The impacts of initially establishing this moratorium and continuing it are described in Amendments 8 and 12. An analysis of the continuation of this limit on access as required by Section 303 (b) (6) (A through F) of the M-SFCMA, as well as other impacts are included in this section as well as in Sections 4.0 and 7.0 and summarized in the Executive Summary.

Biological Impacts: There should be no measurable adverse biological impacts from the choice of any of the alternatives to either allow the moratorium to expire, extend it for 5 or 10 years, or replace it with an access limitation system. Although allowing the moratorium to expire (Alternative 1) would probably result in an increase in the number of permits and potentially an increase in participation in the commercial king mackerel fishery, no additional harvest should occur because the commercial fishery for both the Gulf and Atlantic migratory groups is primarily regulated by hard quotas. When commercial quotas under the respective TACs for any of the respective zones or subzones are met, the commercial fishery in these respective zones and subzones is closed.

Consequently, allowing additional participants to enter the fishery would only distribute the available quotas among a larger number of participants. If this occurs, fishing seasons in the various zones would likely be shorter. Any adverse biological effects of open access and an increase in the number of participants would be limited to the possibility of overruns if the fishery could not be closed in a timely manner as a result of this increased participation. Reduced enforcement effectiveness as a result of the increased number of participants could also exacerbate the problem of overruns of the commercial allocations of TAC. However, any such problems are expected to be minimal because the current monitoring system has worked well in recent years with commercial catches being constrained to quotas or either slightly above or below allocations in some years (Figures 1 and 2). Furthermore, F values in recent years have been below F_{MSY}, and in 2003, F was below F_{OY} (NMFS, unpublished data2). Additionally, unused quota in a given year is not carried over to the subsequent year, thus there are biological savings.

An increase in participation as is likely to occur with Alternative 1 is not likely to result in any significant increase in bycatch or bycatch mortality. Bycatch is limited in the commercial king mackerel fishery because much of it is incidental harvest and is marketable. When the commercial quotas for king mackerel are reached, participants are not expected to continue to fish for Spanish mackerel, dolphin, or other species that might coexist with king mackerel, thus increasing regulatory discards. Landings of Spanish mackerel have been considerably below available TACs for over 10 years, although king mackerel closures have consistently occurred in the Gulf. There has been no observed shift to target Spanish mackerel when those closures have occurred; therefore, such a shift would not be expected in an open access fishery, either. Furthermore, the commercial catch of dolphin is only approximately 5% of the total catch, and this fishery is not regulated in the Gulf EEZ. Also, the commercial allocations of TAC for both Atlantic and Gulf group king mackerel are only about one-third of the total harvest; consequently, the recreational sector is likely to have a larger share of the total bycatch. Finally, the major contributor to bycatch of king mackerel is shrimp trawling, not directed finfish gears (SEDAR 5 2004b). The biological and ecological impacts on bycatch are discussed in further detail in Section 7.2.2.

Increased participation in the king mackerel fishery due to opening access is not likely to affect other fisheries. These new participants would have little opportunity to switch to other commercial fisheries due to the fact that reef fish, shark, tuna, and other offshore fisheries in the Gulf and Atlantic are managed under some form of limited access.

To the extent that the continuation of the moratorium (Alternatives 2 or 3), or more especially an indefinite limited access system (Preferred Alternative 4) maintains or further reduces participation in the fishery, some biological improvement and accelerated recovery of the Gulf group king mackerel stock may occur. However, such impacts, if any, would likely be insignificant due to the fact that permits would remain transferrable, and the major factor affecting commercial harvest is the hard quotas.

Socioeconomic Impacts: The operation of a fishery under open or limited access affects total participation in the fishery, which influences effort applied and subsequent levels of profit and net benefits in the fishery. Under the current program to limit access, participation is limited to those vessels already permitted to operate in the fishery or prospective participants that purchase a permit from an existing vessel. Total participation can either remain constant or decline, should participants allow their permits to expire rather than transfer them to a new entity. No net increase in participation is possible. In fact, as discussed in Section 5, total participation in the fishery has declined since the permit moratorium was implemented in 1998. Under a limited access system, economic efficiencies can be enhanced and the economic performance of the fishery improved. Producer surplus in 2003 is estimated at $142,650 to $380,400. Continuing the program to limit access, as would be accomplished under Alternatives 2, 3 and Preferred Alternative 4, would continue the restrictions on participation and support the continued enhanced economic performance of the fishery. Under the assumption that such restrictions improve the economic and social situation, the three alternatives would provide such benefits for differing time frames (5 years, 10 years, or indefinitely [unless replaced by subsequent actions of the Councils]).

Under an open access system, which would be established by Alternative 1, participation in the fishery could increase beyond current levels, subject to participants meeting commercial fishery permit qualification criteria (see Section 5). Entry would not be limited to the replacement of exiting participants. Under open access systems, the number of participants typically increases to the point where total fishery profits are dissipated. While individual participants may continue to make profits, overall fishery performance suffers and overall economic benefits from the fishery are not maximized. A more complete analysis of socioeconomic impacts is contained in Sections 4.0 and 7.0 herein.

Action 2. Alternatives to change the fishing year for Atlantic migratory group king and Spanish mackerel.

ALTERNATIVE 1: No Action. The current fishing year for both king and Spanish Atlantic migratory groups is April 1 through March 31.

PREFERRED ALTERNATIVE 2: Change the Atlantic migratory group king and Spanish mackerel fishing year to begin March 1 rather than April 1. The fishing year would be March 1 through February 28/29.

ALTERNATIVE 3: Change the Atlantic migratory group king and Spanish mackerel fishing year to begin January 1 rather than April 1. The fishing year would be January 1 through December 31.

Discussion: The current fishing year for Atlantic migratory groups of both king and Spanish mackerel extends from April 1 through March 31 (Alternative 1). For Atlantic group king mackerel,

the fishing year coincides with the present occurrence of the stock throughout its full range through South Florida. For Atlantic group Spanish mackerel, this season was established to coincide with the separation of Gulf and Atlantic migratory groups and to fairly distribute commercial fishing opportunities geographically. This fishing year has worked well, and the commercial quota for Atlantic group king mackerel has only been met one time. However, if the TAC, particularly for Atlantic group king mackerel is lowered in the future, there is a potential for the quota to be filled and the fishery closed in March. A March closure would have adverse impacts on fishermen due to other March commercial closures currently in place. Red porgy is closed January through April, and gag and black grouper are closed in March and April. Consequently, the Councils considered a change in the fishing year for Atlantic group king and Spanish mackerel from April through March to March through February (Preferred Alternative 2). The Councils also analyzed a January 1 through December 31 fishing year (Alternative 3).

The effects of a change in the fishing season from a start of April 1 to March 1 (Preferred Alternative 2) can be demonstrated using Atlantic migratory group king mackerel data from 1998/99. If the commercial quota had been set at 2.5 MP (the midpoint of the ABC range at F_{OY}), instead of the actual 3.12 MP quota (the midpoint of the ABC range at F_{MSY}) with an April 1 start, landings would have exceeded the quota sometime in early March and the fishery would have been closed. On the other hand, had the fishing year begun on March 1st, the month of March would have been open for mackerel fishing. There would have been little impact to fishermen in Northeast Florida and no impact in Southeast Florida and the Florida Keys because these fishermen are harvesting Gulf migratory group king mackerel from November 1 through March 31. Nevertheless, under the current TAC, no closures are anticipated; however a March 1st opening would ensure that the king mackerel fishery is open during the month of March when other fisheries are closed.

Establishing a fishing year for Atlantic group king and Spanish mackerel that is consistent in practice with other fisheries (as with Alternative 3) would be expected to generate administrative and regulatory benefits associated with consistency. These benefits include simplification of monitoring and assessment activities, as well as less confusion to the fishermen as to when the different seasons begin in the Atlantic region. The fishing year for most fisheries follows the calendar year, January 1 through December 31, and it also coincides with the collection and evaluation of commercial data. Consequently, this period represents the standard for consistency. Although consistency is desirable, where possible, averting the potential negative impacts to fishermen from a March closure would appear to be more important.

Biological Impacts: None of these alternatives for changing the fishing year or no action are likely to alter current catches of Atlantic group king and Spanish mackerel because the fisheries for both Atlantic group king and Spanish mackerel are governed by hard quotas under which the fisheries are closed if a quota is reached. As previously discussed, there would also be little opportunity for fishermen to move to other commercial fisheries or areas in the wake of earlier closures because most of those fisheries are also governed by hard TACs and/or permit moratoria. There is a remote possibility that existing and possible additional management measures not limited to quota reductions for several species in the snapper-grouper complex could shift effort toward king mackerel during the January through April period in the Atlantic. If this shift occurred and resulted in additional participation and increased landings of king mackerel in the future, the current quota (or a reduced quota) might be harvested and the fishery closed during the same time period that fisheries for several snapper-grouper species are closed. Indirectly, such a shift could impact the quantity and composition of bycatch, where effort shifts from bottom fishing to surface trolling. However, if such a shift occurred there would probably be beneficial biological impacts to bycatch because there are fewer bycatch species that are caught trolling than bottom fishing, and those species are less exploited than many of the reef fish stocks. Additionally, most of the incidental catch from trolling is marketable, thus it is not considered bycatch and not discarded. In summary, it is not possible to predict what might happen in terms of changes in effort, but from a biological

standpoint, there are no differences in the impacts to king and Spanish mackerel for Alternative 1 (no action), the Preferred Alternative 2 and Alternative 3. Any biological impacts to other species would be insignificant, and are not likely to occur at all (see further discussion in Section 7.2.2).

Socioeconomic Impacts: From an economic and social standpoint, specification of the fishing year affects the accounting of harvests and activity. Consistency among fishing years for the various fisheries and FMPs could decrease regulatory confusion among fishermen. If the accounting does not affect the timing (when participants fish) or intensity (how much the participants fish), then, by extension, the accounting would not affect who the participants are. Under current TACs and historical harvest patterns in the Atlantic migratory group king and Spanish mackerel fisheries, no quota closures or other participation restraints are expected. Therefore, all participants in the fishery would be expected to be able to fish for these species as they currently do, and no adverse social or economic impacts would be expected.

However, existing and possible future management measures for other species, particularly in the snapper-grouper complex, could shift effort toward king mackerel. If this shift results in increased king mackerel landings in the future, the quota may be harvested and the fishery closed. Should a closure occur when other fishery closures exist, then alternative fishing opportunities would be limited and socioeconomic losses would result. This condition is of particular concern in March, when substantial closures in the snapper-grouper fishery exist (see Section 4.5.1). This scenario has the greatest likelihood of occurrence under Alternative 1, since an April opening ensures that any quota closure would occur in at least March. Although both Alternatives 2 and 3 likely would result in the king mackerel fishery remaining open in March, thus avoiding the negative socioeconomic impacts of a March closure, only Alternative 2 would guarantee such, absent the imposition of a 0-pound TAC, i.e., closed fishery.

Establishing a fishing year that is consistent with that of most other fisheries would be expected to generate the intangible and unquantifiable benefits of consistency. These benefits relate to the simplification of monitoring and assessment activities that occurs when different fisheries share the same time frame of focus. Deviation from a standard or norm adds confusion and increases the time required to conduct necessary analyses. The fishing year specification for most fisheries follows the calendar year, January 1 through December 31 and, therefore, represents the standard for consistency.

Alternative 3 would be the most consistent with this standard, since it is identical to the standard and, therefore, would generate the most, but unquantifiable benefits. Alternative 1, the no-action alternative, would not be expected to generate any of these benefits and would, rather, be expected to continue to produce the negative effects of deviation from the standard.

Preferred Alternative 2 would ensure that the fishery is open in March during closures for other fisheries. This could provide greater social and economic stability to the king mackerel fishery if the quota was reduced. Preferred Alternative 2 would change the current specification, but not mirror the standard; therefore it would not be expected to produce the benefits of consistency nor would it lessen regulatory confusion. Instead, this alternative would be expected to increase the negative effects of the status quo since it would establish a new specification that would be simultaneously inconsistent with the historic specification and the specification used for most other fisheries. However, these negative effects are considered secondary to the benefits (avoided adverse impacts) that would accrue to guaranteeing that the fishery remains open in March.

4.0 REGULATORY IMPACT REVIEW

4.1 Introduction

The National Marine Fisheries Service (NOAA Fisheries) requires a Regulatory Impact Review (RIR) for all regulatory actions that are of public interest. The RIR does three things: (1) it provides a comprehensive review of the level and incidence of impacts associated with a regulatory action; (2) it provides a review of the problems and policy objectives prompting the regulatory proposals and an evaluation of the major alternatives that could be used to solve the problem; and (3) it ensures that the regulatory agency systematically and comprehensively considers all available alternatives so that the public welfare can be enhanced in the most efficient and cost effective way.

The RIR also serves as the basis for determining whether any proposed regulations are a "significant regulatory action" under certain criteria provided in Executive Order 12866 (E.O. 12866) and whether the approved regulations will have a "significant economic impact on a substantial number of small business entities" in compliance with the Regulatory Flexibility Act of 1980 (RFA).

4.2 Problems and Objectives

The purpose and need, issues, problems and objectives of the proposed rule are presented in Section 2.0 and are incorporated herein by reference. In summary, the purpose of the proposed rule is to provide stability in the Southeast commercial king mackerel fishery as part of the overall strategy to achieve optimum yield and maximize the overall benefits to the Nation provided by the fishery and insure that the Atlantic group king mackerel fishery is open in March.

4.3 Methodology and Framework for Analysis

This RIR assesses management measures from the standpoint of determining the resulting changes in costs and benefits to society. To the extent practicable, the net effects should be stated in terms of producer and consumer surplus, changes in profits, employment in the direct and support industries, and participation by commercial fishermen, for-hire fishermen, and private anglers.

In addition to changes mentioned above, the public and private costs associated with the process of developing and enforcing fishing regulations in waters off the U.S. Atlantic and Gulf coasts are provided.

4.4 Description of the Commercial Fisheries

4.4.1 History and Current Status

Action 1 of the proposed Amendment provides for a choice between continuing limited access and reverting to open access in the commercial king mackerel fishery. A market-based limited access system was promulgated under Amendment 8 to the CMP FMP in March 1998 and extended via Amendment 12 (October 2000). Under this system, a moratorium on the issuance of new permits was established and private markets for existing permits served to allocate access to the fishery among current and prospective commercial users. This market established the price required to exchange existing permits between vessels seeking to exit and enter the fishery. This system has prevented an increase in the number of permitted vessels, but contained no requirement to effect a decrease in the number of participating vessels from the fleet that developed under decades of open access. This approach was consistent with the purpose of the permit moratorium which was to provide stability in the commercial fisheries and to prevent speculative entry.

While this system has been in place since March 1998, other regulations in the fishery may have a greater effect on determining how and when commercial fishing for king mackerel will occur in the future, regardless of whether the fishery operates under limited or open access. These regulations were determined necessary during the past thirty years to rebuild stocks of king and Spanish mackerel and to reduce incidental catch and mortality of protected and other species, including state and federal regulations on allowable gear that have substantially reduced the use of gill nets for king and Spanish mackerel; gill nets are the leading gear for Spanish mackerel. Nevertheless, regardless of the intent and stated purpose of these regulations, complex sets of command-and-control regulations rather than price and market mechanisms have determined access to fishery resources and allocated their use among fishermen throughout the world.

Development of the FMP began in approximately 1978, following the enactment of the Fishery Conservation and Management Act (FCMA), but it was not implemented until February 1983. Substantial reductions in TAC and other changes were determined necessary to rebuild stocks of king mackerel and Spanish mackerel. Changes in TAC have been based on periodic stock assessments. The FMP divided the king mackerel stock into two migratory groups and established fixed-percentage allocations (quotas) for each group's TAC. These TACs are subsequently divided among the recreational and commercial sectors. The FMP established commercial trip limits, recreational bag limits, and minimum size limits for fish. It further specified allowable gear for the EEZ, and requires fishery closures for the commercial sector when the commercial quota is harvested. Gulf group king mackerel was considered as overfished and undergoing overfishing at the time of approval of Amendment 1 to the CMP FMP (1985). Today, almost thirty years later, neither migratory group of king mackerel is considered overfished or undergoing overfishing. However, the Gulf group has not been rebuilt to the point to support harvests at MSY.

King and Spanish mackerel harvest data are provided in Tables 1 through 13 and Figures 1 through 16. Localized or regional quota-based commercial fishery closures occur regularly for Gulf group king mackerel, although these closures are not apparent in Figure 1 which compares the quota and revised data on landings for the group as whole.[1] Reported harvests in the Atlantic migratory group king mackerel have exceeded the quota only three times since 1987, with landings typically falling quite short of the quota in most years, as shown in Figure 2.

Landings of Atlantic migratory group Spanish mackerel have fallen short of the quota in recent years (Figure 3), and the fishery is managed via daily trip limits rather than fishery closures. In New York-Georgia, a daily trip limit of 3,500 pounds applies all year, but affects fishing mostly in May-October when landings are seasonally high, as shown in Figure 15 (50 CFR § 622.44 [b]). For the Florida east coast, landings are seasonally high in October-March (Figure 15). The 3,500 pound daily trip limit applies from April 1 through November 30 on the Florida east coast, but staged reductions in daily trip limits occur between December 1 and March 31 as landings approach the quota. The staged trip limits start at unlimited amounts on weekdays and 1,500 pounds on weekends and drop to 500 pounds if 100% of the adjusted quota is harvested.[2]

[1]The most recent quotas in Figures 1-3 are from 50 CFR § 622.42 (c), as revised Feb 9, 2004.

[2]For the Florida east coast from December 1 until 75% of the adjusted quota is reached, unlimited daily trip limits apply Monday-Friday, and 1,500 pound daily trip limits apply on Saturday and Sunday (50 CFR § 622.44 [b]). When 75% of the adjusted quota is reached, 1,500 pound daily trip limits apply to all days. When 100% of the quota is reached, 500 pound daily trip limits apply to all days. The adjusted quota is 3.62 MP, whereas the quota is 3.87 MP (respectively, 50 CFR § 622.44 [b] and 50 CFR § 622.42 [c] [2] [ii]).

Bag limits are used to manage recreational fishing for king and Spanish mackerel. Also, bag limits are used to control incidental commercial landings of king mackerel by vessels without commercial king mackerel permits.[3] The sale of king and Spanish mackerel caught in the EEZ and landed under the bag limit may not be sold when the respective commercial fishery is closed. Bag limits, however, are not reduced to zero when the recreational quota is reached (effective November 1992, Amendment 6), so no recreational quota closure occurs. Recreational landings routinely exceeded the annual quotas until the 1997/98 fishing year for Gulf group king mackerel, have exceeded annual quotas for the Atlantic group king mackerel on two occasions since 1987, and have exceeded the annual quota for Atlantic group Spanish mackerel in only one year, 1990/91 (Figures 4 through 6).

Table 2 and Figure 7 provide a long-term view of the respective fisheries using calendar year data: (1) total commercial landings of king mackerel began to fall after reaching a peak in 1974, and now approximate their level in the early 1960s, (2) landings via gill nets have been greatly reduced, while landings via hand lines have been relatively flat since the early 1980s but are higher than in earlier years, and (3) most of the landings still occur in Florida, although large amounts of landings now occur in Louisiana and North Carolina. Deteriorating stock conditions and Florida state regulations help explain the substantial reduction in commercial landings of both king and Spanish mackerel between the mid-1970s and the mid-1980s (Figure 7 and 8; Tables 2 and 3). As far as possible, Florida controlled harvests to manage and rebuild stocks of king and Spanish mackerel until the mid-1980s. That is, whether the fish were caught in state or federal waters, Florida had court-upheld jurisdiction over all fishermen operating from its ports, until such time as federal regulations were implemented.

In July 1995, a Florida Constitutional Amendment was implemented that prohibits the use of certain net gear in state waters (the "Florida net ban"). As seen in Figures 7 and 8, this regulation does not seem to have had much, if any, effect on king mackerel, but landings of Spanish mackerel fell after July 1995, especially on the Florida west coast where state waters extend to 9 nautical miles from shore, though an impact is still apparent on Florida's east coast where state waters extend to only 3 nautical miles from shore (Figure 3). The difference in economic impact of the Florida action on king and Spanish mackerel commercial fishing may be explained by pre-existing prohibitions on the use of gill nets for king mackerel, as well as by the fact that the two mackerels are more commonly found at different distances from shore and, thus, differentially sensitive to different regulations in federal and state waters.

Other, more recent federal regulations affect the use of gill nets in waters off the Georgia coast and the Florida east coast in the winter months when right whales, king mackerel and Spanish mackerel are expected to be present. Gill nets are allowable gear for Spanish mackerel and shark, though the specifications and deployment differ. Under the Atlantic Large Whale Take Reduction Plan, the use of straight sets of gill nets at night, specifically shark gill nets, is prohibited in the southeast U.S. restricted area in waters off the coast southward from Savannah, Georgia to Sebastian Inlet, Florida from November 15 to March 31, when right whales are most likely to be present.[4] Farther south

[3]See 50 CFR § 622.4 (a) (iii), permits; § 622.39 (c), bag limits; § 622.43 (a) (3), fishery closures. In an exception, a person aboard a vessel with a valid for-hire permit (charter or headboat boat permit) for coastal migratory fish and a valid commercial permit for king or Spanish mackerel may retain such fish during a commercial fishery closure, providing that the vessel is being operated as a for-hire vessel (50 CFR § 622.43 [a] [3] [ii], fishery closures).

[4]*Federal Register*, vol. 67, no. 84, September 23, 2002, pp. 59471-59477, effective date October 23, 2002. Among other things, this regulation is intended to reduce human-caused mortality and serious injury to right whales. The U.S. southeast restricted area consists of those waters from 27° 51' North Latitude (near Sebastian Inlet, Florida) to 32° 00' North Latitude (near Savannah, Georgia) extending from shore outward to 80° West Longitude.

(from Sebastian Inlet to West Palm Beach, Florida), in the U.S. observer area, onboard observers were required from November 15 to March 31, as of April 1, 1999.[5] For shark, regulations specify webbing with a stretched mesh size of 5 inches or greater versus 3.5 inches for Spanish mackerel and 4.75 inches for king mackerel (Ibid.; NR98-016, March 13, 1998; 50 CFR § 622.41 [c] [3], gill nets).

While gill nets are the leading gear for Spanish mackerel, most gill-net catch of king mackerel now occurs in the EEZ off Monroe and Collier Counties, Florida, under an exception to the CMP FMP regulation on allowable gear that permits using run-around gill nets under a quota for the Gulf migratory group "southern Florida west coast subzone" (50 CFR § 622.41 [c] [ii]). Under the only other exception to the FMP regulation on allowable fishing gear for king mackerel, any gear may be used north of Cape Lookout Light, North Carolina (north of 34° 37.3' North latitude), apart from drift gill nets, long gill nets and generally prohibited fishing gear (methods) (50 CFR § 622.41 [c] [i] [A], allowable gear; 50 CFR § 622.31, prohibited gear and methods).

Gill nets accounted for 1.54 out of 1.64 MP of Spanish mackerel landings in the Gulf region in 2003 (NMFS, unpublished data). A change in gear utilization in the Atlantic region occurred in 2001-2003, notably along the Florida east coast. Prior to 2001, cast nets accounted for no more than 12% of total South Atlantic Spanish mackerel harvests. Likely as a result of the Florida net ban, cast nets, however, have become an increasingly important gear and accounted for 1.88 out of 3.20 MP in 2003, or approximately 59% of total South Atlantic Spanish mackerel harvest. Cast nets were followed by "other" gill nets (0.44 MP), run-around gill nets (0.35 MP) and handlines (0.32 MP). Compared with 1966 through 1988 when gill nets were the predominant gear for the king mackerel fishery in the South Atlantic, king mackerel are now caught predominantly by various handline gear, which accounted for 2.78 out of 2.84 MP for the South Atlantic region in 2003. In the Gulf region, handline gear has been the predominant gear in the king mackerel fishery since 1993, and accounted for 1.64 out of 2.38 MP, followed by run-around gill nets, 0.39 MP in 2003. Run-around gill nets, however, accounted for more of the Gulf total than handlines from the late 1950s through 1982 and in 1986 and 1993 (Vondruska 2000).

4.4.2 Ex-vessel Prices

Annual real ex-vessel prices (2001 dollars) for king mackerel, Spanish mackerel, and dolphin (mahi-mahi) during the calendar years 1962 through 2002 are shown in Figures 9 and 10 for the Atlantic coast states (Maine through Florida east coast) and Gulf coast states (Florida west coast through Texas). Although dolphin are not a subject of this amendment, they compete in the same markets as king and Spanish mackerel. On an annual average basis, real ex-vessel prices of king mackerel and dolphin have tended to be higher on the Atlantic coast than the Gulf coast. The ex-vessel prices may vary for several reasons. Ex-vessel prices of king mackerel, the U.S. market and estimated imports of king mackerel and possible substitute species have been described and analyzed using econometric models (Easeley et al. 1993; Vondruska and Antozzi 1999; Vondruska 1999). The model results indicate that demand for king mackerel is relatively price elastic for the U.S. market as a whole. That is, compared with any given percentage change in market supply, the expected percentage change in ex-vessel price is much smaller, holding other factors constant.

[5]The U.S. southeast observer area extends southward from 27° 51' North Latitude (near Sebastian Inlet, Florida) to 26° 46.5' North Latitude (West Palm Beach, Florida (*Federal Register*, vol. 64, no. 30, February 16, 1999, map and text, pp. 7539-7540). The rule became effective on April 1, 1999. "*Shark gillnetting* means to fish a gill net in waters south of the South Carolina/Georgia border with webbing of 5 inches or greater stretched mesh" (Ibid., p. 7552).

The models indicate statistically significant shifts in ex-vessel prices of king mackerel during the year because of variations in landings. Landings of king mackerel exhibit extreme seasonal variation in some major harvest areas, more so for the Gulf group than the Atlantic group (Figures 11 and 12), and this affects the annual average ex-vessel price (Figures 9 and 10). Ex-vessel prices and landings tend to vary widely and in opposite directions in Monroe and Collier Counties, Florida, where landings peak in January-March (Figure 11). In Alabama-Texas, ex-vessel prices are lower on average for the year because the monthly supply to seafood distributors occurs mostly in July-September and because the fish is reportedly larger in size in those months and, hence, less valuable to the seafood trade than smaller fish.

4.4.3 Logbook Indicators of Commercial Fishing Activity for King Mackerel, 1998-2003

As shown in Table 1, the number of vessels that had active federal permits to fish commercially for king mackerel declined by 20% from 2,172 in 1998 to 1,740 in 2003 (data for July 15 of each year).[6] Only about half of these permitted vessels had logbook-reported nominal landings of king mackerel (at least one pound of harvest) in each respective year, varying from 1,066 vessels in 1998 to 951 vessels in 2003.[7]

The median harvest per vessel for vessels with active permits and nominal landings of king mackerel ranged from 941 to 1,324 pounds of king mackerel per vessel per year during 1998 through 2003 (Table 1). It should be noted that these amounts are annual medians (50^{th} percentiles) and not averages; e.g., in 1998, half of the 1,066 vessels landed between 1 pound and 941 pounds, while the other half landed more than 941 pounds. Medians are used for comparison rather than averages since vessel performance is not normally distributed. At the lower end of the annual frequency distributions of vessels respecting pounds landed, 25% of the vessels landed only 144 to 238 pounds or less per year (25^{th} percentiles), or roughly 14 to 24 individual fish per year assuming an average of 10 pounds each per fish. The 25% of vessels at the upper end of the annual frequency distributions landed more than 3,791 to 5,219 pounds per year (75^{th} percentiles). Hence, there is substantial difference in vessel performance and averages may not adequately represent fleet performance.

---

[6]Since the early 1990s, fishermen have completed and submitted FMP-mandated logbooks for commercial fishing trips for Gulf reef fish, Atlantic snapper-grouper, shark, and, since 1998, king and Spanish mackerel. The data base management systems for fisherman-supplied logbooks and southeast coastal state-collected commercial landings are administered by the NOAA Fisheries Southeast Fisheries Science Center, Miami. It should be noted that landings of king mackerel by vessels with federal permits for fishing for Highly Migratory Species (HMS) are reported in separately administered logbooks for trips for those species and they are not described here. The computerized data files for federal fishing permits used here were obtained from the NOAA Fisheries Southeast Regional Office, Fisheries Permits Team, St. Petersburg. Files were obtained on the following dates: permits, February 6, 2004; permits for July 15 for each year, 1998 through 2003, April 8, 2004; logbooks, March 16, 2004; northeast landings for 1998 through 2003 (Maine-Virginia), April 2, 2004 and 1962 through 1997, previously; and southeast landings for 2000 through 2004 (North Carolina to Texas), March 22, 2004 and 1962 through 1999, previously.

[7]Landings of king mackerel in Table 1 are generally lower than those in Table 2. Most of the difference may be explained as follows: (1) NOAA Fisheries southeast coastal fisheries logbook-reported landings of king mackerel totaled 29.3 MP during 1998-2003, including landings of incidental catch by vessels without permits for commercial fishing for king, compared with the 27.6 MP for vessels with those permits, as shown in Table 1, (2) vessels with federal permits for fishing for Highly Migratory Species (HMS) report landings of king mackerel in the separate logbook for those species, and those landings do not appear in Table 1, and (3) some landings of king mackerel may occur in state waters or in other circumstances in which reporting via NOAA Fisheries logbooks may not be required.

For all vessels, the median length was 31 feet; half of the vessels were 25 to 39 feet long. Overall, the median number of trips per year for king mackerel was 6 to 7 trips and 20 to 22 trips per year for all logbook-reported landings of fish.[8] The median percentage of king mackerel revenues to all logbook-reported landings ranged from 22% to 33% of annual gross revenues, or $10,663 to $12,183.[9] The annual maximums for vessel gross revenue ranged from $372,000 to $439,000.

As shown in Table 5, for all vessels with king mackerel permits and king mackerel landings (at least one pound), the total number of logbook reported fishing trips for the year with at least one pound of king mackerel landings ranged from 14,511 to 15,752 trips a year from 1998 through 2003. Most of the trips were day trips, and the crew included just the captain. The median harvest of king mackerel on these trips ranged from 98 to 134 pounds valued at $173 to $213, and $278 to $355 in gross revenue for all fish landed. Ten percent of the trips involved landings of king mackerel of more than 535 to 617 pounds and 10% involved estimated gross revenue for all logbook-reported fish of more than $1,338 to $1,974 (respective 90th percentiles).

4.4.4 Vessel Permits, Vessel Entry-Exit, and Limited Access versus Open Access Fishing for King Mackerel

Since the September 1985 implementation of Amendment 1 to the FMP, any vessel that engages in commercial fishing for king mackerel in the EEZ has been required to have a federal fishing permit, and for many years there was just one type of permit for commercial fishing for Spanish and king mackerel. Thirteen years later, Amendment 8 (March 1998) established a moratorium on federal permits for vessels to fish commercially for king mackerel, and included a qualification date of October 16, 1995, for initial participation. The moratorium was extended from October 15, 2000, to October 15, 2005 by Amendment 12. The proposed Amendment addresses the expiration of the moratorium, in addition to re-defining the fishing year. A 3-year moratorium on permits for charter and headboat fishing for coastal migratory pelagic species in the Gulf of Mexico was established by Amendment 14 (implemented July 29, 2002,) with a control date for eligibility of March 29, 2001. Amendment 8 (March 1998) increased the earned income requirement for the person who qualifies a vessel for a permit for commercial fishing for king mackerel or Spanish mackerel. Earned income from commercial fishing and for-hire (charter or headboat) fishing must be at least 25% of that person's total earned income, or at least $10,000 must be derived from commercial fishing (harvest and first sale of fish) in 1 of 3 previous calendar years, allowing for a 1-year grace period to qualify under permits that are transferred (50 CFR § 622.4, permits and fees).

Commercial king mackerel permits are exchanged in the public market, and the prices are estimated to range from $1,500 to $4,000. Receipt of this payment provides the owner of the exiting vessel with some, albeit modest, compensation for leaving the fishery and, in theory, represents the net value to the individual of access to the resource. The sum of the dollar amounts (between zero and $4,000) for all vessels in the fishery represents the capitalized value of access to the fishery resource on an annual basis over time. In other words, the all-vessel sum represents the capitalized value of the annual producer surplus (the difference between what a producer receives from a good or service and the economic cost to produce those goods or services) or annual economic rent, if any, that

[8]Vessels with king mackerel permits and landings averaged 6 to 7 trips a year for king mackerel (25th percentiles, 2-3 trips; 75th percentiles, 13-17 trips) and they averaged 20 to 22 trips per year for all fish (25th percentiles, 9-10 trips; 75th percentiles, 37-39 trips).

[9]Dollar values estimated as explained in Table 1, footnote 1. Among vessels with king mackerel permits and landings, that fish accounted for 22% to 33% of their estimated annual gross revenue for all logbook-reported landings, $10,663 to $12,183 (annual medians; 25th percentiles, 2% to 3%; 75th percentiles, 83% to 92%; 25th percentiles, $3,649 to $4,283; 75th percentiles, $33,193 to $40,116).

accrues to individual fishery participants in differing amounts. Annual producer surplus for vessels with permits and nominal landings of king mackerel is estimated at $142,650 to $380,400 for 2003, based on current permit prices.[10] This represents 2% to 6% of the 6-year annual average for estimated gross revenue of king mackerel in 1998 to 2003, or $6.724 million (Table 5).

Permit prices would be expected to differ based on the time horizons implied under current regulations, i.e., the period of time during which access to the fishery is expected to be accommodated or limited. However, given successfully functioning private markets for vessel permits, it is not unreasonable to assume that fishermen believe that the Councils have established a precedent to encourage regulated private market mechanisms, that is the establishment of market-based limited access to replace open access to the fishery resources. Conceptually, common property, open access fishery resources provide a classic example of tragedy of the commons, that is, failure of private markets to allocate use of resources that have economic value. Executive Order 12866 states:

> Federal agencies should promulgate only such regulations as are required by law, are necessary to interpret the law, or are made necessary by compelling public need, such as material failures of private markets ... (Executive Order 12866 of September 30, 1993, Regulatory Planning and Review, Title 3, Section 1; *Federal Register*, vol. 30, no. 190, October 4, 1993, p. 51735).

The market-determined price of a king mackerel permit understates the full, permit-related vessel entry cost (vessel exit proceeds) because an economically viable vessel is likely to have or require permits to operate in other fisheries. Among vessels that had permits for commercial fishing for and landings of king mackerel during 1998 through 2003, the median percentage of king mackerel revenues to total gross revenues from all logbook-reported finfish ranged from 22% to 33%, $10,663 to $12,183 in 2001 dollars (Table 1). The permit-related entry cost (exit proceeds) for an economically viable vessel could be $7,000 to $60,000, based on the market-determined prices for federal permits for commercial fishing.[11] About one-fifth of the vessels with currently valid/active commercial king mackerel permits (that may or may not be actively fished in any given year) are new entrants.[12] However, the number of exiting vessels exceeded the number of entering vessels during 1998 through 2003, meaning that the number with valid/active permits declined. Vessel exit may occur for a variety of reasons, including low or negative net income from fishing over a period of years (Ward and Sutinen, 1994).

---

[10]As a crude approximation, producer surplus for 951 vessels with king mackerel permits and nominal landings of king mackerel in 2003 (Table 1) was estimated as follows. It is assumed that the expected value of annual economic rent per vessel over a 5-year time period without discounting is between zero at the margin and the price for a permit, $1,500 to $4,000. The sum refers to the triangular area above an input-based supply curve for king mackerel, with number of vessels measured on the horizontal axis: 951 * $1,500 /(2 * 5)= $142,650; 951 * $4,000 / (2 * 5) = $380,400.

[11]The market-determined prices for federal permits for commercial fishing which have been estimated as follows: $1,500-$4,000 for a king mackerel permit, $5,000-$8,000 for a Gulf reef fish permit, $35,000 to $50,000 for a Class 1 Gulf red snapper license (2,000 pound trip limit), $2,000 to $4,000 for a Class 2 Gulf red snapper license (200 pound trip limit), and $5,000 to $15,000 for an Atlantic snapper-grouper permit with an unlimited trip limit (the only kind of snapper-grouper permit that can be transferred). Source: personal communication, NOAA Fisheries, Southeast Regional Office, Fisheries Permits Team, April 2004.

[12]The one fifth for "new entrants" was obtained as follows. The population of vessels that can be associated with permits for commercial fishing for king mackerel at a recent, single point in time (February 6, 2004), exclusive of the duplication, included 1,734 vessels with active or inactive permits. These 1,734 vessels included 1,386 that had originally issued permits, and 348 that had transferred permits; 0.2 = ([348 vessels with transferred permits] / [1734 vessels active or inactive permits]).

The median net income for the 1,467 vessels that fished commercially for king mackerel in 1997 was $3,670 from average gross revenues of $15,019 (Vondruska 1998, Table 6e).[13] Vessels varied widely in net income; 25% reported losses (negative net income) while another 25% had net income of $12,000 or more. For the 298 vessels that fished for Spanish mackerel in the same year, the respective figures were $4,895 and $20,321 (Vondruska 1998, Table 6g).

Net vessel income from fishing is not equivalent to profit because it is based on earned (taxable) income from fishing for the permit-qualifying person, usually the captain and owner-operator of one vessel. The concept of earned income from fishing (gross revenue minus fishing expense) that may be used by NOAA Fisheries to determine qualification for a permit traces to Internal Revenue Service Form 1040, Schedule C for individuals. If gross revenue from fishing does not cover the annual cost of fishing to the owner-operator over a period of years, cessation of fishing or business failure is likely, and the renewal of the vessel's permits is unlikely.

Regardless of the reason of exit, the number of vessels with federal permits for commercial fishing for king mackerel declined at an average annual rate of 4.5% from 1998 through 2003.[14] However, the number of permitted vessels with landings of king mackerel, which is a subset of total permitted vessels, declined by a lower rate, approximately 2.2% a year over the same period.

Based solely on the fact that only half of the vessels with active permits for commercial fishing for king mackerel in any one year during 1998 through 2003 had landings of king mackerel in the same year, it is possible to overstate the problem of latent, unfished, or speculative permits since a single year perspective will not reveal active fishing in other years. For example, among 1,734 vessels with permits on February 6, 2004, 1,001 vessels had landings of 500 pounds or more of king mackerel in at least 1 of the 6 years 1998 through 2003, but only 194 vessels had such landings in each of the 6 years (Table 6).

4.5 Impacts of Management Measures

The proposed Amendment contains two actions. Action 1 deals with the expiration (the no-action alternative) or extension (for 5 years, 10 years, or indefinitely) of the existing moratorium on the issuance of new commercial king mackerel permits. Action 2 addresses specification of the fishing

[13]The set of 1,467 vessels was selected using three criteria: (1) if they had permits for commercial fishing for mackerel (king and Spanish mackerel, type of permit = CM) in 1997, (2) if king mackerel was among the top four fish in value of sales, as indicated on the permit application, and (3) if hand/troll lines or gill nets were among the top four gear, as indicated on the permit application (Vondruska 1998, Table 6e). The gross is higher than for logbook-reported commercial landings (Table 1), because all gross from commercial and for-hire fishing is included, and because more vessels with nominal landings of king mackerel were likely excluded (footnote 1, Table 1).

[14]While the number of observations is small statistically, and the results do not offer any economic explanation for the decline, an ordinary least squares regressions was specified and estimated using the 6 observations in Table 1, where year = 1998 ... 2003:

(number of permitted vessels) = 176316.6 - 87.1714 * year.
t=15.22 t=-15.06

The average rate of decline of 4.5% was obtained as follows: 0.045 = 87 / 1930, where 1930 is the average number of vessels with commercial permits to fish for king mackerel in the EEZ in 1998-2003. Using data for the first and last years only, Table 1 shows that the number of vessels that had active permits for commercial fishing for king declined by 20% from 2,172 in 1998 to 1,740 in 2003 (data for July 15 of each year).

year for Atlantic migratory group king and Spanish mackerel. A description of the expected impacts of each action and alternative is contained in the following sections.

Action 1. Alternatives to maintain the commercial king mackerel fishery at current levels of participation and possible reductions through attrition.

ALTERNATIVE 1: No Action - After October 15, 2005, the commercial king mackerel permit moratorium will be allowed to expire. There will be no limit on the number of commercial king mackerel vessel permits issued by NMFS, but applicants will need to meet the income qualification requirement before a new permit will be issued.

ALTERNATIVE 2: Extend the commercial king mackerel permit moratorium for another 5 years to expire on October 15, 2010. Such permits will be renewable and transferable in the same manner as currently prescribed.

ALTERNATIVE 3: Extend the commercial king mackerel permit moratorium for another 10 years to expire on October 15, 2015. Such permits will be renewable and transferable in the same manner as currently prescribed.

PREFERRED ALTERNATIVE 4: Establish a limited access system for the commercial fishery for Gulf and Atlantic group king mackerel. A commercial king mackerel limited access permit will replace the existing commercial king mackerel permit, and a separate Gulf gill-net permit will replace the current gill-net endorsement in the Gulf. All vessels with valid permits and/or endorsements on the date that this amendment is approved will be issued such permits, and they will be renewable and transferable in the same manner as currently prescribed for general permits and gill-net endorsements in the Gulf, respectively.

A discussion of these alternatives is presented in Section 3.0 and is incorporated herein by reference. The current commercial permit moratorium applies to king mackerel only.

Currently, vessel entry into the fishery occurs via a private market for permits that was initiated under the provisions of Amendment 8 to the FMP. Income qualification criteria must also be met to enter the fishery. Under the current moratorium, if a vessel enters the fishery, another must exit. Even though permit prices might be expected to differ according to the time horizons for expected use implied by the different moratorium alternatives, it is not unreasonable to assume that fishermen believe that a precedent for indefinite use of a limited access system and access management via private market mechanisms (as in Preferred Alternative 4) has been established, such that current permit market prices, as well as those expected in the future, are based on an assumption of an indefinite rather than temporary system.

Alternative 1 (open access) would remove the conditions that are necessary if a regulated private market is to be used to manage entry of new vessels and access to the commercial king mackerel fishery by potential participants. Vessels would no longer have to purchase an existing permit from the private market and could, instead, simply obtain a new permit from NOAA Fisheries, subject to qualification criteria. Although there is currently attrition in the fishery such that permits are expiring/exiting the fishery rather than being sold or transferred at no cost, suggesting that there is a lack of strong financial incentive and/or demand to enter the fishery, the elimination of the moratorium would be expected to result in an increase in permits and participation, since the process to obtain a permit would be simplified and some portion of the current attrition may be due to an imperfect permit market (sellers may have difficulty locating buyers and buyers may have difficultly locating sellers). This increase could reduce the average per vessel king mackerel landings, hence increasing the cost per pound landed, and reduce producer surplus below the estimated $142,650 to $380,400 for 2003, potentially to the point of eliminating all producer surplus. However, jeopardy

to the quota or status benchmarks (i.e., cause the resource to undergo overfishing or become overfished) is not expected since commercial fishing for king mackerel is managed using hard quotas, trip limits, minimum size limits, and limitations on allowable gear.

Alternatives 2, 3 or Preferred Alternative 4 (limited access) would continue to limit access and the private-market system for managing vessel entry and resource access set to expire in 2005. While other outcomes are possible, such as stabilization of the fleet at some point, it is reasonable to assume that the number of permitted vessels will continue to decline for some period of time, as seen in 1998 to 2003, although, as discussed previously, a mandated decline is not required under the permit moratorium program. It should be recalled that the decline in vessels is attributed to factors other than the moratorium, such as general economic conditions in the fishery. Assuming these average rates of decline continue (4.5% in permitted vessels and 2.2% in vessels landing king mackerel), starting with 2003 vessel totals in the entire Southeast commercial king fishery (1,740 permitted vessels and 951 vessels with king mackerel landings), an estimated 1,260 vessels would be expected to be permitted and 814 vessels would be expected to land king mackerel in 2010, when the moratorium established by Alternative 2 would expire. The respective totals for Alternative 3 are 1,001 vessels and 728 vessels in 2015. These totals compare with the 2,172 vessels and 1,066 vessels in 1998.[15] Similar projections could be provided for Preferred Alternative 4, but the assumption of a continued 4.5% decline becomes less reasonable the further the forecast is extended, rationale does not exist to identify reasonable alternative rates of decline, and a reasonable period of evaluation is not obvious. Therefore, this projection will not be attempted.

Assuming that the commercial quotas for king mackerel are not reduced, harvests are stable, and other regulations or external factors do not impose additional or increased costs or inefficiencies, then sufficient decline in the number of permitted vessels would be expected to increase the average landings of king mackerel for remaining vessels, reduce the cost per pound landed and, thereby, increase the producer surplus for the fishery. It should be recalled that the annual producer surplus for king mackerel permitted vessels permits and landings of king mackerel was estimated at $142,650 to $380,400 for 2003, based on current prices of permits. Assuming that the rate of increase in producer surplus as a result of this attrition matches the decline in vessel permits for vessels that land king mackerel, 2.2%, the average annual producer surplus by 2010 is estimated to range from approximately $166,100 to $443,000, and $185,200 to $493,900 by 2015.

It should be noted that although Alternatives 2, 3 and Preferred Alternative 4 imply managerial regimes of different duration, the regulations imposed on a fishery can be changed at any time through appropriate regulatory action. Thus, a continuation of the limit on access imposed by any of the alternatives could be terminated prior to the specified time in the alternative. Preferred Alternative 4 specifically differs from Alternatives 2 and 3 in that, action would be mandated in order to continue the systems under Alternatives 2 and 3 and not under Preferred Alternative 4, otherwise the systems would expire. As described below, the administrative and development cost of the current action is estimated to be $200,000. Adoption of Preferred Alternative 4 would eliminate the mandatory incurrence of this expenditure if continuation of the system beyond 5 or 10 years were determined to be the preferred management strategy for this fishery.

Summary: Limited access via permit moratorium was begun in the commercial king mackerel fishery in 1998 and provides for marketed-based compensation to those wishing to exit the fishery through the sale of permits. Such, compensation, however, represents a cost of entry to those

[15]The 4.5% rate of decline is compounded annually, and the resulting factor is applied to the number of permitted vessels in 2003: 5 years later, 1340 ≅ 1,740 * 0.79; 10 years later, 1,098 ≅ 1,740 * 0.63. The factor for 5 years was obtained as $(1-.045)^5 = (0.955)^5 \cong 0.79$. The factor 10 years was obtained as $(1-.045)^{10} = (0.955)^{10} \cong 0.63$.

seeking to enter the fishery. Under the current system, the total number of permits and the number of vessels that actually land king mackerel on an annual basis has declined by an average of 4.5% per year in terms of total permits since the initiation of the moratorium on access. The permit market provides an economically rational basis for regulating entry into the fishery and allocating access to fishery resources among potential users. Alternatives 2, 3, and Preferred Alternative 4 would continue to limited access for differing periods of time, thereby continuing the market-based participation system. Although the rate of decline may change, assuming the number of permitted vessels continues to decline by 4.5% per year, the number of permitted vessels is estimated to be 1,260 in 2010 (in 5 years under Alternative 2) and 1,001 in 2015 (in 10 years under Alternative 3). No projections are made for Preferred Alternative 4 due to the lack of specificity of an indefinite moratorium. A decrease in the number of permitted vessels would lead to an expected decrease in the number of vessels landing king mackerel and, thereby, to an expected increase in producer surplus from that in 2003, an estimated $142,650 to $380,400.

A return to open access conditions, as would occur under Alternative 1, is expected to lead to an increase in the number of permitted vessels sufficient to potentially dissipate the current producer surplus, estimated at $142,650 to $380,400 in 2003.

Action 2. Alternatives to change the fishing year for the Atlantic migratory group king and Spanish mackerel.

ALTERNATIVE 1: No Action. The current fishing year for both king and Spanish Atlantic migratory groups is April 1 through March 31.

PREFERRED ALTERNATIVE 2: Change the Atlantic migratory group king and Spanish mackerel fishing year to begin March 1 rather than April 1. The fishing year would be March 1 through February 28/29.

ALTERNATIVE 3: Change the Atlantic migratory group king and Spanish mackerel fishing year to begin January 1 rather than April 1. The fishing year would be January 1 through December 31.

Average commercial landings for Atlantic migratory group king mackerel over the most recent 5 fishing years, 1998/99 through 2002/03, were 2.09 MP, well below the quota of 3.71 MP (Table 4, Figure 2). Landings of Atlantic migratory group Spanish mackerel were 2.92 MP over the respective period compared to the quota of 3.80 MP (Figure 3). Neither migratory group is considered to be overfished or undergoing overfishing.

Assuming average harvests and quotas continue at these levels, there would be no economic impact associated with any of the alternative specifications of the fishing year since fishing patterns and performance would not be affected. Any change in the fishing year would simply alter the administrative accounting of harvests and fishing activity. All participants in the fishery could continue to operate as they currently do, with no alteration of timing or intensity of effort directed at these species. Therefore, no changes in average harvest quantities or profits received per participant would be expected. Similarly, historic patterns of product distribution through normal market channels would be expected, thereby inducing no changes in this sector. In summary, no changes in producer or consumer surplus to the Nation as a whole would be expected.

If fishery conditions change as a result of future quota reduction or an increase in harvest pressure from current or other commercial operations currently targeting other species sufficient to induce a commercial closure of either of the mackerel fisheries, then short-term adverse economic impacts to the fishery would occur, regardless of which alternative is adopted. However, the alternatives vary in the distributional effects of these impacts since, absent additional regulation not currently

proposed, fishing would occur from the start of the fishing year until such time as the quota is reached, with the quota closure occurring at the end of the fishing year. Specification of the fishing year simultaneously identifies both the start and the end of the fishing year. Different start dates, therefore, establish different end months. Absent pre-specified closures, the likelihood of closure in a specific month varies with its proximity to the end of the fishing year. Thus, to the degree that any closure is likely, March has the highest probability of closure since it is the last month of the current fishing year. Establishing March as the first month of the fishing year (Preferred Alternative 2) eliminates the possibility of a March quota-closure, absent a 0-pound TAC, but increases the probability of closure in February and preceding months. Similarly, while Alternative 3 would likely also eliminate the possibility of a March closure, again absent an extraordinarily restrictive TAC, it would increase the probability of a December (and preceding months) closure. While this is a simple and obvious outcome, it is important to acknowledge since the behavior/performance of the fishery and the fishing patterns of individual fishing operations vary from month to month, as determined by the migratory patterns of the species, regulations/fishing conditions in other fisheries, and the operational preferences of individual fishermen and, thus, a closure in one month would be expected to impact both a different group of participants as well as, potentially, the same participants to different degrees than a closure in a different month. This is due to the fact that the fishing activity occurs in different areas during different months, and the intensity of action (for instance, trip frequency and harvest rates of individual participants) varies within the same area during different months.

A closure in March or preceding months in the Atlantic migratory group king mackerel fishery would primarily affect fishermen fishing or landing their catch in North Carolina since March harvests (as well as November through February harvests) of Atlantic group king mackerel are landed primarily in North Carolina (Figures 13-14). Farther south, in Volusia through Miami-Dade and Monroe Counties, Florida, fishermen land Gulf group king mackerel during this period and Atlantic migratory group king mackerel in April through October. For the Atlantic Spanish mackerel fishery, a March or earlier closure would primarily affect fishermen on the Florida east coast (Figures 15 and 16). During November through March, Atlantic group Spanish mackerel are landed primarily on the Florida east coast, and very little is landed farther north in New York through Georgia.

The information presented in Tables 8 through 10 (Atlantic migratory group king mackerel) and Tables 11 through 13 (Atlantic migratory group Spanish mackerel) allows examination of potential differences in the fishery performance of vessels operating in different areas or time periods. These data are derived from the NOAA Fisheries Southeast Coastal Fisheries logbook data for the fishing years 1998/99 through 2002/03. The comparison presented for the king mackerel fishery is between all vessels with recorded landings of Atlantic migratory group king mackerel during the entire fishing year (Table 8), all vessels with recorded landings of Atlantic migratory group king mackerel in North Carolina during the entire fishing year (Table 9), and all vessels with recorded landings of Atlantic migratory group king mackerel in North Carolina during March (Table 10). For Spanish mackerel, the respective comparisons substitute the Florida east coast for North Carolina, since this is the primary state of landing for Atlantic migratory group Spanish mackerel during this period.

Between the 1998/99 and 2002/03 fishing years, the number of vessels with landings of Atlantic group king mackerel declined from 879 to 700 and total Atlantic group king mackerel landings declined from 2.1 MP to 1.4 MP (Table 8). Median landings of Atlantic migratory group king mackerel per vessel ranged from 655 pounds (2002/03) to 772 pounds (2001/02) and accounted for 18% to 22% of the estimated total annual gross revenue per vessel (all species harvested), which ranged from $10,000 to $11,000. For vessels that landed this species in North Carolina (over the entire year), while declines occurred in the both number of vessels and their landings (Figure 13 and Table 9), the median harvests of Atlantic migratory group king mackerel were higher, 913 pounds to 1,157 pounds, and accounted for 27% to 34% of estimated total annual revenue, which ranged

from $9,900 to $14,400. Thus, fewer vessels landed Atlantic migratory group king mackerel in North Carolina than landed the species in the entire South Atlantic, as would be expected, but median king mackerel landings were higher, and accounted for a larger proportion of annual revenue.

Vessels that landed Atlantic migratory group king mackerel in North Carolina in March (Table 10), the last month of the fishing year, numbered 46 to 73 per year, with no apparent trend in direction of the total. The median landings in March were 404 pounds to 1,043 pounds per vessel, and their estimated average annual gross revenue was much higher than that of vessels that landed the species over the entire year, $27,400 to $33,000, except in 2002/2003 ($16,129). Comparing the 5-year total gross revenue for the two sets of vessels with landings in North Carolina, king mackerel accounted for a higher percentage of the 5-year total for the smaller set of vessels that landed king mackerel in March (data only partially shown in the tables; $3.17 million out of $10.67 million, or 29.7% vs. $6.237 million out of $27.88 million, or 22.4%). Thus, participants landing king mackerel in North Carolina in March have a different production profile than those landing in North Carolina throughout the year.

For the Atlantic migratory group Spanish mackerel fishery, between 1998/99 and 2002/03, the number of vessels with recorded landings of this species ranged from 345 to 379 per year, and total landings of this fish ranged from 1.4 to 2.4 MP (Table 11). Median landings per vessel ranged from 241 pounds to 335 pounds and accounted for 3% to 4% of the estimated annual median gross revenue per vessel of $9,400 to $11,120. Most of the landings of Atlantic migratory group Spanish mackerel occur on the Florida east coast, where 264 to 283 vessels landed 1.2 to 2.2 MP of this fish (Figure 15 and Table 12). The median landings of Atlantic migratory group Spanish mackerel per vessel were higher on the Florida east coast than for the set of all vessels that landed this fish, 305 pounds to 453 pounds, and this species accounted for slightly more of the annual revenue, 3% to 5%, among east Florida fishermen (Tables 11 and 12). Median annual gross revenue, $9,300 to $11,340, was close to that for all vessels that landed Atlantic migratory group Spanish mackerel.

Vessels that landed Atlantic migratory group Spanish mackerel on the Florida east coast in March, the last month of the fishing year, numbered 80 to 109 per year, and their landings during this month totaled 84,000 pounds to 172,000 pounds (Table 13). The median landings in March, 79 pounds to 638 pounds per vessel, were close to the annual average landings for all vessels that landed Spanish mackerel on the Florida east coast during the whole fishing year, although the estimated median annual gross revenue was higher, $13,421 to $16,530 (Tables 12 and 13). Spanish mackerel accounted for more of the gross revenue for the set of vessels with landings in March on the Florida east coast (data only partially shown in the tables; $2.88 million out of $10.44 million, or 28%) than the set of all vessels with landings on the Florida east coast for the whole year (data only partially shown in the tables; $4.48 million out of $25.36 million or 18%).

The impacts of a closure are exacerbated if other fishing opportunities are limited. Although many participants in the king and Spanish mackerel fisheries also participate in other fisheries over the course of the year, notably the snapper-grouper fishery, opportunities to harvest specific snapper-grouper species are temporally limited due to existing closures in these fisheries. For example, the following spawning or other seasonal closures occur in the South Atlantic EEZ for some period of time during January through April (50 CFR § 622.36 [b]):

> Greater amberjack, April, possession is limited to one fish per person per day or one fish per person per trip, whichever is more restrictive for vessels with commercial or for-hire (charter or headboat) permits for snapper-grouper. Under this limit, sale is not allowed.

Mutton snapper, May and June, possession is limited to 10 fish per person per day or 10 fish per person per trip, whichever is more restrictive for vessels with commercial permits for snapper-grouper. Under this limit, sale is not allowed.

Wreckfish, January 15 through April 15, no possession, harvest or sale.

Black grouper and gag, March and April, possession is limited to two of these fish combined per person per day or per person per trip, whichever is more restrictive for vessels with commercial or for-hire (charter or headboat) permits for snapper-grouper. Under this limit, sale is not allowed.

Red porgy, January through April, harvest or possession is limited to one fish per person per day or one fish per person per trip, whichever is more restrictive for vessels with commercial or for-hire (charter or headboat) permits for snapper-grouper. Under this limit, sale is not allowed.

In addition to having potential different distributional impacts, the alternatives vary in their capacity to generate the intangible and unquantifiable benefits of consistency. These benefits relate to the simplification of monitoring, assessment activities, and the reduction of regulatory confusion among participants. Deviation from a standard or norm adds confusion and increases the time required to conduct necessary analyses and, to a degree, may be expected to increase the error rate of assessment. Fishing decisions that may be triggered by knowledge of the fishing year are simplified if the specification is stable and consistent. The current specification for fishing year for most fisheries is January 1 through December 31 and, therefore, represents the standard for consistency. Alternative 3 is identical to this standard and would, therefore, be the most consistent with the standard and would generate the most of these unquantifiable benefits, though the initial change may generate some temporary confusion. Alternative 1, the no-action status quo alternative, would maintain stability but would be expected to continue to produce the negative effects of deviation from the standard. Preferred Alternative 2 would change the current specification, but not mirror the standard and would be expected to increase the negative effects of the status quo since it would establish a new specification that would be simultaneously inconsistent with the historic specification and the specification used for most other fisheries.

Summary: The specification of the fishing year is largely an administrative action that affects the accounting of fishing harvests and activity. If this accounting does not affect the timing (when participants fish) or intensity (how much the participants fish), then, by extension, the accounting would not affect who the participants are. Under current TACs and historical harvest patterns in the Atlantic migratory group king and Spanish mackerel fisheries, no quota closures or other participation restraints are expected. Therefore, all participants in the fishery would be expected to be able to fish as they currently do for these species. Therefore, no adverse social or economic impacts would be expected from any of the alternatives.

Specification of the fishing year does, however, have the potential to induce distributional effects as it affects which months a closure, should such be necessary, would occur, thereby determining which subset of fishery participants become impacted. For the Atlantic migratory groups of king and Spanish mackerel, a year-end closure in March would affect king mackerel fishermen primarily in North Carolina, and Spanish mackerel fishermen primarily on the Florida east coast. These participants have different production profiles than all participants in these respective fisheries combined. Among vessels that land Atlantic migratory group king mackerel, the set of vessels that land this species in March in North Carolina tend to have much higher average annual gross revenue than all vessels that land the species in North Carolina ($27,000 to $33,000 vs. $10,000 to $14,000) and derive a larger portion of their gross revenue comes from king mackerel (30% vs. 22%). Among the vessels that land Atlantic migratory group Spanish mackerel, the set of vessels that land the species in March on the Florida east coast, where the majority of landings occur in this fishery, tend

to have higher average annual gross revenue than all vessels that land the species in Florida ($13,000 to $16,500 vs. $9,000 to $11,000), and derive more of their gross revenue comes from this species (28% vs. 18%).

While changing the fishing year may create some initial confusion and difficulties until both participants and management become accustomed to the change, having a fishing year that is consistent with that of most other fisheries would be expected to generate the intangible and unquantifiable benefits of consistency. These benefits relate to the simplification of monitoring and assessment activities that occurs when different fisheries share the same time frame of focus. Deviation from a standard or norm adds confusion and increases the time required to conduct necessary analyses and, to a degree, would be expected to increase the error rate of assessment. The current specification for fishing year for most fisheries is January 1 through December 31 and, therefore, represents the standard for consistency. Alternative 3 would be the most consistent with this standard, since it is identical to the standard and, therefore, would generate the most of these unquantifiable benefits. Alternative 1, the no-action status quo alternative, would be expected to generate no benefits of this type but would, rather, be expected to continue to produce the negative effects of deviation from the standard. Preferred Alternative 2 would change the current specification, but not mirror the standard, and would be expected to increase the negative effects of the status quo since it would establish a new specification that would be simultaneously inconsistent with the historic specification and the specification used for most other fisheries.

Although intangible and unquantifiable, the benefits of stability and consistency in the fishing year, and the costs of deviation from such, are real effects. However, they are likely secondary to the economic costs associated with a closure, and the benefits associated with avoidance or minimization of the costs of a closure. Although closure of either mackerel fisheries are not expected in the foreseeable future, the potential impacts of a closure in March are potentially sufficiently severe to justify guarantee that it does not occur. Thus, although Alternative 3 may produce greater benefits from a regulatory consistency perspective, Preferred Alternative 2 best guarantees that the March mackerel fisheries remain open, thus avoiding of the costs associated with a closure during this period.

4.6 Public and Private Costs of Regulations

The preparation, implementation, enforcement, and monitoring of this or any Federal action involves the expenditure of public and private resources which can be expressed as costs associated with the regulations. Costs associated with this amendment include:

Council costs of document preparation, meetings, public hearings, and information dissemination	$100,000
NOAA Fisheries administrative costs of document preparation, meetings and review	$100,000
Annual law enforcement costs	0
Annual public burden associated with permits and application requirements	$41,000
TOTAL	$241,000

Regardless of the alternatives selected, the fishery will continue to operate and a permit system will remain in place. Law enforcement currently monitors regulatory compliance in this fishery under

routine operations and does not allocate specific budgetary outlays to this fishery, nor would the proposed actions require modification or increases in current enforcement practices. Thus, no law enforcement costs are attributable to the proposed action. Similarly, the preferred alternatives would continue the current permitting and transfer system (except under Alternative 1 whereby transfer would be necessary) and, thereby, not impose any additional costs on either the public or NOAA Fisheries. The current permit cost is $50 and the permit is automatically renewed the second year at no additional cost. Thus, the average annual cost to obtain a permit is assumed to be $25 ($50 per year/2 years). Using the estimated number of valid permits as of July 15, 2003, 1,740 permits, the public cost of permitting equaled $43,500 (1,740*$25). Additionally, it is estimated to require 20 minutes to complete and mail the application, or 10 minutes per year, for a total of 290 hours per year([1,740*10]/60). Assuming $10 as the opportunity cost of time, the value of this time is estimated to be to $2,900. Assuming $1 for postage expenses per application, the application process is estimated to cost an additional $870 per year ([1,740/2]*$1). The total annual burden, therefore, sums to approximately $47,000. Additional public burden occurs through the transfer process, for which an additional $50 application fee would be required (a permit could be renewed and transferred in the same year, for which the application fee would be required each time) and an estimated additional 20 minutes of time required, as well as postage burden. Estimates of the average number of transfers per year are not available, however, so no estimate of this additional cost is available. The total number of valid permits has declined each year since initiation of the limit on access, at an average annual rate of 4.5% from 1998 to 2003. Assuming the same rate of decline continues through 2010, only an estimated 1,260 permits would be issued in 2010. The appropriate public costs of a permit program of this size is approximately $34,000. The average cost of the permitting program using the 2003 and 2010 figures is estimated at $41,000 per year.

4.7 Summary of Economic Impacts

Under a continued limit on access for the commercial king mackerel fishery (Alternatives 2, 3 or Preferred Alternative 4), assuming continued contraction of the number of permitted vessels at historic levels (4.5% per year), the number of permitted vessels is expected to drop from 1,740 vessels in 2003 to 1,260 vessels by 2010 (Alternative 2), to 1,001 vessels by 2015 (Alternative 3), and to an unknown number of vessels under Preferred Alternative 4 (fleet stabilization would be expected at some unknown time and level). Assuming that reduction in the number of vessels that land king mackerel follows historic patterns (2.2% per year), the respective estimates of vessel participation are 814 vessels (2010) and 728 vessels (2015). A decrease in the number of permitted vessels landing king mackerel would lead to an expected increase in producer surplus from that in 2003, an estimated $142,650 to $380,400. Assuming the increase in producer surplus mirrors that of fleet contraction (2.2%), the resultant estimates of producer surplus are approximately $166,000 to $443,000 by 2010, and $185,000 to $494,000 by 2015.

A return to open access conditions (Alternative 1) would be expected to lead to an increase in the number of vessels landing king mackerel, assuming the current decline is due to an imperfectly operating permit transfer market. An increase in the number of vessels landing king mackerel would be expected to lead to a decrease in current producer surplus from that in 2003, an estimated $142,650 to $380,400, potentially to the point of total dissipation of all producer surplus.

The specification of the fishing year for the Atlantic migratory group king and Spanish mackerel fisheries, given that there is no expectation that either fishery is likely to be subject to closure in near or foreseeable future, is essentially an administrative action and is, therefore, not expected to have any adverse impacts on the fishery. However, it may potentially have distributional effects to the extent that it identifies the final months of the fishing year and may, as a result, have differential impacts on fishery participants in different fishing areas.

4.8 Determination of Significant Regulatory Action

Pursuant to E.O. 12866, a regulation is considered a "significant regulatory action" if it: (1) 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 or communities; (2) creates a serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) materially alters the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or (4) raises novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in E.O. 12866.

The total annual ex-vessel value of commercial harvests of king and Spanish mackerel is less than $10 million. Although allowing the king mackerel fishery to return to open access conditions may result in the elimination of all current producer surplus, estimated to range from $142,650 to $380,400, the $100 million threshold will clearly not be met. Although this would be an adverse outcome, the elimination of these surpluses would not jeopardize the overall operation of the fishery, which would remain open with historic allowable harvest levels. Although participation in the fishery has declined in recent years, such decline has been due to overall economic conditions and the realities of this as a business activity and not due to the requirements of the limited access program that has been in place. The alternatives would either continue the current operating conditions in the fishery for different periods of time (Action 1, Alternatives 2, 3 and Preferred Alternative 4) or place fewer restrictions on participation in the fishery (Action 1, Alternative 1). Specification of the fishing year may potentially have distributional effects to the extent that it identifies the final months of the fishing year and may, as a result, have differential impacts on fishery participants in different fishing areas. More extensive discussion of this issue is provided in Section 4.5. However, since closure of the king or Spanish mackerel fisheries is not expected in the near or foreseeable future due to historic and recent harvest levels, Action 2 is largely an administrative action with no expected adverse impacts. The actions would, therefore not be expected to substantially impact the economy, a sector of the economy, productivity, competition or jobs.

Measures in this action do not adversely affect the environment, public health or safety, or state, local, or tribal governments or communities, nor do they interfere or create inconsistency with any action of another agency, including state fishing agencies. No effects on the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof have been identified. The actions in the proposed Amendment represent normal management options or practices and, therefore, do not raise novel legal or policy issues.

Since the proposed rule will not meet any of the conditions listed above, it is determined that the proposed rule, if implemented, would not constitute a "significant regulatory action."

5.0 REGULATORY FLEXIBILITY ACT ANALYSIS

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

With certain exceptions, the RFA requires agencies to conduct a regulatory flexibility analysis for each proposed rule. The regulatory flexibility analysis is designed to assess the impacts various regulatory alternatives would have on small entities, including small businesses, and to determine ways to minimize those impacts. In addition to analyses conducted for the RIR, the regulatory flexibility analysis provides: (1) a statement of the reasons why action by the agency is being considered; (2) a succinct statement of the objectives of, and legal basis for the proposed rule; (3) a description and, where feasible, an estimate of the number of small entities to which the proposed rule will apply; (4) a description of the projected reporting, record-keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities that will be subject to the requirements of the report or record; (5) an identification, to the extent practical, of all relevant Federal rules which may duplicate, overlap, or conflict with the proposed rule; and (6) a description of any significant alternatives to the proposed rule which accomplish the stated objectives of applicable statutes and which minimize any significant economic impact of the proposed rule on small entities.

Statement of need for, objectives of, and legal basis for the rule: The purpose and need, issues, problems, and objectives of the proposed rule are presented in Section 1.0 and are incorporated herein by reference. In summary, the purpose of the proposed rule is to provide stability in the Southeast commercial king mackerel fishery as part of the overall strategy to achieve optimum yield and maximize the overall benefits to the Nation provided by the fishery and insure that the Atlantic group king mackerel fishery is open in March. The Magnuson-Stevens Fishery Conservation Management Act, as amended, provides the statutory basis for the proposed rule.

Identification of all relevant Federal rules which may duplicate, overlap or conflict with the proposed rule: No duplicative, overlapping, or conflicting Federal rules have been identified.

Description and estimate of the number of small entities to which the proposed rule will apply: An estimated 1,740 vessels were permitted to fish for commercial king mackerel in 2003, down from 2,172 in 1998. Approximately half of the vessels with permits had logbook-reported landings, 1,066 in 1998 and 951 in 2003 (Table 1). The median annual gross revenue from all logbook-reported sales of finfish by these vessels ranged from approximately $11,000 to $12,000 during this period. The median percentage of gross revenues attributable to king mackerel ranged from 22% to 33%. Although participation in the fishery has declined since 1998, this decline has been voluntary and presumed attributable to economic conditions in the fishery and fishing in general and not due to regulatory requirements. Although a limited access program (as a moratorium) has been in place in this fishery since 1998, transfer of permits is not restricted, such that those seeking to enter the fishery can purchase a permit from those seeking to exit the fishery. Such transfers in fact occur, and 309 of the 1,740 permits in 2003 represented permits that had been transferred at some point since 1998. Thus, entry into the fishery occurs, however total participation, in terms of both

the number of permits and the number of permitted vessels that land fish, has consistently declined since 1998, indicating that entry is not limited by a lack of available permits.

The proposed rule will affect all current participants in the fishery. The rule will similarly affect all entities interested in entering the fishery. No estimate of this number can be provided, though it is not expected to be substantial due to the decline in total participation in the fishery even though permit transfer and entry opportunities are available.

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: The proposed rule would not change current reporting, record-keeping and other compliance requirements under the FMP. These requirements include qualification criteria for the commercial vessel permit and logbook landing reports. All of the information elements required for these processes are standard elements essential to the successful operation of a fishing business and should, therefore, already be collected and maintained as standard operating practice by the business. The requirements do not require professional skills; therefore, they are not deemed to be onerous.

Substantial Number of Small Entities Criterion: One general class of small business entities would be directly affected by the final rule, commercial fishing vessels. The Small Business Administration defines a small business that engages in commercial fishing as a firm that is independently owned and operated, is not dominant in its field of operation, and has annual receipts up to $3.5 million per year. Based on the revenue profiles provided above, all commercial entities operating in the king mackerel fisheries are considered small entities.

The proposed rule will apply to all entities that operate in the commercial king mackerel fishery and those entities interested in or seeking to enter the fishery. The proposed rule will, therefore, affect a substantial number of small entities.

Significant Economic Impact Criterion: The outcome of "significant economic impact" can be ascertained by examining two issues: disproportionality and profitability.

Disproportionality: Do the regulations place a substantial number of small entities at a significant competitive disadvantage to large entities?

All the vessel operations affected by the proposed rule are considered small entities so the issue of disproportionality does not arise in the present case.

Profitability: Do the regulations significantly reduce profit for a substantial number of small entities?

Three alternatives in the proposed rule would continue to limit access in the fishery. Continuation of this system would be expected to increase profitability for the entities remaining in the fishery if participation continues to decline, as has occurred since 1998. Should the decline in participation cease, profits would be expected to continue at current levels. Should the fishery revert to open access, participation would be expected to increase and average profit per participant would be expected to decline, possibly to the point of elimination of all profits from this fishery. The specification of the fishing year is essentially an administrative action, particularly since no closures of either the Atlantic migratory group king or Spanish mackerel fisheries are expected, and the alternatives are not expected to have any effect on profits of fishery participants.

The alternatives would continue the requirement to have a vessel permit in order to participate in the commercial king mackerel fishery. The cost of the permit is $50 and renewal is required every

other year (the permit is automatically renewed the second year). Since this is a current requirement, there would be no additional impacts on participant profits as a result of this requirement.

Description of Significant Alternatives: Four alternatives are considered for Action 1, which addresses the extension or expiration of the current limit on access in the commercial king mackerel fishery. Alternative 1 would allow the fishery to revert to open access. Open access conditions would be expected to lead to an increase in the number of permitted vessels (1,740 vessels in 2003), or, at the least, slow the rate of decline in participation that has occurred, and would be expected to continue under limited access (Alternatives 2, 3 or Preferred Alternative 4). Any increase in the number of vessels landing king mackerel would lead to an expected decrease in producer surplus from that in 2003, estimated at $142,650 to $380,400.

Alternatives 2 and 3 would continue the current moratorium on issuing new king mackerel permits for 5 years or 10 years, respectively. Preferred Alternative 4 would establish an indefinite, limited access system. Thus, the fishery would continue as a limited access fishery under each alternative. It is not possible to distinguish Alternatives 2, 3 and Preferred Alternative 4 empirically in terms of fishery behavior using available data. However, it is not unreasonable to assume that fishermen believe that regardless of the duration of the program specified in the alternative, a precedent for indefinite use of private market mechanisms has been established, given the history of successfully functioning private markets for vessel permits. Thus, the outcomes of Alternatives 2, 3 and Preferred Alternative 4 are expected to be functionally equivalent. As stated previously, under the current program to limit access, the fishery is estimated to have generated $142,650 to $380,400 in producer surplus. Assuming the increase in producer surplus mirrors that of fleet contraction exhibited from 1998 through 2003 (2.2%), the resultant estimates of producer surplus are approximately $166,000 to $443,000 by 2010, and $185,000 to $494,000 by 2015. Alternatives 2, 3 and Preferred Alternative 4 would also continue to provide for market-based compensation for vessels that exit the fishery and the permit market would continue to provide an economically rational basis for regulating the entry of vessels into the commercial king mackerel fishery and allocating access to fishery resources among competing users in the commercial fisheries.

It should be noted that although Preferred Alternative 4 would imply a longer duration of the system than Alternatives 2 and 3, the system established under any of the alternatives could be suspended at any time through appropriate regulatory action. Establishing an indefinite duration, however, eliminates the need for action to continue the system at specific time intervals, thereby eliminating the associated costs of such action. The administrative and development cost of the current action is estimated to be $200,000. Further, when compared with Alternatives 2 and 3, Preferred Alternative 4 may better address the Councils' purpose of providing stability in the commercial and recreational fisheries for king mackerel, preventing speculative entry into the commercial fisheries, and achieving OY, as specified in the M-SFCMA. Alternative 1 would not achieve the Councils' objectives.

Three alternatives are considered relative to Action 2 which deals with the specification of the fishing year for Atlantic migratory group king and Spanish mackerel. Alternative 1 would maintain the current fishing year, April 1 through March 31, Preferred Alternative 2 would establish a March 1 through February 29 fishing year, and Alternative 3 would establish a January 1 through December 31 fishing year. The Council's objective is to insure that the Atlantic group mackerel fisheries are open in March, since other fishing opportunities are limited during this month. Both Preferred Alternative 2 and Alternative 3 would reduce the potential of a March closure, however, only Preferred Alternative 2 would guarantee such, absent a 0-pound quota. However, no closures are expected in either of these fisheries. Hence, specification of the fishing year is largely an administrative action, and would not be expected to adversely affect fishery participants in any way.

6.0 AFFECTED ENVIRONMENT

The actions reviewed in this amendment are directed toward king and Spanish mackerel and the participants in these fisheries in the Gulf of Mexico and Atlantic. A detailed description of the physical, biological/ecological, socioeconomic, and administrative environments related to the mackerel fisheries is provided in the CMP FMP (as amended) and in the Final EIS for the GMFMC's Generic Essential Fish Habitat (EFH) Amendment. That information is incorporated here by reference and summarized below.

6.1 Physical and Biological Environment

The CMP FMP (with EIS), various amendments, and the GMFMC's Generic EFH Amendment provide a review of the biology and habitat of king and Spanish mackerel, and they are incorporated here by reference. A summary of the biological environment of Gulf and Atlantic groups of king and Spanish mackerel are provided as follows:

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 m depths. Adults are known to spawn in areas of low turbidity, with salinity and temperatures of approximately 30 parts per thousand (ppt) and 27°C, respectively. There are major spawning areas are off Louisiana and Texas in the Gulf (McEachran and Finucane 1979); and off the Carolinas, Cape Canaveral, and Miami in the western Atlantic (Wollam 1970; Schekter 1971; Mayo 1973). Spawning occurs generally from May through October with peak spawning in September (McEachran and Finucane 1979). Eggs and larvae are pelagic over depths of 30 to 180 m, and larvae may descend to mid depths during the day. Juveniles are generally found closer to shore at inshore to mid shelf depths (to < 9 m) and occasionally in estuaries. Adults are migratory, and the CMP FMP recognizes two migratory groups (Gulf and Atlantic) that are shown in Figure 1 herein. 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). King mackerel primarily eat other fish species (herring, sardines, and menhaden) and to a lesser extent squid at all life stages (larvae to adult). In turn they are eaten primarily by larger pelagic predators, e.g., sharks (GMFMC/SAFMC 1985).

Spanish Mackerel - Spanish mackerel is also a pelagic species, occurring over depths to 75 m 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 in neritic waters and along coastal areas. They will inhabit estuarine areas, especially the higher salinity areas, during seasonal migrations, but are considered rare and infrequent in many Gulf estuaries. Spawning occurs along the inner continental shelf from April to September (Powell 1975). Eggs and larvae occur most frequently offshore over the inner continental shelf at temperatures between 20°C 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 m, but are most common in < 50 m. 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). Like Gulf group king mackerel, Spanish mackerel primarily eat other fish species (herring, sardines, and menhaden) and to a lesser extent crustaceans and squid

at all life stages (larvae to adult). They are eaten primarily by larger pelagic predators, e.g., sharks, tunas, and bottlenose dolphin.

6.2 Social and Economic Environment

6.2.1 Economic Environment

Section 5.4 contains a detailed description of the economic environment potentially affected by the measures in this amendment and is incorporated herein by reference. In summary, this amendment will affect the commercial king mackerel fishery and the commercial fishery for Atlantic migratory group Spanish mackerel. Approximately 1,740 vessels were permitted to fish in the king mackerel fishery in 2003, of which only 951 recorded king mackerel landings in the mandatory logbook reporting system. These 951 vessels harvested approximately 4.5 MP of king mackerel in 2003, valued at $6.19 million in gross revenues, and received $9.57 million in gross revenues from sales of all logbook reported landings on the trips that harvested king mackerel. The fishery is managed according to migratory group. Localized or regional quota-based closures occur regularly in the Gulf group fishery, and the fishery frequently exceeded the total Gulf group quota from the mid-1980's through the late 1990's. The total Gulf group quota has not been exceeded, however, since the 1999/2000 fishing season. Gulf group harvests are dominated by landings in Florida. The Atlantic group quota has only been exceeded three times since 1987, with landings typically falling short of the quota. This fishery is also dominated by Florida landings.

The Atlantic migratory group Spanish mackerel fishery was prosecuted by 364 vessels in the 2002/2003 fishing year, as recorded by the mandatory logbook reporting system. These vessels recorded 3,536 trips on which Spanish mackerel were harvested, for a total of 1.7 MP of Spanish mackerel valued at $1.06 million in gross revenues. Total gross revenues from all logbook reported finfish on these trips was $7.01 million. The Atlantic migratory group Spanish mackerel fishery is also quota managed, but total harvests have not exceeded the quota since the 1994/1995 fishing year. This is primarily a Florida fishery.

6.2.2 Social Environment

There is very little information on fishermen, fishing-dependent businesses, or communities that depend on the king and Spanish mackerel fisheries. In order to understand the impact that any new rules and regulations will have on participants in the king and Spanish mackerel fisheries, in-depth community profiles need to be developed that will aid in the description of communities, both present and historical, involved in this fishery. Social science research is currently being conducted by NMFS in communities in the Gulf of Mexico and South Atlantic. Until this research is completed, and in-depth community profiles are developed for some sample communities, it is not possible to fully describe the possible impacts of any change in federal fishing regulations in the mackerel fishery.

The Coastal Migratory Pelagics “Mackerel” fishery has been managed since the FMP was approved in 1982 with the regulations becoming effective in February 1983. In 1998, Amendment 8 was implemented which established a moratorium on commercial king mackerel permits until no later than October 15, 2000. At that time, the king mackerel Gulf migratory group was considered overfished and undergoing overfishing, thus capping participation was seen as the least impacting management measure when combined with quotas, bag limits, size limits, etc. to allow the stock to recover. Since 1985, the king mackerel fishery has been managed by a TAC that is adjusted seasonally based on the stock assessments. By having a moratorium on the number of permits and being managed by a TAC, the fishery has stabilized somewhat.

Many federal fisheries are now managed by TACs, limited entries, limited seasons, size limitations, or other regulations that often make it difficult for people to enter into commercial fishing or to expand into other fisheries. Most fishermen who participate in the mackerel fishery also participate in other fisheries. Even if mackerel fishing only accounts for a portion of the income earned by a fisherman, it is an important part and may mean the difference in someone being able to continue to fish, and the necessity to seek other types of employment. If the mackerel fishery were to experience further reductions in the catch, there could be ramifications for fishermen, fish processors, marinas, and other fishing-related businesses which draw part of their income from the mackerel fishery. If there are changes made to the current regulations for the mackerel fishery, it is assumed that the regulations would have the most impact in communities where the most mackerel are landed, the most income from mackerel earned, the most boats are permitted for mackerel, and where the fishermen who fish for mackerel live.

In order to identify communities that are at least in part dependent on the king and Spanish mackerel fisheries, landings data for both the Gulf and South Atlantic were used (Tables 2 and 3) along with permit data that show permits by homeport and permittees by address. By comparing all of these data, it is possible to determine which counties may be most impacted by changes in regulations that may affect mackerel-dependent fishermen, fishing-dependent businesses, and communities.

For 2000 and 2003, the most king mackerel by pounds and by ex-vessel price was landed in Monroe County, Florida (Table 14). Within Monroe County, Key West had the most number of permits by homeport and by address as of June 8th, 2004. Demographics of Monroe County and of Key West, based on the U.S. 2000 Census, are listed in Table 15 and Table 16.

Dare County, North Carolina had the second highest landings by pounds, but not by ex-vessel price, in 2000. Dare County dropped from 550,625 pounds with an ex-vessel value of $1,994,858 in 2000 to 205,973 pounds, with an ex-vessel value of $1,139,808 in 2003. Lafourche Parish, Louisiana had the third highest landings by pounds, but not for ex-vessel value, for 2000. They dropped from 472,969 pounds in 2000, at an ex-vessel value of $4,071,426, in 2000 to 290,070 pounds, with an ex-vessel value of $2,312,548 in 2003 (Table 14). Tables 17 and 18 show the demographics of Dare County and Lafourche Parish, respectively.

According to the 2000 census, the three counties highlighted below employed a total of 5,353 in the agriculture, forestry, fishing, and hunting industry. The census data do not further disaggregate fishing from the other industries in that category so it is not possible to tell from census data what percentage of that category are in the fishing industry. Of the three counties, Dare County, North Carolina had the fewest people in the agriculture, forestry, fishing, and hunting industry in the 2000 census with 538 or 3.4% people listed. La Fourche Parish, Louisiana had the highest number at 3,066 or 8.2% in the agriculture, forestry, fishing, and hunting industry. Monroe County had 1,430 (3.5%) people in the same category.

The demographics of each community helps the reader to understand the level of education obtained by community members, the price of housing, and the types of employment available in the community. If fishing regulations change where people can no longer make a living at fishing, the other opportunities that exist in the community will be based on what jobs are available, level of education required, training and language skills. Until further research is done in these communities, it is not possible to fully describe the dependency on fishing for these communities.

As stated above, Monroe County had the highest amount of landings in 2000 and 2003. Therefore, the demographics of Monroe County become important. Since there is little farming and forestry in Monroe County, it is assumed that the 1,332 people who listed their occupation under the fishing, farming, and forestry category are in fishing. Key West and Stock Island are being shown as sample

communities to help us understand the community structure based on types of occupations, level of education, and price of housing, amongst other factors.

The history of Key West is much like the rest of the Keys, sparsely populated until 1821. Its natural deep water port was the deepest port between New Orleans and Norfolk, Virginia. Key West quickly became an economic center, and rapidly became Florida's largest populated city. Starting in 1825, residents of Key West made much of their money harvesting goods from wrecked ships which crashed on the reefs surrounding the island. In 1831 the first of many cigar factories opened and many Cubans migrated to Key West to work in the factories.

The first venture into commercial fishing, by non-Native Americans, was in the 1840s when people started harvesting sponges around Key West. The sponge industry brought in more people, money and resources related to the harvest of sponges. By the 1890s, the sponge business in the Keys was thriving. Tourism had gotten off to a good start due to the completion of the Flagler railroad which went all the way through the Keys to Key West, and the number of ships that sailed in and out of the port at Key West. But during World War I , the depression, and World War II the Keys lost some of the prominence. People no longer had time or money for leisure travel. (See http://www.keyshistory.org/keywest.html)

The U.S. Navy made their bases in Key West which helped the economy and provided jobs in the early 1900s. In 1949 Key West pink shrimp were found in the Marquesas and Tortugas areas and a shrimp boom started. Shrimp boats numbered around 500 in the winters which was the best season for shrimp. The 1960 census showed that Key West's population had expanded to 33,956.
Fishing has managed to survive in Key West as tourism has continued to grow since the mid-1900s. Today, tourism brings in the most money for the economy of Key West. Although many of the commercial fishing permittees in Monroe County list Key West as their homeport for the address, many of the crew in the area actually live in Stock Island. Based on the permits data, which shows 143 king mackerel permits by address, it may be that most of the vessel owners live in Key West, whereas the majority of the crew resides in Stock Island. Stock Island has fish houses and commercial fishing docks where boats unload their catches. Stock Island is a less expensive community to live in than Key West, which may attract crew who typically don't make as much as the boat owners.

As of June 2004, there were 143 commercial vessels with king mackerel permits in Key West according to the mailing address listed on the permit registration. There are 168 vessels that have king mackerel permits and list their home port as Key West as of June 2004. If there are changes made in the regulations that govern the king mackerel fishery and the amount earned per boat is less than it is now, there could be major impacts for fishermen, fishing-dependent businesses, and communities such as Key West which list a large number of vessels with king mackerel permits.

Table 19 shows the number of commercial fishing permits for Key West from 1998 to 2001. The number of commercial fishing permits for Key West can be used as an indicator of the importance of fishing to the community Key West as well as Stock Island.

The census data do not adequately describe how many people in Key West or Stock Island may be dependent on fishing and/or fishing resources to provide all or part of their income. These communities are being used as a sample case for understanding communities involved in fishing. People who are dependent on fishing or fishing related industries may list their occupation under other categories on the census form. According to the 2000 census, there are 319 (2.3%) people in Key West listed in the industry category for agriculture, forestry, fishing, and hunting. In Stock Island, there are 177 (8.1%) people who are listed in the same category (Table 20). One can almost safely assume that most of those persons are employed in fisheries related businesses since there is no agriculture or forestry production in Key West or Stock Island.

6.3 Administrative Environment

6.3.1 Federal Fishery Management

Federal fishery management is conducted under the authority of the M-SFCMA (16 U.S.C. 1801 et seq.), originally enacted in 1976 as the Fishery Conservation and Management Act. The M-SFCMA 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 under the CMP FMP is divided between the U.S. Secretary of Commerce (Secretary) and jointly, the GMFMC and SAFMC that represent the expertise and interests of constituent states, as well as the Mid-Atlantic Fishery Management Council in the Atlantic. The Councils developed the original CMP FMP and are responsible for monitoring and revising it as necessary. The Secretary is responsible for promulgating regulations to implement proposed management measures based on amendments submitted by the Councils after ensuring that management measures are consistent with the M-SFCMA, and with other applicable laws summarized in Section 9. In most cases, the Secretary has delegated this authority to NOAA Fisheries.

The Councils are responsible for management of CMP fishery resources in federal waters. These waters extend to 200 nautical miles offshore from the 9-mile seaward boundary off the west coast of Florida and Texas, and the 3-mile seaward boundary of the states of Alabama, Mississippi, and Louisiana in the Gulf. Additionally, the SAFMC manages king and Spanish mackerel resources in federal waters off the east coast of Florida, and off the states of Georgia, South Carolina, North Carolina, as well as Virginia, Maryland, Delaware, Pennsylvania, New Jersey, and New York with the Mid-Atlantic Council from the three-mile seaward boundary of these areas/states.

The GMFMC 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 the Regional Administrator for the Southeast Regional Office of NOAA Fisheries. The SAFMC has 13 voting members: 8 public members appointed by the Secretary; one each from the fishery agencies of Florida, Georgia, South Carolina, and North Carolina; and the Regional Administrator for the Southeast Regional Office of NOAA Fisheries. The public is also involved in the fishery management process through participation on advisory panels and through council meetings that, with few exceptions for discussing personnel matters, are open to the public. The regulatory process is also 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.

Regulations contained within the CMP FMP as amended are enforced through actions of the NOAA's Office of Law Enforcement, the United States Coast Guard, and the various state authorities. To better coordinate enforcement activities, federal and state enforcement agencies have developed cooperative agreements that together provide a coordinated approach to enforce the M-SFCMA.

6.3.2 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. When adopting management measures the Councils typically ask state

authorities to adopt compatible regulations to ease compliance and to ameliorate the enforcement burden. The Councils have also taken action to be consistent with state regulations.

7.0 ENVIRONMENTAL CONSEQUENCES

This section describes the potential direct, indirect, and cumulative effects on the physical, biological, socioeconomic, and administrative environments associated with each management alternative. The Council on Environmental Quality (CEQ) regulations (40 CFR 1508.8) define direct effects as those "which are caused by the action and occur at the same time and place." Indirect effects are defined as those "which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." Cumulative effects are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such actions. Cumulative impacts could result from individually minor but collectively significant actions taking place over a period of time." Cumulative impacts are discussed in Section 7.4 and Section 8.0.

7.1 Description of Alternatives

Action 1. Alternatives to maintain the commercial king mackerel fishery at current levels of participation and possible reductions through attrition.

Alternative 1. No Action - After October 15, 2005, the commercial king mackerel permit moratorium will be allowed to expire. There will be no limit on the number of commercial king mackerel vessel permits issued by NMFS, but applicants will need to meet the income qualification requirement before a new permit will be issued.

Alternative 2. Extend the commercial king mackerel permit moratorium for another 5 years to expire on October 15, 2010. Such permits will be renewable and transferable in the same manner as currently prescribed.

Alternative 3. Extend the commercial king mackerel permit moratorium for another 10 years to expire on October 15, 2015. Such permits will be renewable and transferable in the same manner as currently prescribed.

Preferred Alternative 4. Establish a limited access system for the commercial fishery for Gulf and Atlantic group king mackerel. A commercial king mackerel limited access permit will replace the existing commercial king mackerel permit, and a separate Gulf gill-net permit will replace the current gill-net endorsement in the Gulf. All vessels with valid permits and/or endorsements on the date that this amendment is approved will be issued such permits, and they will be renewable and transferable in the same manner as currently prescribed for general permits and gill-net endorsements in the Gulf, respectively.

Action 2. Alternatives to change the fishing year for Atlantic migratory group king and Spanish mackerel

Alternative 1. No Action. The current fishing year for both king and Spanish Atlantic migratory groups is April 1 through March 31.

Preferred Alternative 2: Change the Atlantic migratory group king and Spanish mackerel fishing year to begin March 1 rather than April 1. The fishing year would be March 1 through February 28/29.

Alternative 3: Change the Atlantic migratory group king and Spanish mackerel fishing year to begin January 1 rather than April 1. The fishing year would be January 1 through December 31.

7.2 Environmental Effects of Alternatives and Their Significance

7.2.1 Direct and Indirect Effects of Alternatives on Physical Environment

The actions proposed in this amendment should not have any impact on the physical environment. Neither action would affect the way the fishery is currently conducted. Consequently, there would be no increases in the number of participants. There would also be no changes to the type of gear used that may positively or negatively affect any of the identified or functional aspects of the ecosystem. Currently, only hook-and-line gear and run-around gill nets are allowed, and neither of these gears interact with the bottom to any degree that would result in impacts (EIS for EFH in the Gulf of Mexico). Sink gill nets and stab nets are also allowable gear in the Atlantic; however, there usage is very limited in the EEZ and thus would have no significant impacts on the physical environment.

Action 1. King mackerel permit moratorium.

The preferred alternative for Action 1 (Preferred Alternative 4) would continue the existing prohibition on allowing new entrants into the fishery for an indefinite period of time. Alternatives to continue the moratorium for a 5 or 10 year period, as with Alternatives 2 and 3 would likewise have no impacts because they accomplish the same goal but for a limited period of time. Alternative 1 which would return the fishery to open access could only impact the physical environment if a large number of additional participants entered the fishery. Indirect impacts could occur from increased pollution from vessels. Such is not likely because the king mackerel fishery is primarily governed by a hard quota which when met, the fishery is closed. Consequently, even an increase in the number of participants would not likely increase available effort that might result in increased pollution. Effort would only be spread over a larger number of participants. Furthermore, the commercial king mackerel fishery is only an extremely small portion of the number of vessels (commercial and recreational) that contribute to pollution in the Gulf and Atlantic.

Action 2. Fishing year for the Atlantic migratory group king and Spanish mackerel fisheries.

The preferred alternative for Action 2 (Alternative 2) would change the start of the fishing year for the Atlantic king and Spanish mackerel fishery from April 1 to March 1 to help ensure that the king mackerel fishery is open during the month of March when other fisheries are closed under current regulations. Alternative 1 would maintain the April 1 opening of the fishing year, and Alternative 3 would change the opening to January 1. None of these alternatives would change fishing practices that might affect the physical environment under the current management regime.

7.2.2 Direct and Indirect Effects on Biological/Ecological Environment

Action 1. King mackerel permit moratorium.

Section 3.0 provides a comparative analysis of the potential biological and ecological impacts of the management alternatives regarding the king mackerel permit moratorium. None of the alternatives are expected to result in significant adverse direct or indirect biological impacts. Although allowing the moratorium to expire (Alternative 1) would likely result in an increase in the number of permits no appreciable increase in effort is anticipated due to the imposition of hard quotas (TACs). Both the Gulf and Atlantic king mackerel fisheries are closed when the TAC (or any quota under the TAC) is landed. Consequently, allowing additional participants to enter the fishery could only

increase commercial landings in areas where subquotas are currently not being harvested and only to the level of TAC. Therefore, impacts of such action would primarily be to distribute the TAC among a larger number of fishermen.

Additionally, an increase in participation as might occur with Alternative 1 is not likely to result in increased bycatch and bycatch mortality, unless participants continued to fish for Spanish mackerel, dolphin, or other species that might coexist with king mackerel because the same amount of effort would be expended to harvest the available quotas, albeit by more participants. Such a scenario is not likely to occur. In the Gulf, the commercial king mackerel fisheries have historically closed well before the end of a fishing year, but effort has not shifted to other CMP species when those closings occurred. For example, commercial landings of Spanish mackerel have been considerably below available quotas for over 10 years, and the commercial catch of dolphin is only approximately 5% of the total. In the Atlantic, commercial quotas for king mackerel have seldom been caught, and additional participants could only increase harvests up to the allowable catches. If king mackerel quotas in the Atlantic were harvested as a result of opening access, it is likewise doubtful the participants would switch to harvesting Spanish mackerel or other species that they may not already be permitted to harvest, thereby potentially increasing bycatch of king mackerel, because landings of these species have also been relatively stable at levels less than half of the available TAC.

As noted in Section 1.1, a standardized bycatch reporting methodology is employed in the commercial CMP fisheries using logbooks, and recreational bycatch is collected by the Marine Recreational Fisheries Statistics Survey (MRFSS). Based on these reporting systems, bycatch appears to be limited in the hook-and-line king mackerel fishery, which comprises the majority of the effort in the fishery; much of the "bycatch" is marketable, and thus is considered incidental harvest.

The Southeast Region Current Bycatch Priorities and Implementation Plan FY04 and FY05 reports that 26 species of fish are caught as bycatch in the Gulf king mackerel gill-net fishery. Of these, 34% are reported to be released dead, 59% released alive, and 6% undetermined. Bycatch was not reported for the Gulf Spanish mackerel fishery. The South Atlantic Spanish mackerel fishery has 51 species reported as bycatch with approximately 81% reported as released alive. For the South Atlantic king mackerel fishery 92.7% are reported as released alive with 6% undetermined. Bycatch was not reported separately for gill nets and hook-and-line gears.

Bycatch of king mackerel in the form of regulatory discards is also minimized for the gill-net fisheries because the allowable minimum mesh size (4.75 inches stretched mesh) is correlated with the minimum size limit of 24 inches FL, allowing smaller fish to escape. Gill nets used for Spanish mackerel are allowed a smaller mesh size (3.5 inches stretched mesh) since they have a smaller minimum size limit (12 inches FL) than king mackerel, and may produce a larger amount of regulatory discards of smaller king mackerel, albeit unquantified. Bycatch data in the CMP gill-net fishery has also been collected for the last 2 years via the supplementary discard program, which was implemented in August 2001. Overall, menhaden, smooth dogfish sharks, and spiny dogfish sharks were the three most frequently discarded species. Although gill nets have been known to capture both sea turtles and marine mammals in other fisheries, Poffenberger (2004) did not observe any encounters for the last 2 years. Based on these data showing very little bycatch in these fisheries and under the current allowable gears and other management measures, both implemented and proposed in this amendment, there should be no direct impacts to the biological or ecological environments.

To the extent that the continuation of the moratorium (Alternatives 2 or 3), or more especially an indefinite limited access system (Preferred Alternative 4) maintains or further reduces participation in the fishery, a positive indirect effect could be some biological improvement and accelerated recovery of the Gulf group king mackerel stock. However, such impacts, if any, would likely be

insignificant due to the fact that permits would remain transferrable, and the major factor affecting commercial harvest is the TAC.

Action 2. Fishing year for the Atlantic migratory group king and Spanish mackerel fisheries.

Section 3.0 provides a comparative analysis of the potential biological and ecological impacts of management alternatives for maintaining or changing the fishing year for Atlantic group king and Spanish mackerel. In summary, Alternative 1 maintains the fishing year at April 1 through March 31; Preferred Alternative 2 changes the fishing year to begin on March 1; and Alternative 3 changes the fishing year to begin on January 1. None of these alternatives is expected to affect the total annual harvests of king and Spanish mackerel or bycatch as discussed above. These commercial fisheries are governed by hard quotas under which the fisheries are closed when the quota is reached, and these quotas have not been reached since 1995 for Spanish mackerel and 1998 for king mackerel.

7.2.3 Direct and Indirect Effects on Social and Economic Environment

Action 1. King mackerel permit moratorium.

Economic Impacts

Additional discussions on the expected impacts of these alternatives are contained in Section 3.0 and 4.0 and are incorporated herein by reference. Alternative 1 would maintain the permit requirement to participate in the commercial king mackerel fishery but allow the fishery to revert to open access. Under the current program to limit access for this fishery, entry is determined by a market-based permit transfer system that allows those seeking to enter the fishery, access through the purchase of a permit from an existing participant who wishes to exit the fishery. Current market prices for this permit are estimated to range from $1,500 to $4,000. This market system allows not only the entry of new participants but also allows some compensation for those who exit. An estimated 1,740 vessels were permitted to participate in the fishery in 2003. An estimate of the average number of transfers per year is unavailable, but approximately 309 of the 2003 permits had been transferred at least once. The annual producer surplus for this fishery under the current program to limit access is estimated to be $142,650 to $380,400.

The direct effect of reversion to an open access system would be the elimination of the market-based access system and the benefits associated with the limited access system. Entry would no longer be limited to the replacement of current participants. New entrants would simply have to meet commercial fishing permit qualification criteria (see Section 4.4). This would be expected to result in an increase in participation in the fishery, but not necessarily harvests, since other regulatory factors and the migratory patterns of the species appear to largely determine total harvests. This additional participation could dissipate current fishery profits and producer surplus, potentially to the point of their total elimination. The fishery would be expected to remain viable, but some current participants may be forced to exit the fishery due to deteriorating economic conditions.

Alternatives 2, 3, and Preferred Alternative 4 would continue to limit access and the benefits associated with this system. All current business practices could continue unchanged, allowing production of current revenues and producer surplus. In fact, despite opportunities to enter the fishery under the current system, fishery participation has declined. Should this decline continue, participants that remain in the fishery under a limited access system would be expected to see their benefits increase as total effort declines. Under the assumption of continued decline in participation, the annual producer surplus for this fishery is forecast to increase to $166,100 to $443,000 by 2010 and $185,200 to $493,900 by 2015.

Although Alternatives 2, 3, and Preferred Alternative 4 vary in duration, but no differential economic impacts are expected due to the different time horizons that the alternatives may imply. This is due to the fact that since fishery stabilization is an objective of the Councils, it is logical to assume that the current market based system achieves this stability better than reversion to open access, which would place no functional limit on participation, such that the limit on access would be renewed and continued beyond the terminal date implied by either Alternative 2 or 3. Thus, the perception of current participants and those considering entry is likely that the system will continue for the foreseeable future. Thus, the economic outcomes would be identical. Further, despite the expectation that the system would be continued, it should be understood that any system may be terminated or extended at any time through appropriate regulatory action. Therefore, the terminal specifications of Alternatives 2 or 3 neither guarantee that the systems not be ended sooner than the respective 5- or 10-year periods, nor prevent the systems from being converted to an indefinite duration. Similarly, Preferred Alternative 4 simply specifies that the system remain in place until changed, which can occur at any time through appropriate action.

Alternatives 2 and 3 differ from Preferred Alternative 4, however, in that they would require administrative action in order to continue the limit on access beyond the specified time frame. Thus, an indirect effect of the adoption of either Alternatives 2 or 3 would be the requirement, should it be determined that continuation of the limit on access is the preferred management approach, that additional regulatory action take place. The administrative and development cost of the current action is estimated to be $200,000. This cost could be avoided under Preferred Alternative 4. However, on the flip side, if Preferred Alternative 4 were adopted and it were subsequently determined that limited access should be abandoned, similar regulatory action would be required to change the system. It should be noted, however, that in order to achieve optimal benefits from a fishery resource, some form of limited access is necessary to prevent dissipation of profits and economic rents, and is consistent with the evolving management approach in many other fisheries.

Social Impacts

Action 1 of this amendment addresses whether or not to allow the current moratorium to expire on October 15, 2005, to extend the moratorium for a finite period of time, or to establish a limited access system in the form of an indefinite moratorium on the issuance of new king mackerel permits. If Alternative 1is chosen, and the moratorium is allowed to expire, there could be an increase in participants in this fishery. Although letting the moratorium expire may be advantageous in the short run to fishermen who currently do not have a permit but would like to enter the fishery, an increase in the number of permits could have implications for the current participants in the king mackerel fishery. If the number of people participating in the king mackerel fishery were to increase, it may be difficult for the Councils to manage the fishery to achieve OY levels as prescribed by the M-SFCMA. The king mackerel fisheries in the Gulf and Atlantic are managed by hard quotas under which the fisheries are closed when the respective quotas are reached. The commercial quotas for Gulf group king mackerel in the Gulf have almost always been taken or exceeded. Consequently, there is little room for expansion in the fishery beyond the harvesting capacity of existing participants. On the other hand, quotas for Atlantic group king mackerel have seldom been met. However, there is a substantial number of permittees with extremely low landings such that if these permittees became more active, there would be sufficient effort to meet existing quotas in the Atlantic as well.

At present, the only way to enter the commercial king mackerel fishery is to purchase a permit from someone who already has a permit. Because there are a limited number of permits available, any permit that is for sale has a higher value than that of the actual permit. This allows people who are exiting the fishery and who want to sell their permit to make some profit off of the sale to another person. Since the moratorium on new permits was put into place in 1998, the number of active permits has continued to decline. This may have helped to stabilize the fishery. If the moratorium

on commercial king mackerel permits is allowed to expire, and the number of participants increases, it may be necessary to close the fishery earlier in the season if the quota is met, or to further restrict the amount of catch per boat. Therefore, if more people were to enter the fishery, there would be less profit to be made by all of the participants currently involved. Consequently, individuals would have less money to spend on needed or desired goods and services.

According to letters received and responses generated at the scoping meetings for mackerel and reef fish, many of the fishermen who currently have a mackerel permit are in favor of continuing to limit the number of permits available in this fishery. The explanations given include the concern that if the moratorium is lifted more people would enter into the fishery and increase the chance that the TAC would be met earlier in the season requiring a closure of the fishery for the rest of the season. Others were concerned that they had already paid to buy a permit from someone else, or that the permit they have owned since the moratorium was put into place would lose any potential value for resale if they choose to do so later. Some fishermen stated that they had spent money regearing their boats for the mackerel fishery because they thought they could make it profitable to fish for mackerel under a limited system. If the moratorium expires, and there are no limits to the number of permits, there will potentially be less fish for everyone who participates in this fishery.

With all of the regulations in place for various fisheries, it is getting more difficult for fishermen to switch their effort from one fishery to another. Some fishermen said by having a limited permit system in place that they were already covered under, it would help protect the mackerel fishery for people who are already in the fishery. Others expressed concern that if the moratorium expired, and more people could apply for a permit in the future, fishermen from the recreational sector, i.e. charter boats, would apply for permits and save them in case they have more value in the future, or they would use the permits in the for-hire recreational fishing giving more of the catch to the recreational sector of the fishery.

It is difficult to measure the direct impacts of any of the alternatives for Action 1 due to the limited amount of data concerning the mackerel fishery and its participants. Since there is not sufficient historical data to fully describe mackerel fishery participants, mackerel-dependent businesses, or fishing communities that participated in the fishery prior to when the moratorium on permits was put into place, it is not possible to compare the fishing practices or community participation before the moratorium with the current state of the fishery. In order to describe, compare, and contrast communities that are dependent on the mackerel fishery, complete community profiles need to be developed for communities that meet the definition of a "fishing community" as described in the M-SFCMA. Social science research conducted in the summer of 2004 should aid in the description of affected communities in future amendments for the mackerel fishery.

Alternative 1 for Action 1 has the potential to destabilize the fishery which many describe as beginning to stabilize due to the cap on permits. Under the current permit moratorium the number of active permits continues to decline, which may further stabilize the fishery. At this time, there are inactive permits which could become active and negatively impact the livelihood of existing participants in the fishery. If the Councils choose Alternatives 2 or 3, there would continue to be a cap on the number of permits. This would allow the Councils' more time to consider additional measures to limit access in the fishery and to achieve the desired OY levels. It would also allow time to evaluate the fishery and to see if participation continues to decline in the fishery making it easier to achieve OY. Although the choice of any of these Alternatives, 2, 3, or 4, would continue to make it necessary for anyone wanting to enter into the fishery to purchase a permit, for a fee, from a current participant, this may make managing the fishery at the OY easier for the Councils.

Preferred Alternative 4 would permanently establish a limited access system and would protect the people with permits for the future. Fishermen who have permits would then be able to protect their

investment in gear for the fishery and would possibly feel more secure that they could make a profit from this fishery. It would also protect the resale value of the permits, so that people who buy a permit from another person would know that the fishery was not going to open up again, which would lead to a loss of value for potential resale.

Overall, if the Councils choose Alternative 2, 3, or Preferred Alternative 4, there should be no impacts on the current participants in this fishery since the fishery is already managed under a moratorium that caps the number of permits. At present, there are permits available for sale if someone wishes to enter the mackerel fishery. If this moratorium is extended, or if the Councils establish a limited access system for the commercial Gulf and Atlantic king mackerel fishery, effort in the fishery should not increase, since this amendment will continue to restrict the number of permits available and there is a hard quota in place.

This amendment should not have major impacts on fishermen, fishing-dependent businesses, or fishing communities since it is still possible to enter into the mackerel fishery. There are permits available, for sale or transfer from currently permitted vessels, under the current regulations. The permits are usually sold at a higher cost than they would be available for if there was not a cap on the number of permits. There may be some impacts on fishermen who are hoping to enter the mackerel fishery, if the moratorium were to expire since the cost of buying an available permit may be too high. Because most participants in the mackerel fishery also participate in other fisheries and mackerel usually constitutes a portion of the total catch landed by any particular vessel within a given year, people may decide not to enter the fishery due to the low price they receive for mackerel at the dock compared to the costs incurred and the potential for the fishery to be shut down if the TAC is met or exceeded.

In comparing the four alternatives, if Alternative 1 is chosen, there would be short-term gain by allowing more fishermen into the fishery, but this would also increase the participation in the fishery which may lead to the necessary closure of the fishery early in the season if the TAC is met. Alternatives 2, 3, or Preferred Alternative 4 offer the least negative social impacts overall. If the moratorium is extended, or if the Councils establish a limited access system for the commercial Gulf and Atlantic king mackerel fisheries, then it will facilitate the Councils' continued ability to manage the fishery to meet the OY levels as required by the M-SFCMA. This will continue to cap participation in the mackerel fishery and allow the current participants to catch the most fish allowable before the TAC is met, if the TAC is met at all.

Action 2. Fishing year for the Atlantic migratory group king and Spanish mackerel fisheries.

Economic Impacts

Additional discussions on the expected impacts of these alternatives are contained in Sections 3.0, 4.0, and 5.0 and are incorporated herein by reference. The specification of the fishing year is largely an administrative action. However, the act of changing the specification or not involves the issues of stability and consistency. While any change creates a certain amount of disruption, some changes may support consistency. Consistency reduces confusion and simplifies monitoring and assessment. The benefits of consistency are intangible and cannot be quantified. Alternative 1 would maintain the current specification of the fishing year. Since the current specification does not match the common standard calendar year that is used in practice for most fisheries, the direct cost of the adoption of this alternative would be the foregone benefits of consistency. Preferred Alternative 2 would implement a new fishing year that is both different from the current and the standard specifications. As such, the direct cost of the adoption of this alternative would be the foregone benefits of consistency and additional unquantifiable costs associated with the inefficiencies of imposing a system that is both different from what the industry and associated parties, including the management regime, are familiar with and different from the standard for other fisheries. Thus,

Preferred Alternative 2 would impose greater, unquantifiable direct adverse impacts than Alternative 1. Alternative 3 would establish the fishing year as the calendar year, thereby achieving the benefits of consistency.

The intent of the Councils, however, is to insure that the Atlantic group king mackerel fishery is open in March. Indirect effects can be induced by the specification of the fishing year if a fishery is subject to quota closure. This occurs since closures, unless otherwise specified (i.e., fixed spawning or other seasonal closures), typically occur at the end of the fishing year, which is determined by when the year starts. To the extent that any closure is likely, establishing the beginning of a fishing year increases the probability that closure will occur in the preceding months. Thus, under the current April 1 through March 31 fishing season for the Atlantic migratory groups (Alternative 1), the probability of closure is higher in March than it is in preceding months. A change in the fishing year to March 1 through February 28/29 (Preferred Alternative 2) would eliminate the possibility of a March closure, but increase the probability of a February closure. Similarly, under Alternative 3, December would have the greatest probability of closure.

Altering the probability of closure has economic relevance since, over the course of the year, resource availability varies naturally, particularly with migratory fish; fishing patterns by participants vary (who fishes, where they fish, and how much they fish); and regulations in other fisheries vary. Thus, closure in one month relative to closure in a different month has the potential to affect both different individual participants, as well as the same participants to different degrees. As was discussed by example in Section 4.4, the production and economic profiles of participants in the Atlantic migratory group king and Spanish mackerel fisheries in the areas where primary fishing activity for these species occur in March (North Carolina for king mackerel and east coast Florida for Spanish mackerel) were shown to vary substantially from both the profile for all participants who fish over the course of the year in that area and the overall industry profile (all states over the entire fishing year).

Thus, an indirect effect of the three alternatives are that they increase the probability of closure in different months, as noted above, which has the potential to have substantially different economic consequences. It is noted, however, that in the current situation for the fisheries in question, Atlantic migratory group king and Spanish mackerel, neither fishery is expected to face closure in the near or foreseeable future. The Atlantic group king mackerel fishery has only exceeded the quota three times since 1987, with landings typically falling short of the quota in most years, with harvests not exceeding 2.3 MP since the 1999/00 fishing season compared to a quota of 3.71 MP. Total harvests in the Spanish mackerel fishery have not exceeded the quota since the 1994/95 fishing year. Therefore, no adverse or beneficial indirect economic impacts are expected in the foreseeable future as a result of this action.

Social Impacts

Retaining the fishing year of April 1 through March 31 is not likely to cause adverse impacts to those in the commercial king and Spanish mackerel fisheries. During the scoping process, many fishermen expressed their desire to "leave well enough alone." However, should the quota be met before the end of the fishing year (a possibility due to potential future effort shifts from other fisheries in the South Atlantic), and the fishery shut down, there would be negative social and economic impacts for the fishermen, primarily those who fish from ports in North Carolina (Wanchese and Hatteras in the north, and Wrightsville Beach, Carolina Beach, and Morehead City in the southern area of the state). During the spring, fishermen in this area become more focused on king mackerel fishing. The increase in activity is motivated by a confluence of factors: weather patterns, mackerel market prices (fish consumption increases due to the observance of the Lenten holiday), and spawning season closures on other species of fish. Because of naturally occurring lower landings in the other South Atlantic states (due to migratory patterns), and because south

Florida fishermen are fishing on the Gulf group king mackerel stock at this time, maintaining the status quo fishing year would not impact fishermen in South Carolina, Georgia, and Florida.

Preferred Alternative 2 would change the fishing year to March 1 through February 28/29. While again not impacting the commercial king mackerel fishermen from South Carolina through Florida (again due to the absence of substantial fishing for the Atlantic group stocks during the winter), this action would potentially benefit the fishermen of North Carolina by almost assuring that the fishery will remain open during the Lenten period (when demand and prices are high for mackerel) and when other high-value fisheries are closed. Preferred Alternative 2 would have the most economic and social benefits to fishermen (and certain other consumers), particularly those in North Carolina.

Alternative 3 would change the fishing year to January 1 through December 31. This alternative would offer the benefit of being consistent with other regulations, thus reducing the administrative burden, and streamlining the data analysis process, for example, in conducting stock assessments. When creating the Dolphin/Wahoo FMP, the SAFMC considered but rejected other fishing years such as April 1 through March 31 (dolphin was previously managed under the Coastal Migratory Pelagics FMP) because, where feasible, the SAFMC is trying to have the fishing year coincide with the calendar year. This alternative would have a potential negative impact on North Carolina fishermen if the quota were filled before the end of the year. North Carolina fishermen are particularly active in the mackerel fishery in the Fall, notably November, and fishing for mackerel can help fishermen earn money for the holiday season.

7.2.4 Direct and Indirect Effects on Administrative Environment

Action 1. King mackerel permit moratorium.

Alternative 1 which would return the king mackerel fishery to open access would allow anyone to purchase a commercial king mackerel permit. Choice of this alternative would increase the administrative burden because additional permits would likely have to be issued and monitored for continued qualification by permittees. If these additional permittees actually use their permits as opposed to being speculators, additional administrative resources may be needed to more closely monitor quotas because the additional participation would probably result in earlier closures at least in some areas, particularly the Gulf. Earlier closures would also require an enforcement presence for a longer period of time to prevent illegal fishing which could result in the need for additional assets or a diversion of assets from other enforcement activities. Although these administrative impacts are possible they would probably be relatively insignificant because king mackerel permits have been required since 1985; however the moratorium has only been in effect since 1998. Alternatives 2, 3, and Preferred Alternative 4 would make no changes to the current moratorium. The only difference would be in its duration, i.e., 5 years, 10 years, or indefinitely. Since their would be no changes to current administrative activities from any of these alternatives, no additional impacts to the administrative environment are expected to occur. Under the choice of Alternative 2 or 3 and assuming that the number of vessels does not decline to an optimum level in 5 or 10 years, respectively, an additional amendment would have to be developed in order to maintain a limit on access. This would present administrative burdens in the form of: staff time, possible scoping meetings, public hearings, Councils' time, and reviews by the Councils' scientific and statistical committees (SSCs) and possibly advisory panels (APs).

Action 2. Fishing year for the Atlantic migratory group king and Spanish mackerel fisheries.

Alternative 1 would maintain the existing fishing year (no action) and would not alter the current administrative environment. Preferred Alternative 2 would move the start date one month, from April 1 to March 1. This minor shift would likewise not result in any significant change in the commitment of administrative resources, but it would require implementation in the form of actions

to implement proposed and final rules. Alternative 3 would change the fishing year to be consistent with most other FMPs in the South Atlantic and with the calender year. The initial administrative impacts of this alternative would be the same as those associated with Preferred Alternative 2, i.e., the requirement of implementing proposed and final rules. On the other hand, Alternative 3 would provide greater consistency with other FMPs, thus there should be a lessening of administrative impacts in the long term. This action would also make the fishing year consistent with record keeping of landings data.

7.3 Mitigation Measures

No significant adverse effects are anticipated from any of the alternatives being considered. Therefore, no mitigation measures are proposed for any of these alternatives.

7.4 Cumulative Effects

Continuation of a program to limited access in the commercial king mackerel fishery would allow the continuation and possible increase in the positive net benefits that have accrued to this fishery through a cap on participation in conjunction with other management measures. This will contribute to overall improvement in benefits as fishery performance improves in other fisheries or, aid in offsetting adverse impacts that accrue to other regulatory actions. Reversion to an open access system in the fishery could contribute to the elimination of economic and social benefits and add to the growing list of adverse pressures on economic viability for fishermen and associated industries. It is doubtful that open access would change the biological benefits that have accrued to the king mackerel stocks because these have primarily come from hard TACs that have limited commercial harvests, as well as bag and size limits.

Unless a quota closure is expected for a fishery, which is not the case for either the Atlantic migratory group king or Spanish mackerel fisheries, changing the fishing year is largely an administrative action with no direct adverse biological/ecological, social, or economic impacts. There are no foreseeable actions that in combination with the actions proposed in this amendment would produce additional cumulative impacts. Consequently, no additional cumulative effects of any significance on any of these environments is expected.

7.5 Unavoidable Adverse Effects

Alternatives 2 through 4 under Action 1 could exclude some people from entering the fishery in the future. This is an unavoidable adverse effect of continuing a limit on access, but such effects are expected to be offset by the long-term socioeconomic benefits associated with a limited access program. Additionally, any benefits that would have accrued to future participants would probably be dissipated over time under an open access management regime.

As discussed in Sections 3.0 and 4.0, maintaining the existing fishing year or modifying it for Atlantic group king and Spanish mackerel coupled with a reduction in TAC could result in adverse impacts to some portion of the commercial fleet due to a quota closure. This is due to the migratory nature of these species and their availability in different areas at different times of the year. However, based on the current and past status of these stocks, as well as their current and past harvest levels, a reduction in TAC below recent catch levels would not appear to be needed. Furthermore, since the need and magnitude for such a TAC adjustment cannot be predicted or measured, it cannot be analyzed.

7.6 Relationship Between Short-Term Uses and Long-Term Productivity

While the short-term uses of these fisheries may be affected by not allowing additional or new participants into the fishery, long-term productivity should benefit. The cap on additional participation in the form of new participants is an integral part of the overall management strategy to achieve OY and thus maximize the overall benefits to the Nation of the king mackerel fishery. Shifting the start of the fishing year should improve both short-term and long-term productivity by ensuring that the TAC for the fishery is not met early in the calendar year and the fishery closed during the same time as seasonal closures in other fisheries. Consequently, these actions should provide greater stability to these fisheries in the long run.

7.7 Irreversible and Irretrievable Commitments of Resources

There are no irreversible commitments of resources other than costs of administering and enforcing the proposed rule resulting from implementation of this amendment. Implementing the proposed actions should not increase or otherwise change the cost or reduce the revenues of affected vessels/boats.

7.8 Any Other Disclosures

No additional disclosures are known to be needed or discussed from the actions proposed or discussed in this amendment.

7.9 Bycatch Practicability Analysis

The Council is required by M-SFCMA §303(a)(11) to establish a standardized bycatch reporting methodology for federal fisheries and to identify and implement conservation and management measures that, to the extent practicable and in the following order, (A) minimize bycatch and (B) minimize the mortality of bycatch that cannot be avoided. The M-SFCMA defines bycatch as "fish which are harvested in a fishery, but which are not sold or kept for personal use, and includes economic discards and regulatory discards. Such term does not include fish released alive under a recreational catch-and-release fishery management program" (M-SFCMA §3(2)). Economic discards are fish that are discarded because they are undesirable to the harvester. This category of discards generally includes certain species, sizes, and/or sexes with low or no market value. Regulatory discards are fish that are required by regulation to be discarded, or that are required to be retained but not sold.

As noted in Section 1.1, a standardized bycatch reporting methodology is employed in the commercial CMP fisheries using logbooks, and recreational bycatch is collected by the Marine Recreational Fisheries Statistics Survey (MRFSS). Based on these reporting systems, bycatch appears to be limited in the hook-and-line king mackerel fishery, which comprises the majority of the effort in the fishery; much of the "bycatch" is marketable, and thus is considered incidental harvest. Bycatch information from commercial gill nets has recently been collected via the supplementary discard program, which was implemented in August 2001. To better document the total quantity of bycatch and non-mackerel incidental harvest in the fishery would require more direct observations, such as observer programs, which have been implemented for the more bycatch-prone gill-net fisheries. Observers programs are expensive, and cost prohibitive at this stage to monitor a hook-and-line fishery where the majority of the non-targeted catch is estimated to be released alive.

NOAA Fisheries outlines at 50 CFR 600.350(d)(3)(I) ten factors that should be considered in determining whether a management measure minimizes bycatch or bycatch mortality to the extent practicable. These ten factors are:

1. Population effects for the bycatch species;
2. Ecological effects due to changes in the bycatch of that species (effects on other species in the ecosystem);
3. Changes in the bycatch of other species of fish and the resulting population and ecosystem effects;
4. Effects on marine mammals and birds;
5. Changes in fishing, processing, disposal, and marketing costs;
6. Changes in fishing practices and behavior of fishermen;
7. Changes in research, administration, and enforcement costs and management effectiveness;
8. Changes in the economic, social, or cultural value of fishing activities and non-consumptive uses of fishery resources;
9. Changes in the distribution of benefits and costs; and
10. Social effects.

Other than the administrative effects from the proposed change to the start of the fishing year, implementation of the preferred alternative is not expected to implicate factors 5-10. The proposed action with regard to limiting access is based on the need to maintain the existing fisheries in their current form, which as discussed below, result in relatively little bycatch or bycatch mortality. Any additional actions to further reduce bycatch in the fishery would inevitably affect effort or gear, resulting in potentially adverse changes to associated costs, benefits, and behavior of fishery participants. Also, new measures would result in additional administrative burdens related to implementation and enforcement.

In regard to factors 1-4, as noted in Section 3.0 and below, there is very little bycatch that results from the commercial king and Spanish mackerel fisheries in the Gulf and Atlantic under current regulations. Furthermore, the proposed regulations in this amendment would not change the manner in which the fisheries are conducted and thus would not change bycatch over the course of a fishing year.

According to the bycatch information for gill nets, obtained from the existing reporting requirements addressed above, menhaden, smooth dogfish sharks, and spiny dogfish sharks were the three most frequently discarded species. There were no interactions of sea turtles or marine mammals reported (Poffenberger 2004). The Southeast Region Current Bycatch Priorities and Implementation Plan FY04 and FY05 reports that 26 species of fish are caught as bycatch in the Gulf king mackerel gill-net fishery. Of these, 34% are reported to be released dead, 59% released alive, and 6% undetermined. Bycatch was not reported for the Gulf Spanish mackerel fishery. The South Atlantic Spanish mackerel fishery has 51 species reported as bycatch with approximately 81% reported as released alive. For the South Atlantic king mackerel fishery 92.7% are reported as released alive with 6% undetermined. Bycatch was not reported separately for gill nets and hook-and-line gears. Additionally, the supplementary discard program to the logbook reporting requirement shows no interactions of gill-net gear with marine mammals or birds.

Bycatch of king mackerel in the form of regulatory discards is also minimized for the gill-net fisheries because the allowable minimum mesh size (4.75 inches stretched mesh) is correlated with the minimum size limit of 24 inches FL, allowing smaller fish to escape. Gill nets used for Spanish mackerel are allowed a smaller mesh size (3.5 inches stretched mesh) since they have a smaller minimum size limit (12 inches FL) than king mackerel, and may produce a larger amount of regulatory discards of smaller king mackerel, albeit unquantified. Recognizing some regulatory discard is inevitable, especially in gill-net fisheries, the Councils established minimal allowances for landing undersized fish or limited numbers of king mackerel found in a catch of Spanish mackerel. Based on these data showing very little bycatch in these fisheries and under the current

allowable gears and other management measures, there should be no direct impacts or ecological impacts.

With the exception of a few species such as menhaden, spiny dogfish, and dolphin, stock assessments do not exist for much of the bycatch, and many of the species are not managed by either state or federal agencies. Thus, although not precisely known, bycatch and bycatch mortality on non-mackerel incidental harvest is thought to be minimal compared to other sources of mortality on these species. For example, 4-7 million pounds of spiny dogfish are landed annually in the Atlantic and nearly 2 billion pounds of menhaden are landed annually in the Gulf and Atlantic combined. As noted above, a majority of the bycatch is released alive, especially in the hook-and-line fisheries.

Ecosystem interactions among pelagic species in the marine environment is poorly known. Most species are migratory, interacting in various combinations of species groups at different levels on a seasonal basis. With the current state of knowledge, it is not possible to evaluate the potential ecosystem wide impacts of these species interactions, or the ecosystem impacts from the limited mortality estimated to occur from mackerel fishing effort. Better documentation of the community dynamics would require substantial research efforts, focused in offshore waters, that would be exorbitantly costly in terms of time and funding. Recent advances in ecosystem modeling may provide some insight into the cascading effects of increasing or decreasing stocks that comprise the marine pelagic community, of which mackerel are a part. Currently, the only model for the Gulf of Mexico (which could be expanded to include the Atlantic) capable of addressing these issues, is an Ecopath model being developed by Florida Marine Research Institute and NOAA Fisheries. The development of this model is in the early stages and, at present, the precision of the model is low (Behzad Mahmoudi, personal communication). Therefore, it would be impracticable and cost prohibitive to apply the model at this time. The SAFMC is also preparing a Fishery Ecosystem Plan/Comprehensive Amendment to address ecosystem interactions.

Currently, it is not possible to quantify the impacts of the king mackerel fishery on common bycatch species, or the effect that such bycatch has on the overall environmental community. As noted in Section 7.2.1, the actions proposed in this amendment should not have any impact on the physical environment. Neither action would affect the way the coastal migratory pelagic fisheries are currently conducted, nor the number of participants. There would also be no changes to the type of gear used that may positively or negatively affect any of the identified or functional aspects of the ecosystem. Given that many of the bycatch species are common bycatch in other fisheries, such as for shrimp, the limited mortality on such species due to king mackerel fishing would be comparatively inconsequential.

Given the minimal impacts of bycatch and bycatch mortality for the associated fisheries, and the potential adverse impacts associated with further restrictions on the fishery, current measures are thought to reduce bycatch to the extent practicable. This determination may change as new information and technologies become available.

8.0 FINDING OF NO SIGNIFICANT IMPACT

The Gulf of Mexico and South Atlantic Fishery Management Councils (Councils) are submitting the attached Amendment 15 to the Fishery Management Plan for Coastal Migratory Pelagic Resources in the Gulf of Mexico and South Atlantic Region for Secretarial review under procedures of the M-SFCMA. This amendment was developed as an integrated document that includes an Environmental Assessment, Regulatory Impact Review, and Regulatory Flexibility Act Analysis. Copies of the amendment are available from the Councils at the following addresses:

Gulf of Mexico Fishery Management Council
The Commons at Rivergate

South Atlantic Fishery Management Council
1 Southpark Circle

3018 North U.S. Highway 301
Suite 1000
Tampa, Florida 33619

Suite 306
Charleston, South Carolina 29407

Mid-Atlantic Fishery Management Council
300 South New Street, Federal Building, Room 2115
Dover, Delaware 19904-6790

Through this amendment, the Councils propose to:

1. **Establish a limited access system for the commercial fishery for Gulf and Atlantic group king mackerel. A commercial king mackerel limited access permit will replace the existing commercial king mackerel permit, and a separate Gulf gill-net permit will replace the current gill-net endorsement in the Gulf. All vessels with valid permits and/or endorsements on the date that this amendment is approved will be issued such permits, and they will be renewable and transferable in the same manner as currently prescribed for general permits and gill-net endorsements in the Gulf, respectively.**

2. **Change the Atlantic migratory group king and Spanish mackerel fishing year to begin March 1 rather than April 1.**

Limited access via permit moratorium was begun in the commercial king mackerel fishery in 1998 and provides for market-based compensation to those wishing to exit the fishery through the sale of permits. Such, compensation, however, represents a cost of entry to those seeking to enter the fishery. Under the current system, the total number of permits and the number of vessels that actually land king mackerel on an annual basis has declined by an average of 4.5% per year in terms of total permits since the initiation of the limit on access. The permit market provides an economically rational basis for regulating entry into the fishery and allocating access to fishery resources among potential users. Alternatives 2, 3, and Preferred Alternative 4 under Action 1would continue to limit access for differing periods of time, thereby continuing the market-based participation system. Although the rate of decline may change, assuming the number of permitted vessels continues to decline by 4.5% per year, the number of permitted vessels is estimated to be 1,260 in 2010 (in 5 years under Action 1, Alternative 2) and 1,001 in 2015 (in 10 years under Action 1, Alternative 3). No projections are made for Action 1, Preferred Alternative 4 due to the lack of specificity of an indefinite moratorium. A decrease in the number of permitted vessels would lead to an expected decrease in the number of vessels landing king mackerel and, thereby, to an expected increase in producer surplus from that in 2003, an estimated $142,650 to $380,400.

A return to open access conditions, as would occur under Alternative 1, is expected to lead to an increase in the number of permitted vessels sufficient to potentially dissipate the current producer surplus, estimated at $142,650 to $380,400 in 2003.

The specification of the fishing year (Action 2) is largely an administrative action that affects the accounting of fishing harvests and activity. If this accounting does not affect the timing (when participants fish) or intensity (how much the participants fish) of fishing, then, by extension, the accounting would not affect who participates in the fishery. Under current TACs and historical harvest patterns in the Atlantic migratory group king and Spanish mackerel fisheries, no quota closures or other participation restraints are expected. Therefore, all participants in the fishery would be expected to be able to fish as they currently do for these species. Therefore, no adverse social or economic impacts are expected from any of the alternatives.

Establishing a fishing year that is consistent in practice with that of most other fisheries, however, would be expected to generate the intangible and unquantifiable benefits of consistency. These benefits relate to the simplification of monitoring and assessment activities that occurs when different fisheries share the same time frame of focus. Deviation from a standard or norm adds confusion and increases the time required to conduct necessary analyses and, to a degree, would be expected to increase the error rate of assessment. The current specification for the fishing year for most fisheries is January 1 through December 31 and, therefore, represents the standard for consistency. Alternative 3 would be consistent with this standard and, therefore, would generate most of these unquantifiable benefits. Alternative 1, the no-action status quo alternative, would be expected to generate no benefits of this type but would, rather, be expected to continue to produce the negative effects of deviation from the standard. Preferred Alternative 2, which would change the current specification, but not mirror the standard, would similarly not be expected to produce the benefits of consistency and would, instead, be expected to increase the negative effects of the status quo since it would establish a new specification that would be simultaneously inconsistent with the historic specification and the standard used for most other fisheries.

Specification of the fishing year does, however, have the potential to induce distributional effects as it affects which months a closure, should such be necessary, would occur, thereby determining which subset of fishery participants become impacted. For the Atlantic migratory groups of king and Spanish mackerel, a year-end closure in March would affect king mackerel fishermen primarily in North Carolina, and Spanish mackerel fishermen primarily on the Florida east coast. These participants have different production profiles than all participants in these respective fisheries combined. Among vessels that land Atlantic migratory group king mackerel, those that land this species in March in North Carolina tend to have much higher average annual gross revenue than all vessels that land the species in North Carolina ($27,000 to $33,000 vs. $10,000 to $14,000) and derive a larger portion of their gross revenue from king mackerel (30% vs. 22%). Among the vessels that land Atlantic migratory group Spanish mackerel, those that land the species in March on the Florida east coast, where the majority of landings occur in this fishery, tend to have higher average annual gross revenue than all vessels that land the species in Florida ($13,000 to $16,500 vs. $9,000 to $11,000), and derive more of their gross revenue from this species (28% vs. 18%).

The CEQ regulations implementing the National Environmental Policy Act (NEPA) and NOAA's Administrative Order (NAO) 216-6 require that decision makers take into account both context and intensity when evaluating the significance of impacts resulting from a major Federal action (40 CFR 1508.27; NAO 216-6, Section 6.01[b]). Evaluating significance with respect to context requires consideration of the local, regional, national, and/or global impacts of the action. Intensity refers to the severity of the impact, and is to be evaluated using specific criteria outlined at 40 CFR 1508.27(b) and at NAO 216-6, Sections 6.01(b) and 6.02. The key findings of the Council related to the significance of the impacts associated with the proposed actions follow. The findings are organized under the intensity criteria and include a consideration of the context in which the impacts occur.

(1) Beneficial and Adverse Impacts:
Potential beneficial and adverse impacts of the proposed actions are detailed in Section 7.0 and summarized in Section 4.0. These impacts are not expected to be significant.

Action 1 (establish a permanent/indefinite limited access program for the king mackerel fishery) would continue the existing restrictions on participation in the king mackerel fishery. This limited entry program, initiated in 1998, has led to a reduction in the number of permitted fishermen over time. At the start of the 1998/99 fishing season, there were more than 2,100 commercial permits for king mackerel and king mackerel in combination with Spanish mackerel. As of August 2004, there were 1,683 active permits for king mackerel. Over the same time period, the TAC for both Gulf group and Atlantic group king mackerel has increased; therefore there has been an increased

opportunity for participants to take a larger share of the harvest. Consequently, to date, the moratorium in conjunction with other management measures has had a beneficial impact on the stocks and on fishery participants. This trend is expected to continue. The most recent approved stock assessments indicate that neither the Gulf or South Atlantic migratory groups of king mackerel is overfished or undergoing overfishing. The biomass of Atlantic migratory groups of king and Spanish mackerel, as well as Gulf migratory group Spanish mackerel have achieved B_{OY} or greater, and the biomass of the Gulf group king mackerel is nearing B_{OY}.

Action 2 (change the fishing year for the Atlantic king and Spanish mackerel fisheries to begin March would reduce the possibility that the mackerel fisheries would be closed during late winter and early spring when fisheries for other species (e.g., red porgy, amberjack, gag and black grouper) are closed. The mackerel fisheries are not likely to close under the current TAC. However, this adjustment to the fishing year would benefit the social and economic environment by increasing the availability of fish to fishermen during this period of time if a future reduction in catch resulted in an early closure of the fishery.

Both actions are intended to aid the Councils in achieving OY and providing the greatest overall benefit to the Nation from the king mackerel fishery.

(2) Public Health or Safety:
The proposed actions would extend the limited entry program for an indefinite period, and adjust the starting date of the fishing year for a segment of the fishery. These actions are not expected to affect the manner in which the fishery is conducted, and thus are not anticipated to have any effect on public health or safety. By maintaining a limited number of participants in the fishery, there should be less chance of creating a derby fishery. This will reduce the likelihood that fishermen would have to fish in bad weather, thus increasing vessel safety.

(3) Damage to ocean and coastal habitats or EFH and consideration of unique geographic areas:
The actions considered in this amendment are not expected to significantly impact the physical environment. Neither action would affect the way the fisheries are currently conducted. The commercial fishery is controlled by a hard quotas, therefore no matter how many participants are involved, or when the fishing season begins and ends, the fishery is closed when the quotas are filled. The Council and NOAA Fisheries has determined that the proposed actions are consistent with the enforceable laws of the Coastal Zone Management programs of the affected states (see Section 9.2). There would be no effect to park lands, prime farmlands, wetlands, or wild and scenic rivers because those resources are onshore or near shore, not in the EEZ. Mackerel fishing does occur in or adjacent to sensitive areas such as Habitat Areas of Particular Concern, marine sanctuaries, and marine reserves. However, most mackerel are caught with hook-and-line gear that is trolled or otherwise fished near the surface. Hook-and-line gear could become entangled within bottom structures; however, such impacts to hard-bottom habitat are expected to be minimal. Gill nets are used in the Gulf king mackerel fishery by 12 to 20 vessels in the Florida Keys and to a limited degree off North Carolina. They have not been identified as potentially damaging to hard bottom habitats.

The area affected by the proposed actions includes areas that have been identified as EFH for several other managed species. However, the proposed actions in the context of the fishery as a whole are not anticipated to have an adverse impact on EFH.

(4) Highly Controversial Effects on Human Environment:
The actions proposed in this document are not considered to be highly controversial. The Councils have provided for input by the public through committee and council meetings that are open to the public and through meetings with the mackerel advisory panel. Public comment received during the scoping process has been in support of the proposed actions.

(5) Uncertain, Unknown, or Unique Risks:
There are no highly uncertain, unique or unknown risks associated with the proposed actions. Under the current management strategy described in Section 1.2, the stock of Gulf group king mackerel has recovered from overfished and overfishing designations, and all other stocks of king and Spanish mackerel have been rebuilt to B_{OY}. The public has expressed support for maintaining the limit on access as well as the proposed modification to the fishing year for Atlantic group king and Spanish mackerel, thus the proposed actions are not expected to be controversial.

(6) Precedence:
The proposed actions to maintain a limit on access in the king mackerel fishery and to change the fishing year for the Atlantic group king and Spanish mackerel fisheries would not establish new precedence that would represent a decision in principle about a future consideration.

(7) Jeopardy to the sustainability of target and non-target species:
The proposed actions are not expected to jeopardize the sustainability of target or non-target species. As noted in (5) above, under the current management strategy described in Section 1.2, the stocks of mackerel have recovered from overfished and overfishing designations, and all but one stock is rebuilt to B_{OY}. The public has expressed support for maintaining limited access, and thus the proposed actions are not expected to be environmentally controversial. Non-target bycatch is limited in these directed hook-and-line and strike gill-net fisheries; much of the incidental harvest is marketable and thus is not considered bycatch. Given that the commercial fisheries are managed under hard quotas, there would probably not be an expansion of effort that would increase the opportunity for additional fishing mortality on target or non-target species. A formal Section 7 consultation will be conducted; however, based on the results of previous consultations, the CMP fishery and proposed actions in this amendment are not expected to jeopardize the continued existence of any endangered or threatened species that may be encountered in this fishery.

(*8) Impacts on biodiversity and ecosystem function*:
Recent advances in ecosystem modeling may provide better insight into the potential impacts of management regulations on biodiversity and ecosystem functions in the future. At present, however, there is insufficient data to render decisions regarding such impacts to king and Spanish mackerel, the species to which they interact, or their ecosystems in the Gulf and Atlantic. Biodiversity and the functional aspects of ecosystems on which king and Spanish mackerel rely change constantly by area and time, with or without the influences of fishing. On the other hand, fishing and actions to regulate fishing may or may not cause impacts to biodiversity and the function of ecosystems. The proposed Action 1 would only allow the current number of vessels that are permitted to harvest king mackerel to remain in the fishery; therefore, this action would not cause any change to current fishing effort, methods, gear, etc. Additionally, Action 2 is merely an administrative action that sets the fishing year. Consequently, no impacts to biodiversity or the function of ecosystems are expected to occur from either of these proposed actions.

(9) Cumulative impacts to target and nontarget species and the environment:
The cumulative effects of the proposed actions are described in Section 7.4, and they are expected to be positive, but not significant. The cumulative impacts of previous actions to manage king and Spanish mackerel stocks have had a positive impact on the environment as evidenced in the recovery of the various stocks.

(*10) Historical/Cultural Impacts:*
No known sites included in the National Register of Historic Places have been identified in the action area. The proposed actions will not result in any significant impacts on scientific, cultural, or historical resources such as the Monitor National Marine Sanctuary etc. (see Damage to ocean and coastal habitats or EFH and consideration of unique geographic areas [#3]).

(11) Endangered Resources:
The last formal ESA Section 7 consultation was completed on Amendment 6 to the CMP FMP. The resulting August 19, 1992, biological opinion concluded that fisheries for coastal migratory pelagic resources were not likely to jeopardize the continued existence of any endangered or threatened species under its jurisdiction. An incidental take statement was issued and reasonable and prudent measures were specified to minimize such adverse impacts (NMFS 1992). Over the twelve years that have elapsed since then, new information regarding the status of listed species and the effect actions have on them has accumulated. Additionally, the fishery for coastal pelagic resources may affect a new species listed as endangered, the smalltooth sawfish. Critical habitat for the northern right whale was also designated after the 1992 consultation (58 FR 28793, June 3, 1994). A Section 7 consultation has been initiated on the impacts of the actions in this amendment, as well as from the fishery itself.

(12) Interaction With Existing Laws for Protection of the Environment:
The proposed actions will not threaten or violate federal, state, or local laws or regulations imposed for the protection of the environment. These include the ESA, CZMA, and other applicable laws described in Section 9.0.

> Based on the analyses and discussions in this document, including its EA, and in the other referenced documents and sections herein, I have determined that the proposed actions to establish a limited access system for the commercial fishery for Gulf and Atlantic group king mackerel and change the Atlantic migratory group king and Spanish mackerel fishing year to begin March 1 would not significantly affect the quality of the human environment. Accordingly, preparation of a SEIS is not required by Section 102(2)(c) of NEPA, by the CEQ regulations implementing NEPA, or by NAO 216-6."

Approved:_____ _____
Assistant Administrator for Fisheries Date

9.0 OTHER APPLICABLE LAW

The M-SFCMA (16 U.S.C. 1801 et seq.) provides the authority for fishery management in federal waters of the EEZ. 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.

9.1 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, NOAA Fisheries 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.

9.2 Coastal Zone Management Act

Section 307(c)(1) of the federal Coastal Zone Management Act of 1972, as amended, requires that 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, NOAA Fisheries is required to provide a consistency determination to the relevant state agency at least 90 days before taking final action.

The proposed changes in federal regulations regarding permits in the king mackerel fishery and the fishing year for the king and Spanish mackerel fisheries in the Atlantic will make no changes in federal regulations that are inconsistent with the objectives of either existing or proposed state regulations. Consequently, NOAA Fisheries has determined that this plan amendment is consistent with the Coastal Zone Management programs of the states of Alabama, Florida, Louisiana, Mississippi, Texas, Georgia, South Carolina, North Carolina, Virginia, Maryland, Delaware, Pennsylvania, New Jersey, and New York to the maximum extent possible. This determination has been submitted to the responsible state agencies under Section 307 of the CZMA administering approved coastal zone management programs for these states.

9.3 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 Act 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 FMPs and amendments and the use of best available information is the second national standard under the M-SFCMA. To be consistent with the Act, 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 should also undergo quality control prior to being used by the agency and a pre-dissemination review performed. Note that the pre-dissemination review will be performed.

9.4 Endangered Species Act

The Endangered Species Act (ESA) of 1973, as amended, (16 U.S.C. Section 1531 et seq.) requires that federal agencies use their authorities to conserve endangered and threatened species. The ESA requires NOAA Fisheries, 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 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 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.

An informal section 7 consultation was conducted on the original FMP (February, 1983). NOAA Fisheries concluded that the management measures proposed in the GMRFFP were not likely to adversely affect any listed species under the ESA. The consultation, however, did not analyze the effects of the fishery itself.

The effects of the coastal pelagics fishery on endangered and threatened species were first considered in an April 28, 1989 biological opinion, which analyzed the effects of all commercial fishing activities in the Southeast Region as part of a formal Section 7 consultation on NOAA Fisheries' Marine Mammal Authorization Program. The biological opinion concluded that commercial fishing activities in the southeastern United States were not likely to jeopardize the continued existence of threatened or endangered species. The incidental take of ten Kemp's ridley, green, hawksbill, or leatherback sea turtles; 100 loggerhead sea turtles; or 100 shortnose sturgeon was allotted to each fishery identified in the ITS. Pelagic hook-and-line and gill-net fisheries were two of the fisheries identified. The amount of incidental take was later amended by a July 5, 1989, opinion, which reduced the amount of take to only ten documented Kemp's ridley, green, hawksbill, or leatherback sea turtles; 100 loggerhead sea turtles; or 100 shortnose sturgeon for all commercial fishing activities conducted in Atlantic and Gulf of Mexico fisheries combined.

On November 6, 1991, a formal Section 7 consultation on Amendment 6 to the FMP was initiated. The resulting August 19, 1992, opinion on the effects of commercial fishing activities under the Coastal Migratory Pelagic Resources FMP and Amendment 6 found that the regulatory actions were not likely to adversely affect listed species. Additionally, fishing activities conducted under the authority of the FMP may affect, but were not likely to jeopardize, the continued existence of listed sea turtles. An incidental take allowance, with associated reasonable and prudent measures, terms and conditions, and conservation recommendations were issued. Incidental take levels for listed species for all fisheries in the United States established in the July 5, 1989 biological opinion were retained. Nevertheless, consultation was to be reinitiated if the total documented incidental take of Kemp's ridley, green, hawksbill or leatherback turtles meets or exceeds five, or twenty-five loggerhead turtles, for the combined gill-net and hook-and-line fisheries for coastal migratory pelagics. The reasonable and prudent measures to minimize the impacts on listed species by hook-and-line and gill-net fisheries for pelagics included:

1. A regional observer program will be implemented to document incidental injury, and mortality of listed species. With the exception of off bottom trawls, hook-and-line and trap fisheries, all southeast U.S. fisheries need additional investigation. This program should emphasize monitoring of gill-net and longline fisheries where the least amount of information is available and the potential for adverse impacts to sea turtles appears the greatest.

2. Regulations should be promulgated to reduce/eliminate mortalities in any fisheries where the take of endangered and threatened species exceeds levels specified in the Incidental Take Statement.

3. All incidents of take of endangered or threatened species will be reported to NMFS within 10 days of the take. The report shall include a description of the animal's condition at the time of release.

4. Any sea turtle incidentally taken must be handled with due care to prevent injury to live specimens, observed for activity, and returned to the water as provided in 50 CFR Part 227. 72 (e) (1) (I) .

Subsequent consultations conducted on amendments to the CMPR FMP and emergency actions have been informal, finding that the regulatory changes resulting from those actions would not alter the findings under the biological opinion on Amendment 6 to the FMP.

As provided in 50 CFR 402.16, reinitiation of consultation is required if: 1. the amount or extent of taking specified in the incidental take statement is exceeded, 2. new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered, 3 the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion, or 4. a new species is listed, the identified activity is subsequently modified, or critical habitat is designated that may be affected by this activity.

NOAA Fisheries has no data indicating the take specified in the August 20, 1992, incidental take statement has been exceeded. However, over the twelve years that have elapsed since then, new information regarding the status of listed species and the effect actions have on them has become available. Additionally, the fishery for coastal pelagic resources may affect a new species listed as endangered, the smalltooth sawfish. Critical habitat for the northern right whale was also designated after the 1992 consultation (58 FR 28793, June 3, 1994). Based on this information, NOAA Fisheries believes reinitiation of formal consultation is warranted. SERO's SFD will request SERO's PRD conduct a Section 7 consultation under Section 7 of the ESA on the impacts of the actions in this amendment. A biological opinion will be developed for this amendment and will include previous actions under the CMP FMP that have occurred subsequent to the last biological opinion.

9.5 Executive Orders

9.5.1 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 that are 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 amendment given the overlapping authorities of NOAA Fisheries, the States, and local authorities in managing coastal resources, including fisheries, and the need for a clear definition of responsibilities. It is important to recognize those components of the ecosystem over which fishery managers have no direct control and to develop strategies to address them in conjunction with appropriate state, tribes and local entities (international too).

No Federalism issues have been identified relative to the actions proposed in this amendment. Therefore, consultation with state officials under Executive Order 13132 is not necessary.

9.5.2 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, NOAA Fisheries prepares a 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 will have a significant economic impact on a substantial number of small entities in compliance with the RFA. A regulation is significant if it is likely to result in an annual effect on the economy of at least $100,000,000 or has other major economic effects. The actions proposed in this amendment would not have this significance.

9.5.3 E.O. 12630: Takings

The Executive Order on Government Actions and Interference with Constitutionally Protected Property Rights that became effective March 18, 1988, requires that 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. There are no takings implications from the actions proposed in this amendment.

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

This Executive Order requires that federal agencies conduct their programs, policies, and activities in a manner to ensure that individuals or populations are not excluded from participation in, or denied the benefits of, or subjected to discrimination because of their race, color, or national origin. In addition, and specifically with respect to subsistence consumption of fish and wildlife, federal agencies are required to collect, maintain, and analyze information on the consumption patterns of populations who principally rely on fish and/or wildlife for subsistence. Impacts of commercial and recreational fishing on subsistence fishing is a concern in fisheries management; however, there are no such implications from the actions proposed in this amendment.

9.5.5 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 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 NOAA Fisheries and the U.S. Fish and Wildlife Service to develop a joint agency policy for administering the ESA. There are no recreational fishing issues addressed by the actions in this amendment.

9.5.6 E.O. 13084: Consultation and Coordination With Indian Tribal Governments

This Executive Order recognizes and reaffirms the U.S. governments responsibility for continued collaboration and consultation with tribal governments in the development of federal policies that have tribal implications. This Order relates to indigenous fishing. There are no indigenous fishing rites associated with this amendment or the CMP FMP, as amended.

9.5.7 E.O. 13089: Coral Reef Protection

The Executive Order on Coral Reef Protection requires federal agencies whose actions may affect U.S. coral reef ecosystems to identify those actions, utilize their programs and authorities to protect and enhance the conditions of such ecosystems; and, to the extent permitted by law, ensure that actions that they authorize, fund or carry out do not degrade the condition of that ecosystem. By definition, a U.S. coral reef ecosystem means those species, habitats, and other national resources associated with coral reefs in all maritime areas and zones subject to the jurisdiction or control of the United States (e.g., federal, state, territorial, or commonwealth waters). There are no implications to coral reefs by any of the actions proposed in this amendment because CMP fishing occurs near the surface.

9.5.8 E.O. 13158: Marine Protected Areas

Executive Order 13158 requires federal agencies to consider whether their proposed action(s) will affect any area of the marine environment that has been reserved by federal, state, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural or cultural resource within the protected area. The broad definition of MPAs will include many sites in the U.S. EEZ as part of the National MPA System. This amendment would have no impacts to MPAs.

9.5.9 E.O. 13186: Responsibilities of Federal Agencies to Protect Migratory Birds

Executive Order 13186 directs each federal agency taking actions that have, or are likely to have, a measurable negative effect on migratory bird populations to develop and implement a memorandum of understanding (MOU) with the (USFWS) to conserve those bird populations. The MOU will address actions taken by NOAA Fisheries that have, or are likely to have, a measurable negative effect on migratory bird populations. In the instance of unintentional take of migratory birds, NOAA Fisheries would develop and use principles, standards, and practices that will lessen the amount of unintentional take in cooperation with the USFWS. Additionally, the MOU would ensure that NEPA analyses evaluate the effects of actions and agency plans on migratory birds, with emphasis on species of concern.

The required MOU is currently being developed, which will address the incidental take of migratory birds in commercial fisheries under the jurisdiction of NOAA Fisheries. NOAA Fisheries must monitor, report, and take steps to reduce the incidental take of seabirds that occurs in fishing operations. The United States has already developed the U.S. National Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries, and many potential MOU components are already being implemented under that plan. Development of the plan was a collaborative effort between NOAA Fisheries, USFWS, and the Department of State, carried out in large part by the Interagency Seabird Working Group consisting of representatives from those three agencies. This amendment would not cause any interactions with migratory birds.

9.6 Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) of 1972, as amended, established a moratorium, with certain exceptions, on the taking of marine mammals in U.S. waters and by U.S. citizens on the high

seas, and on the importing of marine mammals and marine mammal products into the United States. Under the MMPA, the Secretary of Commerce (authority delegated to NOAA Fisheries) is responsible for the conservation and management of cetaceans and pinnipeds (other than walruses). The Secretary of the Interior is responsible for walruses, sea and marine otters, polar bears, manatees, and dugongs.

Part of the responsibility that NOAA Fisheries has under the MMPA involves monitoring populations of marine mammals to make sure that they stay at optimum levels. If a population falls below its optimum level, it is designated as "depleted," and a conservation plan is developed to guide research and management actions to restore the population to healthy levels.

In 1994, Congress amended the MMPA, to govern the taking of marine mammals incidental to commercial fishing operations. This amendment required the preparation of stock assessments for all marine mammal stocks in waters under U.S. jurisdiction, development and implementation of take~reduction plans for stocks that may be reduced or are being maintained below their optimum sustainable population levels due to interactions with commercial fisheries, and studies of pinniped-fishery interactions.

Under Section 118 of the MMPA, NOAA Fisheries must publish, at least annually, a List of Fisheries (LOF) that places all U.S. commercial fisheries into one of three categories: (1) Frequent (Category I), (2) occasional (Category II), or (3) remote (Category III) based on the level of incidental, serious injury and mortality of marine mammals that occurs in each fishery. The categorization of a fishery in the LOF determines whether participants in that fishery may be required to comply with certain provisions of the MMPA, such as registration, observer coverage, and take reduction plan requirements. The Southeast Atlantic gill-net fishery (i.e., the Florida East Coast king and Spanish mackerel gill-net fishery and the Southeast U.S. Atlantic coastal shad gill-net fishery) and the Gulf of Mexico gill-net fishery (i.e., the Gulf of Mexico king and Spanish mackerel gill-net fishery, the Gulf of Mexico inshore gill-net fishery, and the Gulf of Mexico coastal gill-net fishery) are both listed as a Category II fisheries (69 FR 48407). No changes in these fishery's classification were proposed in the 2004 proposed LOF (69 FR 71, April 13, 2004).

The Southeast Atlantic gill-net fishery is regulated in part under the Atlantic Large Whale Take Reduction Plan (ALWTRP), which was finalized in 1999. The ALWTRP was developed to reduce the risk of serious injury and mortality of right, humpback, and fin whales from incidental interactions with commercial fisheries. The ALWTRP was modified in 2002 to prohibit straight sets of gill nets at night in the Southeast U.S. Restricted Area [from 32°00'N (near Savannah, Georgia) south to 27°51'N (near Sebastian Inlet, Florida from the shore eastward to 80°00'W] from November 15 through March 31 (67 FR 184, September 23, 2002). The Team was recently reconvened and is currently considering further measures to reduce the interaction of large whales with gill nets.

A Bottlenose Take Reduction Team was convened in November 2001 to reduce the risk of serious injury and mortality of bottlenose dolphins from incidental interactions with commercial fisheries. The team agreed upon consensus recommendations on May 7, 2002, with addendum's in April 2003. A draft plan and proposed rule are being prepared, which may include some measures affecting CMP gill-net fisheries in the future (i.e. gear marking).

9.7 National Environmental Policy Act

The NEPA requires all federal actions to be evaluated for potential environmental impacts, and for these impacts to be assessed and reported to the public. As it applies to the formulation of fishery management plans, the NEPA process should ensure that the potential environmental ramifications of actions determined necessary to manage a fishery are fully considered through the development

and analysis of a range of reasonable alternatives. Thus, proposed regulations that may set size or bag limits, limit the number of permits or vessels, quotas, allowable gears, closed seasons or areas, and any other measures are reviewed for potential affects on the broader marine environment, in addition to its affect on the specific fishery being managed.

The Councils may initially conduct an Environmental Assessment (EA), which is a concise statement that determines whether the FMP (and subsequently any proposed amendment) will have a significant impact on the environment. If there is no potential significant impact, a "Finding of No Significant Impact," or FONSI, is issued. Because the actions proposed in this amendment only maintain a cap on the current level of commercial king mackerel permits that are allowed in the fishery; and change the fishing year without changing harvest levels, there are no significant impacts that would require the preparation of a SEIS. Consequently, this document includes an EA with a FONSI.

9.8 Migratory Bird Treaty Act

Under the Migratory Bird Treaty Act (MBTA), it is unlawful to pursue, hunt, take, capture, kill, possess, trade, or transport any migratory bird, or any part, nest, or egg of a migratory bird, included in treaties between the United States and Great Britain, Mexico, Japan, or the former Union of Soviet Socialists Republics, except as permitted by regulations issued by the Department of the Interior. Violations of the MBTA carry criminal penalties; any equipment and means of transportation used in activities in violation of the MBTA may be seized by the United States government and, upon conviction, must be forfeited to it. To date, the MBTA has been applied to the territory of the United States and coastal waters extending three miles from shore. Furthermore, Executive Order 13186 (see Section 9.5.9) was issued in 2001, which directs federal agencies, including NOAA Fisheries, to take certain actions to further implement the MBTA. Actions proposed in this amendment would have no implications to the MBTA because fishing for CMP species does not impact migratory birds.

9.9 National Marine Sanctuaries Act

Under the National Marine Sanctuaries Act (NMSA) (also known as Title III of the Marine Protection, Research and Sanctuaries Act of 1972), as amended, the Secretary of Commerce is authorized to designate National Marine Sanctuaries to protect distinctive natural and cultural resources whose protection and beneficial use requires comprehensive planning and management. The National Marine Sanctuary Program is administered by the Sanctuaries and Reserves Division of the NOAA. The Act provides authority for comprehensive and coordinated conservation and management of these marine areas. The National Marine Sanctuary Program currently includes 13 sanctuaries around the country, including sites in American Samoa and Hawaii. These sites include significant coral reef and kelp forest habitats, and breeding and feeding grounds of whales, sea lions, sharks, and sea turtles. A complete listing of the current sanctuaries and information about their location, size, characteristics, and affected fisheries can be found at http://www.sanctuaries.nos.noaa.gov/oms/oms.html. The actions proposed in this amendment would have no impact to any national marine sanctuaries because they only involve commercial permits and changes to the fishing season for king mackerel and king and Spanish mackerel, respectively.

9.10 Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.) regulates the collection of public information by federal agencies to ensure that the public is not overburdened with information requests, that the federal government's information collection procedures are efficient, and that federal agencies adhere to appropriate rules governing the confidentiality of such information. The

PRA requires NOAA Fisheries to obtain approval from the Office of Management and Budget before requesting fishery information from the public.

If the moratorium on issuance of new commercial king mackerel permits is discontinued, additional paperwork would ensue for both the new permittees in the form of applications and through issuance of such permits. However, since lifting the moratorium is not the preferred alternative, the number of permits that are issued would remain the same or perhaps be reduced under the preferred alternative due to attrition. While no changes from the current requirements would occur, it is likely that data will still need to be collected that requires clearance under this act.

9.11 Regulatory Flexibility Act

The RFA of 1980 (5 U.S.C. 601 et seq.) requires federal agencies to assess the impacts of regulatory actions implemented through notice and comment rulemaking procedures on small businesses, small organizations, and small governmental entities, with the goal of minimizing adverse impacts of burdensome regulations and record-keeping requirements on those entities. Under the RFA, NOAA Fisheries must determine whether a proposed fishery regulation will have a significant economic impact on a substantial number of small entities. If not, a certification to this effect must be prepared and submitted to the Chief Counsel for Advocacy of the Small Business Administration. Alternatively, if a regulation is determined to significantly impact a substantial number of small entities, the act requires the agency to prepare an initial and final Regulatory Flexibility Analysis to accompany the proposed and final rule, respectively. These analyses, which describe the type and number of small businesses affected, the nature and size of the impacts, and alternatives that minimize these impacts while accomplishing stated objectives, must be published in the *Federal Register* in full or in summary for public comment and submitted to the chief counsel for advocacy of the Small Business Administration. Changes to the RFA in June 1996 enable small entities to seek judicial court review of an agency's compliance with the Act's provisions. The Regulatory Flexibility Act Analysis is included in Section 5.0 herein.

9.12 Small Business Act

The Small Business Act of 1953, as amended, Section 8(a), 15 U.S.C. 634(b)(6), 636(j), 637(a) and (d); Public Laws 95-507 and 99-661, Section 1207; and Public Laws 100-656 and 101-37 are administered by the Small Business Administration. The objectives of the act are to foster business ownership by individuals who are both socially and economically disadvantaged; and to promote the competitive viability of such firms by providing business development assistance including, but not limited to, management and technical assistance, access to capital and other forms of financial assistance, business training and counseling, and access to sole source and limited competition federal contract opportunities, to help the firms to achieve competitive viability. Because most businesses associated with fishing are considered small businesses, NOAA Fisheries, in implementing regulations, must make an assessment of how those regulations will affect small businesses. Implications to small businesses are discussed in the RIR herein.

9.13 Essential Fish Habitat

The amended M-SFCMA included new EFH requirements, and as such, each existing, and any new, FMPs must describe and identify EFH for the fishery, minimize to the extent practicable adverse effects on that EFH caused by fishing, and identify other actions to encourage the conservation and enhancement of that EFH. In 1999, a coalition of several environmental groups brought suit challenging the agency's approval of the EFH FMP amendments prepared by the Gulf of Mexico, Caribbean, New England, North Pacific, and Pacific Fishery Management Councils (American Oceans Campaign et al. v. Daley et al., Civil Action No. 99-982(GK)(D.D.C. September 14, 2000). The court found that the agency's decisions on the EFH amendments were in accordance with the

M-SFCMA, but held that the EAs on the amendments were in violation of the NEPA and ordered NOAA Fisheries to complete new, more thorough NEPA analyses for each EFH amendment in question.

Consequently, NOAA Fisheries entered into a Joint Stipulation with the plaintiff environmental organizations that called for each affected Council to complete EISs rather than EAs for the action of minimizing adverse effects of fishing to the extent practicable on EFH. See AOC v.Evans/Daley et al., Civil No. 99-982 (GK)(D.D.C. December 5, 2001). However, because the court did not limit its criticism of the EAs to only efforts to minimize adverse fishing effects on EFH, it was decided that the scope of these EISs should address all required EFH components as described in Section 303 (a)(7) of the M-SFCMA. The SAFMC's EFH amendment was not challenged.

To address these requirements the GMFMC has, under separate action, drafted an EIS to analyze within each fishery a range of potential alternatives to: (1) describe and identify EFH for the fishery; (2) identify other actions to encourage the conservation and enhancement of such EFH; and (3) identify measures to minimize to the extent practicable the adverse effects of fishing on such EFH. Depending on the preferred alternatives identified in this EIS the Gulf Council FMPs may require amendments to comply with the guidelines articulated in the EFH Final Rule to implement the EFH provisions of the M-SFCMA (See 50 CFR Part 600, Subpart J). NOAA Fisheries published the Draft EIS on August 29, 2003, and a Record of Decision was published in the *Federal Register* on July 29, 2004. There are no implications to EFH in this amendment as discussed in the FONSI.

10.0 REFERENCES

Brooks, E. N. and M. Ortiz. 2004. Estimated von Bertalanffy growth curves for king mackerel stocks in the Atlantic and Gulf of Mexico. SFD-2004-00#. National Marine Fisheries Service, Southeast Fisheries Science Center, Sustainable Fisheries Division, 75 Virginia Beach Drive, Miami, Florida 33149. 24 pp.

Collette, B.B., and J.L. Russo. 1979. An introduction to the Spanish mackerels, genus Scomberomorus. In: Nakamura and Bullis (eds.), Proceedings: Colloquium on the Spanish and king mackerel resources of the Gulf of Mexico. Gulf States Marine Fisheries Commission, No. 4. p. 3-16.

Easley, J.E., C. Adams, W. N. Thurman, and J. Kincaid. 1993. The derived demand for commercially harvested Gulf and South Atlantic king mackerel: partial and general equilibrium, a project report to the Gulf of Mexico Fishery Management Council, March 29, 1993. 42 pp. + appendices.

GMFMC/SAFMC. 1985. Amendment 1 to the fishery management plan for coastal migratory pelagic resources (mackerels) with environmental impact statement. Gulf of Mexico Fishery Management Council, 3018 U.S. Highway 301, North, Suite 1000, Tampa, Florida 33619-2266.

Mahmoudi, B. Personal communication. Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute, 100 Eighth Avenue, Southeast, St. Petersburg, Florida 33701.

Mayo, D.A. 1973. Rearing, growth, and development of the eggs and larvae of seven scombrid fishes from the Straits of Florida. Ph.D. Dissertation, University of Miami, Coral Gables, Florida. 138 pp.

McEchran, J. D. and J. H. Finucane. 1979. (Abstract). Distribution, seasonality, and abundance of larval king and Spanish mackerels in the northwestern Gulf of Mexico. In: Nakamura and Bullis, (eds), Proceedings: Colloquium on the Spanish and King Mackerel Resources of the Gulf of Mexico. Gulf States Marine Fisheries Commission, No. 4. Gulf States Marine Fisheries Commission, P. O. Box 726, Ocean Springs, Mississippi 39566. p. 59.

Mackerel Stock Assessment Panel (MSAP). 2003. "2003 report of the Mackerel Stock Assessment Panel." Prepared by the MSAP at the panel meeting held May 19-21, 2003, GMFMC, The Commons at Rivergate, 3018 U.S. Highway 301 North, Suite 1000, Tampa, FL 33619-2266 and SAFMC, Southpark Building, Suite 306, 1 Southpark Circle, Charleston, SC 29407-4699,, September 2, 2003. 37 pp.

MSAP. 1996. 1996 report of the mackerel stock assessment panel. Gulf of Mexico Fishery Management Council, 3018 U.S. Highway 301, North, Suite 1000, Tampa, Florida 33619-2266.

NMFS. Unpublished data1. Landings of Spanish mackerel. National Marine Fisheries Service, Southeast Fisheries Science Center, 75 Virginia Beach Drive, Miami, Florida 33149.

NMFS. Unpublished data2. Estimates of fishing mortality for king mackerel in 2003. National Marine Fisheries Service, Southeast Fisheries Science Center, 75 Virginia Beach Drive, Miami, Florida 33149.

NMFS. 1992. Endangered species act biological opinion on fishing activity under the coastal migratory pelagics fishery management plan and amendment 6. National Marine Fisheries

Service, Southeast Regional Office, 9721 Executive Center Drive, North, St. Petersburg, Florida. 22 pp.

Ortiz, M. 2004. Stock assessment analysis on Gulf of Mexico king mackerel. SFD-2004-04. National Marine Fisheries Service, Southeast Fisheries Science Center, Sustainable Fisheries Division, 75 Virginia Beach Drive, Miami, Florida 33149. 43 pp.

Poffenberger, J. 2004. A report on the discard data from the Southeast Fisheries Science Center's coastal fisheries logbook program. NMFS, SEFSC, SFD, 75 Virginia Beach Drive, Miami, Florida 33149. SFD-2004-003. 16 pp.

Powel, D. 1975. Age, growth, and reproduction in Florida stocks of Spanish mackerel, *Scomberomorus maculatus*. Florida Marine Research Publication No. 5. 21 pp.

Schekter, R.C. 1971. Food habits of some larval and juvenile fishes from the Florida current near Miami, Florida. MS Thesis, University of Miami, Coral Gables. 85 pp.

SEDAR 5. 2004a. Stock assessment workshop report. Gulf of Mexico Fishery Management Council/South Atlantic Fishery Management Council. Available from, Gulf of Mexico Fishery Management Council, 3018 U.S. Highway 301, North, Tampa, Florida 33619. 108 pp.

SEDAR 5. 2004b. Stock assessment review workshop report. Gulf of Mexico Fishery Management Council/South Atlantic Fishery Management Council. Available from, Gulf of Mexico Fishery Management Council, 3018 U.S. Highway 301, North, Tampa, Florida 33619. 19 pp.

SFD. 2003. Stock assessment analysis of Spanish and king mackerel stocks. SFD-2003-0008. National Marine Fisheries Service, Southeast Fisheries Science Center, Sustainable Fisheries Division, 75 Virginia Beach Drive, Miami, Florida 33149. 108 pp.

Trent, L., D. E. Parshley and J.K. Carlson. 1997. Catch and bycatch in the shark drift gill-net fishery off Georgia and east Florida. Marine Fisheries Review, 59 (1):19-28.

Vondruska, J. 1998. Description of boats with federal fishing permits in 1997. NMFS, Fisheries Economics Office, 9721 Executive Center Drive, North, St. Petersburg, FL 33702-2432, SERO-ECON-98-14, March 5, 1998. 46 pp.

Vondruska, J. 1999. An analysis of the demand for king mackerel. NMFS, Fisheries Economics Office, 9721 Executive Center Drive, North, St. Petersburg, FL 33702-2432, SERO-ECON-99-07, April 13, 1999.

Vondruska, J. and W. O. Antozzi. 1999. U.S. markets and trade in king mackerel and other large mackerel. NMFS, Fisheries Economics Office, 9721 Executive Center Drive, North, St. Petersburg, FL 33702-2432, SERO-ECON-99-08, April 13, 1999.

Vondruska, J. 2000. "Commercial landings update: coastal migratory pelagic fish." NMFS, Fisheries Economics Office, 9721 Executive Center Drive, North, St. Petersburg, FL 33702-2432, SERO-ECON-00-13, April 7, 2000.

Ward, J. M. and J. G. Sutinen. 1994. Vessel entry-exit behavior in the Gulf of Mexico shrimp fishery, American Journal of Agricultural Economics. 76 (November 1994). p. 916-923.

Wollam, M.G. 1970. Description and distribution of larvae and early juveniles of king mackerel, *Scomberomorus cavalla* (Cuvier), and Spanish mackerel, *Scomberomorus maculatus* (Mitchell);

(Pisces: Scombridae) in the western North Atlantic. Florida Department of Natural Resources, Marine Research Laboratory, Technical Series, No. 61. 35 pp.

11.0 PUBLIC REVIEW

Partial List of Organizations Consulted:

- Concerned Fishermen of Florida
- Organized Fishermen of Florida
- Monroe County Commercial Fishermen, Inc.
- Coastal Conservation Association
- Southeast Fisheries Association

Public hearing locations and summaries are presented in Appendix B.

12.0 LIST OF PREPARERS

This document was prepared by the Gulf of Mexico Fishery Management Council, the South Atlantic Fishery Management Council, and National Marine Fisheries Service staff. The primary staff members responsible for compiling this document are:

Gulf of Mexico Fishery Management Council
- Dr. Richard Leard, Senior Fishery Biologist

South Atlantic Fishery Management Council
- Dr. Kathi Kitner, Cultural Anthropologist

National Marine Fisheries Service, Southeast Regional Office
-Dr. Steve Branstetter, Sustainable Fisheries
-Heather Blough, Sustainable Fisheries
-Dr. Palma Ingles, Fisheries Economics
-Jennifer Lee, Protected Resources
-David Dale, Habitat Conservation
-Dr. John Vondruska, Fisheries Economics
-Andy Strelcheck, Sustainable Fisheries

National Oceanic and Atmospheric Administration, Office of General Counsel
-Shepherd Grimes

13.0 LIST OF AGENCIES CONSULTED

Coastal Zone Management Offices

Alabama, Mississippi, Louisiana, Florida, Georgia, South Carolina, North Carolina, Texas, Virginia, Maryland, Delaware, Pennsylvania, New Jersey, and New York

Other Agencies, Organizations, and Persons

Alabama Cooperative Extension Service
Alabama Department of Conservation and Natural Resources, Marine Resources Division
Florida Department of Environmental Protection
Florida Fish and Wildlife Conservation Commission
Florida Sea Grant
Louisiana Cooperative Extension Service
Louisiana Department of Wildlife and Fisheries
Mississippi Cooperative Extension Service
Mississippi Department of Marine Resources
National Marine Fisheries Service Southeast Regional Office
National Marine Fisheries Service Southeast Fisheries Science Center
National Marine Fisheries Service Washington Office

National Marine Fisheries Service Law Enforcement
Texas Cooperative Extension Service
Texas Parks and Wildlife Department
United States Fish & Wildlife Service
United States Coast Guard

14.0 RESPONSIBLE AGENCIES

Gulf of Mexico Fishery Management Council
South Atlantic Fishery Management Council
Mid-Atlantic Fishery Management Council
National Marine Fisheries Service

15.0 TABLES

Table 1. NMFS southeast coastal fisheries logbook-reported and other data for vessels with valid federal permits for commercial fishing for king mackerel (KM) (1)

Year	Vessels with KM permits, July 15	Annual totals, vessels with KM permits & KM landings			Per-vessel medians (50th percentiles), vessels with KM permits and KM landings						
		Vessels	KM, thousand pounds landed	Gross revenue, all fish, thousand 001 $	KM, pounds landed per year	Gross rev., all fish, 2001 $ per year	% gross rev. from KM	Vessel length, feet	Trips per year, landed KM	Trips per year, all fish	Days away from port per year, all fish
1998	2,172	1,066	4,852	$31,983	941	$11,267	22%	31	6	20	34
1999	2,057	1,078	5,343	$33,129	1,245	$12,183	28%	31	6	20	31
2000	1,957	1,072	4,370	$33,173	1,111	$11,163	27%	31	6	21	31
2001	1,861	1,023	4,490	$32,083	1,207	$11,269	30%	31	7	21	33
2002	1,792	1,012	4,052	$34,741	1,112	$11,908	24%	31	7	22	33
2003	1,740	951	4,506	$28,692	1,324	$10,663	33%	31	7	21	33
Total (2)			27,614	$193,800							

(1) The numbers of vessels are for vessels that had valid federal permits for commercial fishing for king mackerel on July 15 of each calendar year shown. Landings, revenue, trips and days away from port are for the entire year, and these indicators of commercial fishing activity begin with a data selection process that includes logbook-reported observations with landings of at least 1 pound of fish. Estimated gross revenue is for landings during a calendar year of all logbook-reported trips and fish (regardless of species, gear, area of capture and/or port of landing), and is expressed in 2001 dollars. The dollar values were obtained using trip level logbook-reported pounds landed by species and prices by species computed from monthly data in the NMFS, SEFC Accumulated Landings System (ALS). The dollar values were computed in an interative process going from more to less aggregated breakouts, starting with breakouts by species, state, county, year and month. Values in 2001 dollars were obtained using the Bureau of Labor Statistics Producer Price Index for all commodities as a deflator to remove the effects of general price inflation at the producer level in the U.S. economy. Revised 06 May 2004.

(2) The 6-year total for gross revenue for all fish, $193.800 million in 2001 dollars, includes $40.342 million for king mackerel as shown by year in Table 5.

Table 2. Landings of king mackerel, by region and state
thousand pound, round weight, calendar year
Source: NMFS, SEFC and NMFS, NEFC
NE: Maine-Virginia. Data for subject to revision.
Data not complete for 2003.

Year	Atlantic coast (ME - Fl ec)					Gulf of Mexico			
	NE	NC	SC-GA	FL ec	Region total	FL wc	AL-TX	Region total	Total
1962	8	49	4	2076	2136	2021	.	2021	4157
1963	10	53	5	2173	2241	2817	.	2817	5058
1964	37	89	1	2020	2146	1314	.	1314	3460
1965	6	139	.	2549	2694	1898	.	1898	4593
1966	7	95	4	1782	1887	2633	.	2633	4520
1967	3	24	.	2988	3015	3084	.	3084	6099
1968	3	8	0	2586	2597	3604	.	3604	6201
1969	2	16	2	2943	2962	3242	.	3242	6204
1970	5	12	1	4338	4357	2372	.	2372	6729
1971	7	9	7	2907	2930	2738	.	2738	5667
1972	2	.	.	3489	3491	1378	.	1378	4869
1973	8	.	.	3712	3720	2217	.	2217	5937
1974	15	.	.	4267	4283	6134	.	6134	10416
1975	14	.	.	3697	3711	2622	.	2622	6333
1976	18	.	.	4821	4838	2801	.	2801	7640
1977	18	245	11	3915	4189	5217	.	5217	9406
1978	9	172	48	3402	3631	1745	0	1746	5376
1979	11	382	96	3346	3835	1691	0	1691	5526
1980	20	769	224	3073	4087	3002	.	3002	7088
1981	3	736	146	4858	5743	3073	.	3073	8816
1982	13	1207	191	4647	6058	1968	229	2197	8255
1983	6	843	180	3108	4138	1340	1492	2832	6969
1984	3	758	176	2437	3373	1095	752	1847	5220
1985	6	833	178	2636	3654	768	976	1744	5398
1986	4	1006	297	2421	3728	1707	338	2044	5772
1987	12	1349	200	2573	4133	543	535	1078	5211
1988	15	886	154	2461	3517	577	463	1040	4557
1989	8	720	183	1801	2713	286	658	944	3657
1990	16	1131	179	1881	3207	1012	639	1651	4858
1991	22	1103	290	1641	3056	412	584	996	4052
1992	31	1035	269	1413	2748	1109	1143	2252	5000
1993	4	888	172	1614	2679	2089	902	2991	5670
1994	4	850	99	1557	2511	912	884	1796	4307
1995	6	1013	94	1618	2731	1175	759	1934	4665
1996	5	794	99	1817	2715	1684	737	2421	5136
1997	16	1559	69	2537	4180	1193	794	1987	6166
1998	5	1143	78	2023	3249	1349	1173	2522	5771
1999	5	1083	75	2036	3199	1765	1091	2856	6055
2000	9	1047	83	1837	2975	1127	1032	2159	5134
2001	1	832	49	1789	2671	1395	880	2275	4945
2002	1	762	36	1644	2443	1201	979	2180	4623
2003	4	764	12	739	1519	987	1000	1987	3506

“.” No landings reported. Landings may not have been broken out by species for some states and gear prior to the mid-1980s, such as for king mackerel in the South Atlantic states NC, SC and GA in 1972-1976.

Table 3. Landings of Spanish mackerel, region and state
thousand pound, round weight, calendar year
Source: NMFS, SEFC, Accumulated Landings System
NE: Maine-Virginia. Data for subject to revision

Spanish mackerel

Year	Atlantic coast (ME - Fl ec)					Gulf of Mexico			
	NE	NC	SC-GA	FL ec	Region total	FL wc	AL-TX	Region total	Total
1962	15	83	14	2578	2690	6869	42	6911	9601
1963	79	135	9	2123	2347	5405	42	5447	7794
1964	33	78	3	2002	2116	3880	76	3956	6072
1965	75	117	14	2901	3107	4883	22	4906	8012
1966	142	79	3	2181	2405	7004	62	7066	9471
1967	30	73	5	1802	1909	5867	109	5976	7885
1968	60	69	9	4407	4545	7066	166	7231	11776
1969	124	89	4	2359	2576	8175	168	8342	10918
1970	202	63	2	3574	3842	8100	198	8298	12140
1971	52	95	4	2582	2733	7383	275	7658	10391
1972	23	.	.	3369	3392	6532	690	7222	10615
1973	50	.	.	3203	3253	6194	263	6458	9711
1974	26	.	.	2346	2372	8267	287	8554	10926
1975	68	.	.	5145	5213	5621	516	6138	11350
1976	82	.	.	9589	9671	7783	558	8341	18012
1977	22	46	2	10987	11057	2393	243	2636	13693
1978	2	40	1	5510	5553	1600	105	1705	7258
1979	1	13	2	4886	4901	1946	176	2122	7023
1980	9	75	8	9811	9904	1769	182	1951	11855
1981	5	52	1	4174	4231	3550	159	3709	7940
1982	14	189	2	3759	3964	3287	168	3456	7419
1983	9	41	1	5947	5999	2087	179	2266	8265
1984	10	127	1	2397	2537	3476	30	3506	6043
1985	15	173	1	3245	3434	2915	107	3023	6457
1986	174	232	8	4003	4417	2577	161	2738	7155
1987	321	504	1	3497	4323	2665	191	2855	7178
1988	335	438	2	3072	3847	2138	178	2316	6163
1989	422	589	2	2853	3866	2991	127	3119	6985
1990	586	839	1	1979	3405	2385	194	2579	5984
1991	766	859	1	2987	4612	3262	180	3442	8054
1992	396	738	2	2023	3159	3564	209	3773	6932
1993	1	590	1	3892	4483	2475	147	2623	7106
1994	529	531	0	3100	4160	2418	361	2779	6940
1995	196	402	0	3065	3663	1159	397	1556	5219
1996	345	402	0	2245	2992	409	254	663	3655
1997	211	767	0	2269	3247	220	354	574	3821
1998	185	372	0	2498	3056	248	222	470	3526
1999	341	459	0	1530	2330	723	249	972	3302
2000	255	659	0	1668	2582	714	396	1110	3692
2001	244	653	0	2116	3014	879	517	1396	4410
2002	154	698	0	1993	2845	191	775	966	3811
2003	121	455	.	1361	1938	645	867	1511	3449

“.” No landings reported. Landings may not have been broken out by species for some states and gear prior to the mid-1980s, such as for Spanish mackerel in the South Atlantic states NC, SC and GA in 1972-1976.

Table 4. Landings of Atlantic migratory group king and Spanish mackerel,
by fishing year and month, thousands of pounds, round weight
Data for 2002/2003 onward is preliminary or not complete

Atlantic migratory group Spanish mackerel

Fishing year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
1981/1982	11	4	19	32	37	47	107	165	2073	229	166	2171	5059
1982/1983	73	18	42	39	70	137	97	80	842	3463	65	25	4950
1983/1984	96	7	16	24	28	52	77	333	1807	679	328	765	4213
1984/1985	14	5	16	19	108	44	15	86	456	729	1490	218	3201
1985/1986	13	20	19	28	40	37	69	59	713	1236	1789	131	4154
1986/1987	36	36	101	97	123	81	95	71	620	1160	106	37	2563
1987/1988	59	44	198	206	159	158	157	50	1967	3	73	403	3475
1988/1989	64	39	110	215	137	181	186	130	2295	92	54	18	3521
1989/1990	63	87	260	253	93	70	347	182	2326	77	93	90	3941
1990/1991	140	122	377	259	178	307	223	243	1285	293	63	45	3535
1991/1992	105	216	294	268	237	391	319	239	2113	141	226	159	4707
1992/1993	120	146	199	205	185	255	286	71	1164	427	364	293	3714
1993/1994	159	113	100	78	106	147	246	178	2352	411	531	390	4811
1994/1995	138	39	168	267	193	300	203	51	1465	1399	906	125	5254
1995/1996	51	36	107	120	70	175	149	212	300	238	295	81	1834
1996/1997	105	43	154	138	182	102	266	128	1257	405	188	129	3098
1997/1998	157	67	165	115	163	283	408	562	606	309	123	99	3057
1998/1999	68	68	86	76	64	132	465	838	727	272	332	144	3272
1999/2000	82	84	148	184	145	124	277	329	208	380	254	121	2334
2000/2001	59	104	109	101	192	219	423	364	243	455	280	244	2794
2001/2002	42	108	219	100	153	201	313	271	604	589	221	213	3035
2002/2003	29	76	118	78	192	189	331	347	462	812	358	181	3172
2003/2004	12	102	69	82	139	57	124	1	1	.	.	.	586
Total	1695	1584	3092	2982	2994	3691	5184	4991	25885	13796	8304	6083	80280

Atlantic migratory group king mackerel

Fishing year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
1981/1982	258	436	159	204	415	172	379	216	28	6	2	10	2285
1982/1983	436	1075	174	363	573	247	392	333	154	6	5	5	3764
1983/1984	219	670	196	87	232	193	254	286	118	11	8	51	2326
1984/1985	145	316	137	112	341	267	234	183	85	5	5	30	1861
1985/1986	291	734	135	223	252	91	143	364	70	30	14	43	2389
1986/1987	326	576	127	253	441	318	340	176	96	15	12	96	2776
1987/1988	418	651	275	330	352	337	398	408	56	54	32	87	3397
1988/1989	816	788	140	128	308	246	248	232	36	39	34	27	3042
1989/1990	468	551	146	222	370	101	187	219	53	21	10	218	2566
1990/1991	455	498	155	140	223	181	175	331	48	197	72	95	2568
1991/1992	336	378	120	157	240	171	274	256	139	116	94	127	2408
1992/1993	359	221	198	127	157	167	270	206	131	120	129	83	2169
1993/1994	325	521	112	119	187	85	163	222	42	52	49	99	1975
1994/1995	398	370	138	115	165	135	198	151	144	127	30	176	2146
1995/1996	263	372	151	110	81	55	224	223	151	87	37	53	1808
1996/1997	419	410	209	105	202	91	258	242	61	12	174	467	2650
1997/1998	425	522	165	171	206	107	312	346	91	103	36	134	2616
1998/1999	410	303	160	156	143	112	289	489	72	242	61	80	2518
1999/2000	372	448	144	109	150	70	124	261	261	118	60	89	2207
2000/2001	333	332	162	144	178	101	281	335	51	36	72	45	2068
2001/2002	340	295	158	171	172	91	170	170	176	53	61	129	1987
2002/2003	294	236	104	131	116	58	203	224	77	36	30	177	1687
2003/2004	128	12	15	16	16	7	72	269	80	.	.	.	614
Total	8235	10714	3480	3690	5523	3400	5588	6142	2221	1485	1027	2323	53827

Table 5. NMFS southeast coastal fisheries logbook-reported and other data for trips by vessels with valid federal permits for commercial fishing for king mackerel (KM) (1)

Year	Vessels with KM permits and KM landings	Annual totals, trips with KM landings by vessels with KM permits				Per-trip medians (50th percentiles), trips with KM landings by vessels with KM permits				
		Number of trips	KM, thousand pounds landed	Gross revenue, KM, thousand 2001 $	Gross revenue, all fish, thousand 2001 $	KM, pounds landed	Gross rev., KM, 2001 $	Gross rev., all fish, 2001 $	Crew (including captain)	Days away from port
1998	1066	14,779	4,852	$6,850	$11,508	105	$178	$308	1	1
1999	1078	14,907	5,343	$7,364	$12,030	128	$213	$355	1	1
2000	1072	15,752	4,370	$6,765	$12,399	107	$181	$311	1	1
2001	1023	15,649	4,490	$6,710	$11,664	108	$181	$296	1	1
2002	1012	14,511	4,052	$6,462	$11,866	98	$173	$302	1	1
2003	951	15,077	4,506	$6,190	$9,574	134	$194	$278	1	1
Total (2)		90,715	27,614	$40,342	$69,041					

(1) The numbers of vessels are for vessels that had valid federal permits for commercial fishing for king mackerel on July 15 of each calendar year shown. Estimated gross revenue is for landings during a calendar year of all logbook-reported fish (regardless of species, gear, area of capture and/or port of landing), expressed in 2001 dollars, on trips with landings of king mackerel. The estimated dollar values were obtained as explained in footnote 1, Table 1.

(2) The 6-year total for gross revenue for all fish, $69.041 million in 2001 dollars, is for all fish on trips with king mackerel landings and includes $40.342 million for king mackerel. The 6-year total for gross revenue for all fish in Table 1, $193.800 million 2001 dollars, includes the estimated value of all logbook-reported fish (regardless of species, gear, area of capture and/or port of landing) for all trips, not just the trips with king mackerel landings.

Table 6. Vessels with permits for commercial fishing for king mackerel and NMFS southeast coastal fisheries logbook-reported landings of king mackerel (KM), 1998-2003 (1)

Number years with the specified landings of KM	Number of vessels that landed 1 pound or more of KM per year for the number years in column 1		Number of vessels that landed 100 pounds or more of KM per year for the number years in column 1		Number of vessels that landed 500 pounds or more of KM per year for the number years in column 1		Number of vessels that landed 1000 pounds or more of KM per year for the number years in column 1		Number of vessels that landed 5000 pounds or more of KM per year for the number years in column 1	
		Cumulative		Cumulative		Cumulative		Cumulative		Cumulative
6 years	357	357	269	269	194	194	163	163	70	70
5 years	189	546	159	428	123	317	85	248	44	114
4 years	166	712	149	577	113	430	104	352	26	140
3 years	176	888	141	718	144	574	108	460	56	196
2 years	209	1097	203	921	175	749	166	626	89	285
1 year	237	1334	271	1192	252	1001	240	866	154	439

(1) The vessels counted in the table are among the 1734 vessels with active and inactive permits for commercial fishing for king mackerel as of 6 February 2004, only 1334 of which had landings of one pound or more of king mackerel in at least 1 of the 6 years 1998-2003. The data set contains 2327 vessels, exclusive of duplication. Based on the most recent administrative entry for each vessel, 199 of the 2327 vessels had retired permits, 381 had transferred permits, and 13 had renewed permits. Among the 1734 vessels with active or inactive permits, 1386 vessels had originally issued permits, and 348 vessels had transferred permits.

Table 7. NMFS southeast coastal fisheries logbook-reported and other data for vessels with valid federal permits for commercial fishing for king mackerel (KM) (1)

State	Annual totals, vessels with KM permits & KM landings			Per-vessel medians (50th percentiles), vessels with KM permits and KM landings						
	Vessels	KM, thousand pounds landed	Gross revenue, all fish, thousand 2001 $	KM, pounds landed per year	Gross rev., all fish, 2001 $ per year	% gross rev. from KM	Vessel length, feet	Trips per year, landed KM	Trips per year, all fish	Days away from port per year, all fish
NC	179	756,134	$4,844	1,617	$41,223	39%	32	9	21	25
SC	41	63,725	$2,172	624	$12,183	2%	31	9	18	58
GA	10	9,222	$1,055	985	$113,493	1%	36	12	19	111
FLec	383	1,726,193	$7,108	2,001	$8,377	66%	26	13	25	30
FLwc	404	897,687	$13,557	372	$10,739	6%	33	3	19	33
AL-LA	75	886,562	$6,422	5,513	$56,996	30%	42	4	25	62
TX	7	28,119	$585	2,909	$43,229	5%	31	1	19	55
All (2)	1072	4,369,852	$33,173	1,111	$11,163	27%	31	6	21	31

(1) The numbers of vessels are for vessels that had valid federal permits for commercial fishing for king mackerel on July 15, 2000. Landings, revenue, trips and days away from port are for the entire year, and these indicators of commercial fishing activity begin with a data selection process that includes logbook-reported observations with landings of at least 1 pound of fish. Estimated gross revenue is for landings during a calendar year of all logbook-reported trips and fish (regardless of species, gear, area of capture and/or port of landing), and is expressed in 2001 dollars. The dollar values were obtained using trip level logbook-reported pounds landed by species and prices by species computed from monthly data in the NMFS, SEFC Accumulated Landings System (ALS). The dollar values were computed in an interative process going from more to less aggregated breakouts, starting with breakouts by species, state, county, year and month. Values in 2001 dollars were obtained using the Bureau of Labor Statistics Producer Price Index for all commodities as a deflator to remove the effects of general price inflation at the producer level in the U.S. economy. Revised 06 May 2004.

(2) Includes data for states other than those shown.

Table 8. NMFS southeast coastal fisheries logbook-reported for vessels with landings of Atlantic migratory group king mackerel (KM) (1)

Fishing year (Apr 1 - Mar 31)	Annual totals, vessels with KM landings					Per-vessel medians (50th percentiles), vessels with KM landings						
	Vessels	Trips	KM, thousand pounds landed	Gross revenue, KM, thousand 2001 $	Gross revenue, all fish, thousand 2001 $	KM, pounds landed per year	Gross rev., all fish, 2001 $ per year	% gross rev. from KM	Vessel length, feet	Trips per year, landed KM	Trips per year, all fish	Days away from port per year, all fish
1998/1999	879	10,619	2,136	$3,718	$19,828	698	$10,269	20%	31	6	19	28
1999/2000	762	9,589	1,997	$3,299	$17,726	734	$11,031	22%	31	7	22	31
2000/2001	745	9,744	1,824	$3,211	$17,589	662	$10,873	20%	30	6	23	32
2001/2002	737	10,264	1,769	$3,055	$17,993	772	$10,635	20%	30	7	23	35
2002/2003	700	8,831	1,443	$2,534	$16,396	655	$10,341	18%	30	6	23	34
Total		49,047	9,169	$15,816	$83,532							

(1) Landings, revenue, trips and days away from port are for the entire year, and these indicators of commercial fishing activity begin with a data selection process that includes logbook-reported observations with landings of at least 1 pound of fish. Estimated gross revenue is for king mackerel or for landings during a fishing year by the same vessels of all logbook-reported trips and fish (regardless of species, gear, area of capture and/or port of landing), and is expressed in 2001 dollars. The dollar values were obtained using trip level logbook-reported pounds landed by species and prices by species computed from monthly data in the NMFS, SEFC Accumulated Landings System (ALS). The dollar values were computed in an interative process going from more to less aggregated breakouts, starting with breakouts by species, state, county, year and month. Values in 2001 dollars were obtained using the Bureau of Labor Statistics Producer Price Index for all commodities as a deflator to remove the effects of general price inflation at the producer level in the U.S. economy.

Table 9. NMFS southeast coastal fisheries logbook-reported for vessels with landings of Atlantic migratory group king mackerel (KM) in North Carolina (1)

Fishing year (Apr 1 - Mar 31)	Annual totals, vessels with KM landings in North Carolina					Per-vessel medians (50th percentiles), vessels with king mackerel landings in North Carolina						
	Vessels	Trips	KM, thousand pounds landed	Gross revenue, KM, thousand 2001 $	Gross revenue, all fish, thousand 2001 $	KM, pounds landed per year	Gross rev., all fish, 2001 $ per year	% gross rev. from KM	Vessel length, feet	Trips per year, landed KM	Trips per year, all fish	Days away from port per year, all fish
1998/1999	247	2,579	980	$1,648	$6,271	954	$14,364	34%	33	7	15	23
1999/2000	217	2,352	808	$1,334	$5,835	1,157	$13,372	27%	34	7	18	26
2000/2001	203	2,370	740	$1,169	$5,240	1,013	$12,734	33%	33	8	17	23
2001/2002	210	2,523	725	$1,206	$5,459	914	$14,810	29%	32	7	19	25
2002/2003	211	1,860	559	$881	$5,076	913	$9,946	30%	32	6	17	20
Total		11,684	3,811	$6,237	$27,881							

(1) Landings, revenue, trips and days away from port are for the entire year, and these indicators of commercial fishing activity begin with a data selection process that includes logbook-reported observations with landings of at least 1 pound of fish. Estimated gross revenue is for landings of king mackerel in North Carolina or for landings during a fishing year by the same vessels of all logbook-reported trips and fish (regardless of species, gear, area of capture and/or port of landing), and is expressed in 2001 dollars. The dollar values were obtained using trip level logbook-reported pounds landed by species and prices by species computed from monthly data in the NMFS, SEFC Accumulated Landings System (ALS). The dollar values were computed in an interative process going from more to less aggregated breakouts, starting with breakouts by species, state, county, year and month. Values in 2001 dollars were obtained using the Bureau of Labor Statistics Producer Price Index for all commodities as a deflator to remove the effects of general price inflation at the producer level in the U.S. economy.

Table 10. NMFS southeast coastal fisheries logbook-reported for vessels with landings of Atlantic migratory group king mackerel (KM) in North Carolina in March (1)

Fishing year (Apr 1 - Mar 31)	Landed king mackerel in March in North Carolina				Same vessels, annual gross revenue, all fish, thousand 2001 $	Per-vessel medians (50th percentiles), vessels with king mackerel landings in North Carolina in March						
	Vessels	Trips	KM, thousand pounds landed	Gross revenue, KM, thousand 2001 $		KM, pounds landed in March	Annual gross rev., all fish, 2001 $ per year	% annual gross rev. from KM landed in March	Vessel length, feet	Trips in March with landings of KM	Trips per year, all fish	Days away from port per year, all fish
1998/1999	49	123	64	$112	$2,277	404	$32,993	6%	35	2	34	47
1999/2000	70	156	73	$119	$2,407	564	$27,404	4%	32	2	32	39
2000/2001	46	118	51	$82	$1,573	1,043	$28,778	7%	32	2	30	44
2001/2002	73	205	126	$212	$2,548	1,034	$27,433	8%	31	3	34	46
2002/2003	67	161	130	$192	$1,866	943	$16,129	14%	31	2	19	35
Total		763	444	$718	$10,671							

(1) Landings, revenue, trips and days away from port are for the entire year, and these indicators of commercial fishing activity begin with a data selection process that includes logbook-reported observations with landings of at least 1 pound of fish. Estimated gross revenue is for landings of king mackerel in North Carolina in March or for landings during a fishing year by the same vessels of all logbook-reported trips and fish (regardless of species, gear, area of capture and/or port of landing), and is expressed in 2001 dollars. The dollar values were obtained using trip level logbook-reported pounds landed by species and prices by species computed from monthly data in the NMFS, SEFC Accumulated Landings System (ALS). The dollar values were computed in an interative process going from more to less aggregated breakouts, starting with breakouts by species, state, county, year and month. Values in 2001 dollars were obtained using the Bureau of Labor Statistics Producer Price Index for all commodities as a deflator to remove the effects of general price inflation at the producer level in the U.S. economy.

Table 11. NMFS southeast coastal fisheries logbook-reported for vessels with landings of Atlantic migratory group Spanish mackerel (SM) (1)

Fishing year (Apr 1 - Mar 31)	Annual totals, vessels with SM landings					Per-vessel medians (50th percentiles), vessels with SM landings						
	Vessels	Trips	SM, thousand pounds landed	Gross revenue, SM, thousand 2001 $	Gross revenue, all fish, thousand 2001 $	SM, pounds landed per year	Gross rev., all fish, 2001 $ per year	% gross rev. from SM	Vessel length, feet	Trips per year, landed SM	Trips per year, all fish	Days away from port per year, all fish
1998/1999	352	3,350	2,357	$1,328	$7,538	302	$11,109	4%	28	4	27	29
1999/2000	379	2,977	1,395	$949	$7,343	269	$10,149	4%	28	3	25	29
2000/2001	353	3,401	1,671	$1,058	$7,446	335	$11,120	4%	26	4	27	32
2001/2002	345	3,323	1,600	$1,063	$7,023	296	$11,035	3%	27	4	29	35
2002/2003	364	3,536	1,745	$1,055	$7,055	241	$9,396	3%	28	4	29	31
Total		16,587	8,770	$5,452	$36,404							

(1) Landings, revenue, trips and days away from port are for the entire year, and these indicators of commercial fishing activity begin with a data selection process that includes logbook-reported observations with landings of at least 1 pound of fish. Estimated gross revenue is for Spanish mackerel or for landings during a fishing year by the same vessels of all logbook-reported trips and fish (regardless of species, gear, area of capture and/or port of landing), and is expressed in 2001 dollars. The dollar values were obtained using trip level logbook-reported pounds landed by species and prices by species computed from monthly data in the NMFS, SEFC Accumulated Landings System (ALS). The dollar values were computed in an interative process going from more to less aggregated breakouts, starting with breakouts by species, state, county, year and month. Values in 2001 dollars were obtained using the Bureau of Labor Statistics Producer Price Index for all commodities as a deflator to remove the effects of general price inflation at the producer level in the U.S. economy.

Table 12. NMFS southeast coastal fisheries logbook-reported for vessels with landings of Atlantic migratory group Spanish mackerel (SM), Florida east coast (1)

Fishing year (Apr 1 - Mar 31)	Annual totals, vessels with SM landings, Florida east coast					Per-vessel medians (50th percentiles), vessels with SM landings, Florida east coast						
	Vessels	Trips	SM, thousand pounds landed	Gross revenue, SM, thousand 2001 $	Gross revenue, all fish, thousand 2001 $	SM, pounds landed per year	Gross rev., all fish, 2001 $ per year	% gross rev. from SM	Vessel length, feet	Trips per year, landed SM	Trips per year, all fish	Days away from port per year, all fish
1998/1999	264	2,770	2,196	$1,203	$5,618	380	$11,340	5%	26	5	20	36
1999/2000	283	2,306	1,197	$825	$4,861	338	$9,339	4%	26	3	19	30
2000/2001	272	2,634	1,387	$841	$5,006	453	$10,854	5%	26	4	20	35
2001/2002	279	2,612	1,340	$846	$4,869	375	$10,635	4%	26	4	16	38
2002/2003	281	2,675	1,399	$766	$5,013	305	$9,731	3%	26	4	17	34
Total		12,997	7,518	$4,481	$25,365							

(1) Landings, revenue, trips and days away from port are for the entire year, and these indicators of commercial fishing activity begin with a data selection process that includes logbook-reported observations with landings of at least 1 pound of fish. Estimated gross revenue is for landings of Spanish mackerel on the Florida east coast or for landings during a fishing year by the same vessels of all logbook-reported trips and fish (regardless of species, gear, area of capture and/or port of landing), and is expressed in 2001 dollars. The dollar values were obtained using trip level logbook-reported pounds landed by species and prices by species computed from monthly data in the NMFS, SEFC Accumulated Landings System (ALS). The dollar values were computed in an interative process going from more to less aggregated breakouts, starting with breakouts by species, state, county, year and month. Values in 2001 dollars were obtained using the Bureau of Labor Statistics Producer Price Index for all commodities as a deflator to remove the effects of general price inflation at the producer level in the U.S. economy.

Table 13. NMFS southeast coastal fisheries logbook-reported for vessels with landings of Atlantic migratory group Spanish mackerel (SM) in March, Florida east coast (1)

Fishing year (Apr 1 - Mar 31)	Landed Spanish mackerel in March, Florida east coast				Same vessels, annual gross revenue, all fish, thousand 2001 $	Per-vessel medians (50th percentiles), vessels with Spanish mackerel landings in March, Florida east coast						
	Vessels	Trips	SM, thousand pounds landed	Gross revenue, SM, thousand 2001 $		SM, pounds landed in March	Annual gross rev., all fish, 2001 $ per year	% annual gross rev. from SM in March	Vessel length, feet	Trips in March with landings of SM	Trips per year, all fish	Days away from port per year, all fish
1998/1999	80	283	94	$89	$1,878	638	$16,530	4%	25	2	33	38
1999/2000	92	216	79	$54	$2,180	265	$13,421	2%	27	1	42	43
2000/2001	109	303	172	$145	$2,349	159	$14,950	2%	26	2	47	48
2001/2002	92	379	168	$150	$1,873	299	$15,850	2%	26	2	48	50
2002/2003	87	210	84	$53	$2,155	79	$14,763	1%	29	2	47	47
Total		1,391	596	$491	$10,439							

(1) Landings, revenue, trips and days away from port are for the entire year, and these indicators of commercial fishing activity begin with a data selection process that includes logbook-reported observations with landings of at least 1 pound of fish. Estimated gross revenue is for Spanish mackerel in March on the Florida east coast or for landings during a fishing year by the same vessels of all logbook-reported trips and fish (regardless of species, gear, area of capture and/or port of landing), and is expressed in 2001 dollars. The dollar values were obtained using trip level logbook-reported pounds landed by species and prices by species computed from monthly data in the NMFS, SEFSC Accumulated Landings System (ALS). The dollar values were computed in an interative process going from more to less aggregated breakouts, starting with breakouts by species, state, county, year and month. Values in 2001 dollars were obtained using the Bureau of Labor Statistics Producer Price Index for all commodities as a deflator to remove the effects of general price inflation at the producer level in the U.S. economy.

Table 14. Landings of King Mackerel for selected locations by pounds and by ex-vessel value for 2000 and 2003. Source, NMFS logbook data 2000 and 2003.

Name of County	Landings 2000	Landing 2003	Ex-vessel Value 2000	Ex-vessel Value 2003
Florida East Coast				
Indian River	388,754	184,189	$1,502,203	$1,536,372
Palm Beach	381,311	757,935	$1,717,854	$2,133,328
Brevard	354,670	314,303	$1,948,057	$1,970,000
Dade	198,330	143,036	$759,000	$561,060
St. Lucie	174,043	260,267	$1,622,792	$1,663,790
Florida West Coast				
Monroe	574,190	829,582	$4,740,929	$3,585,184
Collier	142,052	96,540	$401,148	NA
Bay	112,382	78,109	$3,443,641	$2,996,618
Okaloosa	70,734	62,987	$2,542,542	$2,877,563
Louisiana				
Lafourche	472,969	290,070	$4,071,426	$2,312,548
Jefferson	190,325	200,221	$1,376,654	$1,274,300
Cameron	132,976	61,704	$1,930,478	$1,779,344
Plaquemines	88,208	266,566	$377,979	$1,192,174
North Carolina				
Dare	550,625	205,973	$1,994,858	$1,139,808
New Hanover	157,695	211,466	$1,008,069	$866,528

Table 15. Community Demographics-Monroe County, Florida
(Based on U.S. Census Profiles 2000)

Description According to U.S. Census Profiles 2000	Number	Percent
Total Population	79,589	100.0
Female	37,210	46.8
Male	42,379	53.2
18 years and over	65,984	82.9
65 years and over	11,648	14.6
Ethnicity and/or Race		
White	72,151	90.7
Black of African American	3,795	4.8
American Indian and Alaska Native	301	0.4
Asian	657	0.8
Native Hawaiian and Other Pacific Islander	35	0.0
Some other race	1,232	1.5
Two or more races	1,418	1.8
Hispanic or Latino of any race	12,553	15.8
Educational Attainment (Population 25 and over)		
Less than 9th grade	2,827	4.6
High school graduate (includes equivalency)	17,664	28.9
Bachelor's degree	10,256	16.8
Graduate or professional degree	5,327	8.7

Language Spoken at Home (5 years and older)		
English only	59,964	78.6
Speak English less than very well	16,337	21.4
Speak language other than English at home	6,337	8.3
Income		
Median household income	42,283	
Median family income	50,734	
Per capita income	26,102	
Poverty Status (families below the poverty line)	1,403	6.8
Home Ownership		
Owner occupied	21,893	62.4
Renter occupied	13,193	37.6
Median value owner-occupied housing	241,200	
Median monthly rent	820	
Employment Status (population 16 yrs and over)		
Civilian labor force	42,545	63.0
Civilian labor force unemployed	1,364	2.0
Occupation		
Management, professional, and related occupations	11,232	27.3
Service occupations	9,635	23.4
Sales and office occupations	10,422	25.3

Farming, fishing, and forestry occupations	1,332	3.2
Construction, extraction, and maintenance occupations	5,006	12.2
Production, transportation, and material moving occupations	3,554	8.6
Industry		
Agriculture, forestry, fishing, and hunting	1,430	3.5
Construction	3,839	9.3
Manufacturing	829	2.0
Percent government workers	6,518	15.8
Retail trade	5,299	12.9

Table 16. Community Demographics - Key West
(Based on U.S. Census Profiles 2000)

Description According to U.S. Census Profiles 2000	Number	Percent
Total Population	25,478	100.0
Female	11,461	45.0
Male	14,017	55.0
18 years and over	21,406	84.0
65 years and over	2,990	11.7
Ethnicity and/or Race		
White	21,642	84.9
Black of African American	2,365	9.3
American Indian and Alaska Native	99	0.4
Asian	329	1.3
Native Hawaiian and Other Pacific Islander	14	0.1
Some other race	474	1.9
Two or more races	555	2.2
Hispanic or Latino of any race	4,215	16.5
Educational Attainment (Population 25 and over)		
Less than 9th grade	1,118	5.8
High school graduate (includes equivalency)	4,841	25.0
Bachelor's degree	3,377	17.4
Graduate or professional degree	1,908	9.8

Language Spoken at Home (5 years and older)		
English only	18,295	75.2
Speak English less than very well	2,351	9.7
Speak language other than English at home	6,047	24.8
Income		
Median Household Income	43,021	
Median family income	50,895	
Per capita income	26,316	
Poverty Status (families below the poverty line)	321	5.8
Home Ownership		
Owner occupied	5,021	45.6
Renter occupied	5,995	54.4
Median value owner-occupied housing	265,800	
Median monthly rent	899	
Employment Status (population 16 yrs and over)		
Civilian labor force	14,201	65.2
Civilian labor force unemployed	424	1.9
Occupation		
Management, professional, and related occupations	4,108	29.8
Service occupations	3,675	26.7
Sales and office occupations	3,610	26.2

Farming, fishing, and forestry occupations	301	2.2
Construction, extraction, and maintenance occupations	1,260	9.1
Production, transportation, and material moving occupations	823	6.0
Industry		
Agriculture, forestry, fishing, and hunting	319	2.3
Construction	1,123	8.2
Manufacturing	231	1.7
Percent government workers	2,616	19.0
Retail trade	1,612	11.7

Table 17. Community Demographics - Dare County, North Carolina
(Based on U.S. Census Profiles 2000)

Description According to U.S. Census Profiles 2000	Number	Percent
Total Population	29,967	100.0
Female	14,869	49.6
Male	15,098	50.4
18 years and over	23,556	78.6
65 years and over	4,124	13.8
Ethnicity and/or Race		
White	28,393	94.7
Black of African American	797	2.7
American Indian and Alaska Native	83	0.3
Asian	111	0.4
Native Hawaiian and Other Pacific Islander	13	0.0
Some other race	269	0.9
Two or more races	301	1.0
Hispanic or Latino of any race	666	2.2
Educational Attainment (Population 25 and over)		
Less than 9th grade	619	2.9
High school graduate (includes equivalency)	5,994	27.6
Bachelor's degree	4,174	19.2
Graduate or professional degree	1,834	8.4

Language Spoken at Home (5 years and older)		
English only	27,256	95.9
Speak English less than very well	414	1.5
Speak language other than English at home	1,169	4.1
Income		
Median household income	42,411	
Median family income	49,302	
Per capita income	23,614	
Poverty Status (families below the poverty line)	468	5.5
Home Ownership		
Owner occupied	9,460	74.5
Renter occupied	3,230	25.5
Median value owner-occupied housing	137,200	
Median monthly rent	638	
Employment Status (population 16 yrs and over)		
Civilian labor force	16,504	67.9
Civilian labor force unemployed	808	3.3
Occupation		
Management, professional, and related occupations	4,680	29.8
Service occupations	2,668	17.0
Sales and office occupations	4,062	25.9

Farming, fishing, and forestry occupations	543	3.5
Construction, extraction, and maintenance occupations	2,554	16.3
Production, transportation, and material moving occupations	1,189	7.6
Industry		
Agriculture, forestry, fishing, and hunting	538	3.4
Construction	2,147	13.7
Manufacturing	762	4.9
Percent government workers	2,654	16.9
Retail trade	2,285	14.6

Table 18. Community Demographics - Lafourche Parish, Louisiana
(Based on U.S. Census Profiles 2000)

Description	Number	Percent
Total Population	89,974	100.0
Female	46,097	51.2
Male	43,877	48.8
18 years and over	65,421	72.7
65 years and over	10,143	11.3
Ethnicity and/or Race		
White	74,544	82.9
Black of African American	11,349	12.6
American Indian and Alaska Native	2,066	2.3
Asian	599	0.7
Native Hawaiian and Other Pacific Islander	21	0.0
Some other race	518	0.6
Two or more races	877	1.0
Hispanic or Latino of any race	1,284	1.4
Educational Attainment (Population 25 and over)		
Less than 9th grade	9,861	17.6
High school graduate (includes equivalency)	21,236	38.0
Bachelor’s degree	4,769	8.5
Graduate or professional degree	2,139	3.8

Language Spoken at Home (5 years and older)		
English only	65,775	78.5
Speak English less than very well	4,755	5.7
Speak language other than English at home	17,979	
Income		
Median household income	34,910	
Media family income	40,504	
Per capita income	15,809	
Poverty Status (families below the poverty line)	3,212	13.2
Home Ownership		
Owner occupied	24,998	78.0
Renter occupied	7,059	22.0
Median value owner-occupied housing	78,900	
Median monthly rent	402	
Employment Status (population 16 yrs and over)		
Civilian labor force	39,535	57.9
Civilian labor force unemployed	2,328	3.4
Occupation		
Management, professional, and related occupations	9,438	25.4
Service occupations	4,889	13.1
Sales and office occupations	9,632	25.9

Farming, fishing, and forestry occupations	638	1.7
Construction, extraction, and maintenance occupations	5,099	13.7
Production, transportation, and material moving occupations	7,511	20.2
Industry		
Agriculture, forestry, fishing, and hunting	3,066	8.2
Construction	2,970	8.0
Manufacturing	4,928	13.2
Percent government workers	5,786	15.6
Retail trade	5,193	14.0

Table 19. Number of Federal Permit by Type for Key West, Florida (NMFS, 2002)

Type of Permit	**1998**	**1999**	**2000**	**2001**
Total Permits	344	247	295	361
Commercial King Mackerel	193	171	205	207
Commercial Spanish Mackerel	219	171	203	200
Commercial Spiny Lobster	125	116	134	137
Charter/Head boat for Coastal Pelagics	73	43	59	128
Charter/Head boat for Snapper Grouper	62	47	64	123
Snapper Grouper Class 1	15	127	159	157
Snapper Grouper Class 2	5	38	37	41
Swordfish	42	3	2	3
Shark	89	12	12	12
Rock Shrimp	11	7	7	7
Federal Dealers	13	12	13	12

Table 20. Community Demographics - Stock Island, Florida
(Based on U.S. Census Profiles 2000)

Description According to U.S. Census Profiles 2000	Number	Percent
Total Population	4,410	100.0
Female	2,017	45.7
Male	2,393	54.3
18 years and over	3,372	76.5
65 years and over	375	8.5
Ethnicity and/or Race		
White	3,526	80.0
Black of African American	461	10.5
American Indian and Alaska Native	16	0.4
Asian	48	1.1
Native Hawaiian and Other Pacific Islander	2	0.0
Some other race	210	4.8
Two or more races	147	3.3
Hispanic or Latino of any race	1,911	43.3
Educational Attainment (Population 25 and over)		
Less than 9th grade	548	18.3
High school graduate (includes equivalency)	1,150	38.5
Bachelor's degree	200	6.7
Graduate or professional degree	88	2.9

Language Spoken at Home (5 years and older)		
English only	2,420	57.9
Speak English less than very well	998	23.9
Speak language other than English at home	1,757	42.1
Income		
Median household Income	31,537	
Median family income	38,029	
Per capita income	14,346	
Poverty Status (families below the poverty line)	206	19.2
Home Ownership		
Owner occupied	863	50.4
Renter occupied	850	49.6
Median value owner-occupied housing	158,300	
Median monthly rent	691	
Employment Status (population 16 yrs and over)		
Civilian labor force	2,256	64.7
Civilian labor force unemployed	64	1.8
Occupation		
Management, professional, and related occupations	339	15.5
Service occupations	638	29.1
Sales and office occupations	421	19.2

Farming, fishing, and forestry occupations	164	7.5
Construction, extraction, and maintenance occupations	371	16.9
Production, transportation, and material moving occupations	259	11.8
Industry		
Agriculture, forestry, fishing, and hunting	177	8.1
Construction	206	9.4
Manufacturing	72	3.3
Percent government workers	241	11.0
Retail trade	202	9.2

16.0 FIGURES

Figure 1.--King mackerel, Gulf migratory group, commercial landings and quota (landings for 2003/2004 estimated)

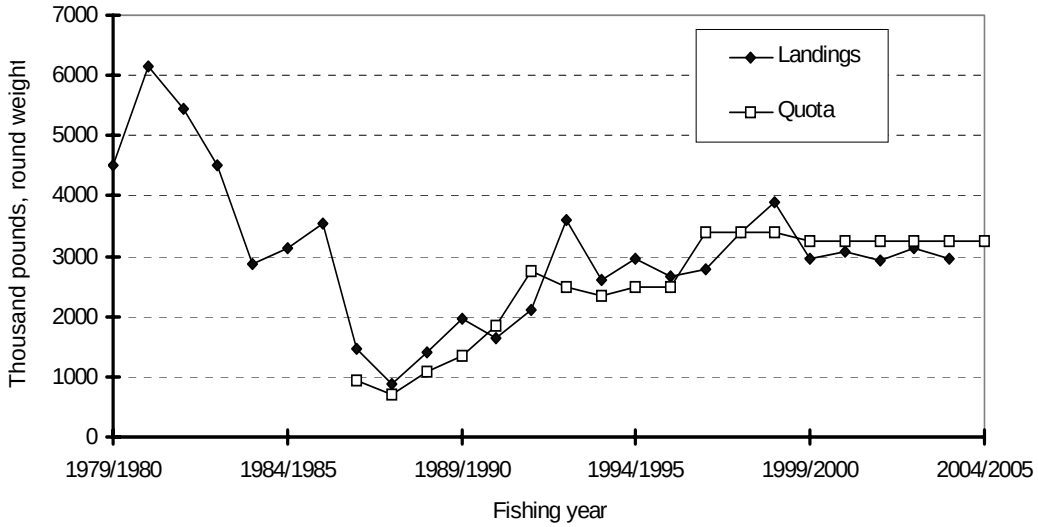


Figure 2.--King mackerel, Atlantic migratory group, commercial landings and quota (landings for 2003/2004 estimated)

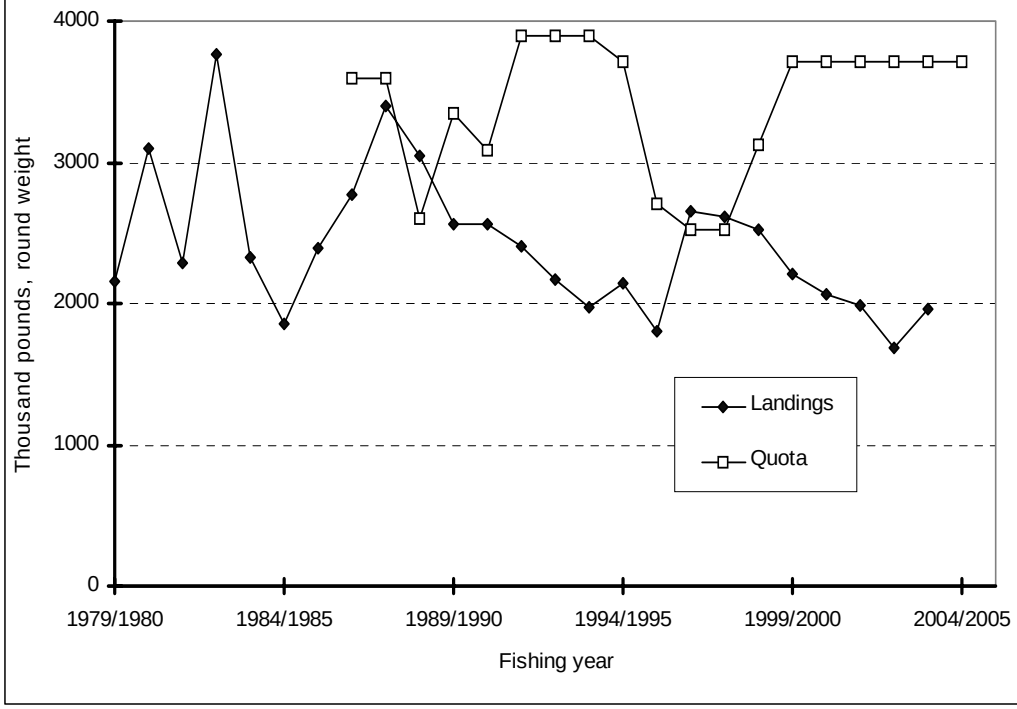


Figure 3.--Spanish mackerel, Atlantic migratory group, commercial landings and quota
(landings for 2003/2004 estimated)

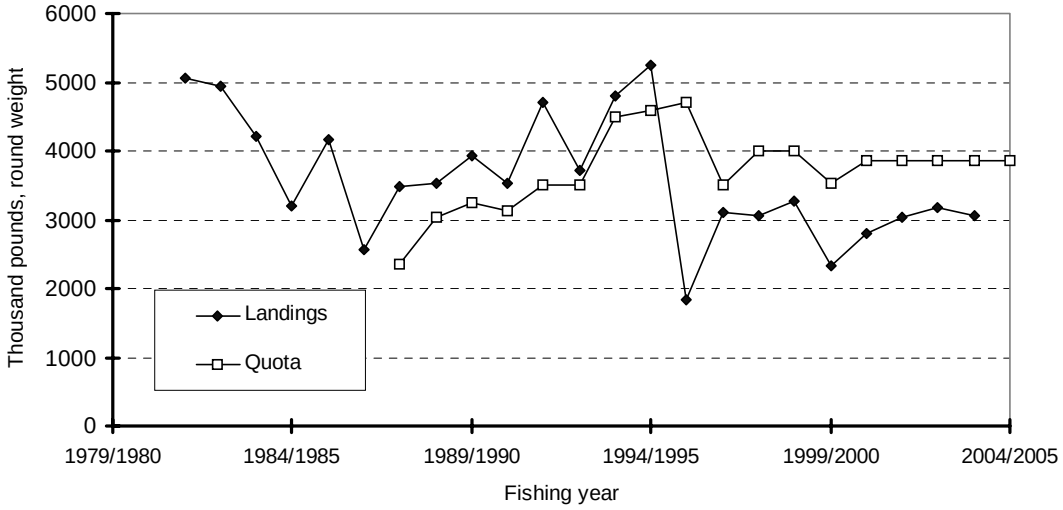


Figure 4.--King mackerel, Gulf migratory group, recreational landings and quota

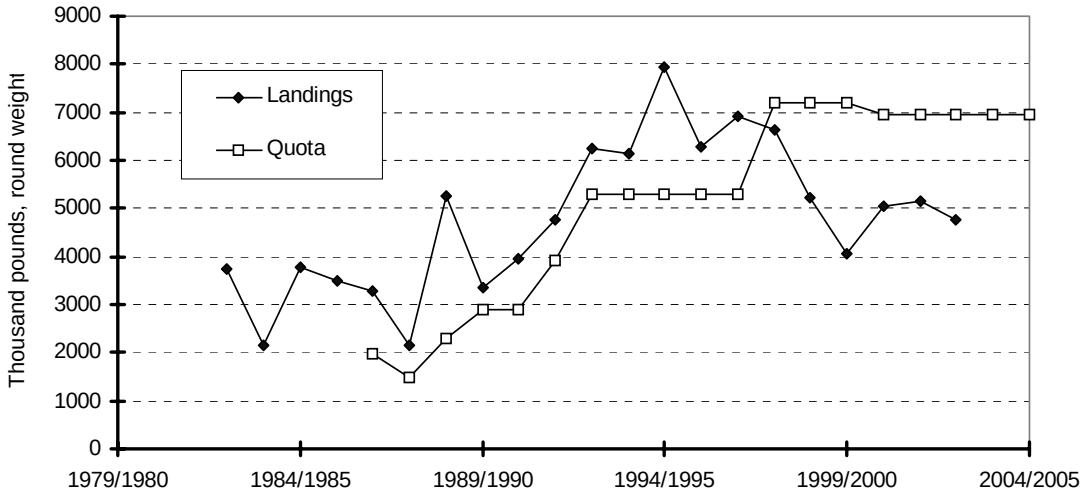


Figure 5.--King mackerel, Atlantic migratory group, recreational landings and quota

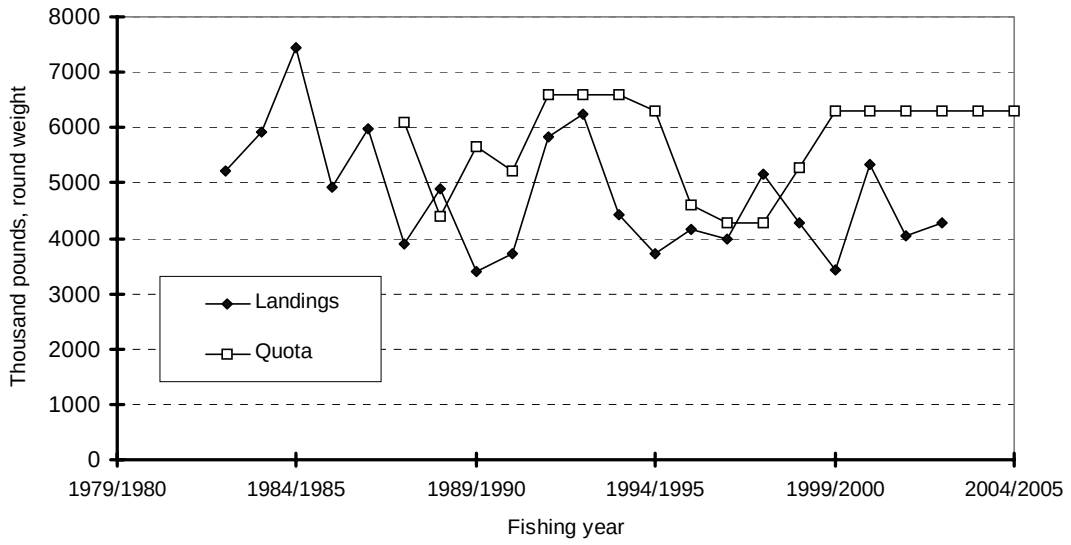


Figure 6.--Spanish mackerel, Atlantic migratory group, recreational landings and quota

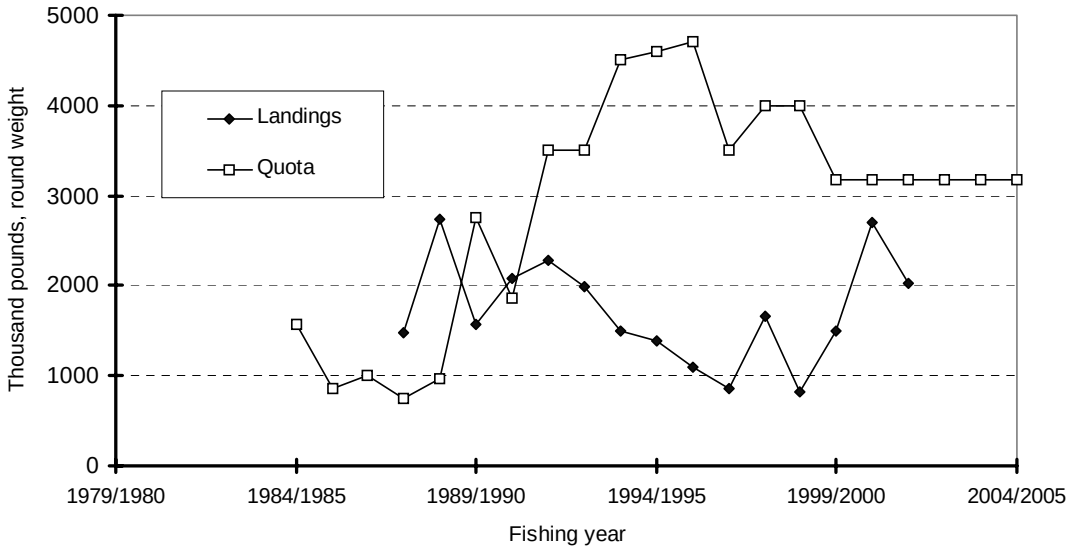


Figure 7.--Commercial landings of king mackerel, Atlantic and Gulf coasts, 1962-2002

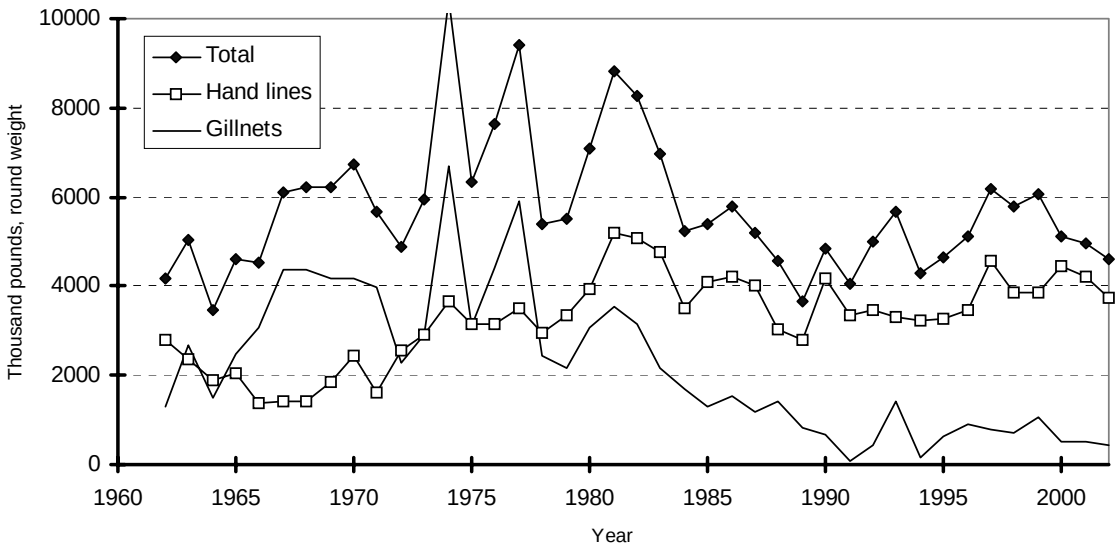


Figure 8.--Commercial landings of Spanish mackerel, Atlantic and Gulf coasts, 1962-2002

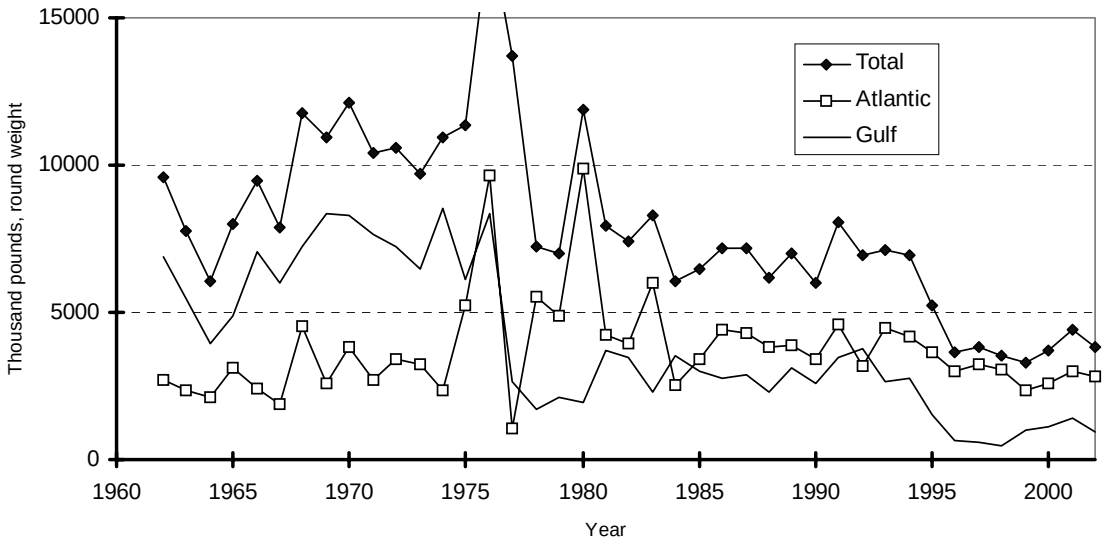


Figure 9.--Real ex-vessel prices, selected fish, Atlantic coast

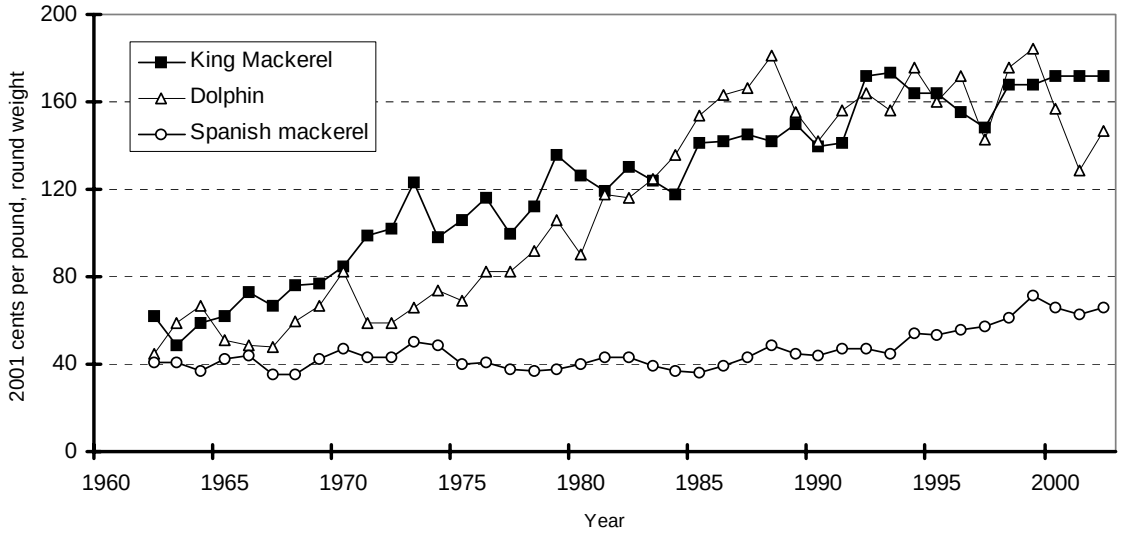


Figure 10.--Real ex-vessel prices, selected fish, Gulf coast

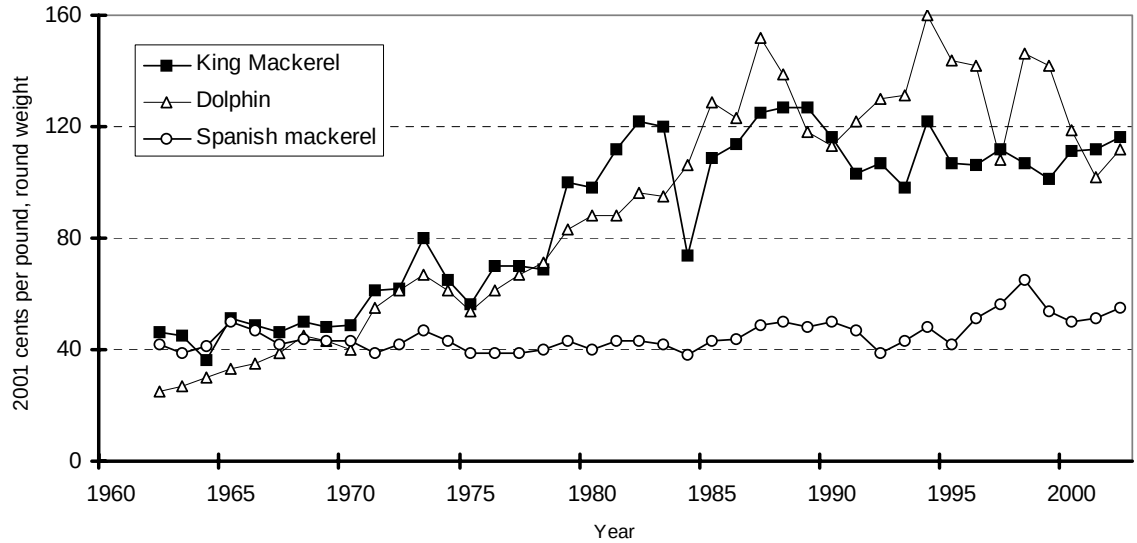


Figure 11.--King mackerel, Gulf migratory group, 5-year averages for monthly commercial landings 1998/1999 - 2002/2003, total and selected subzones, July-June fishing year

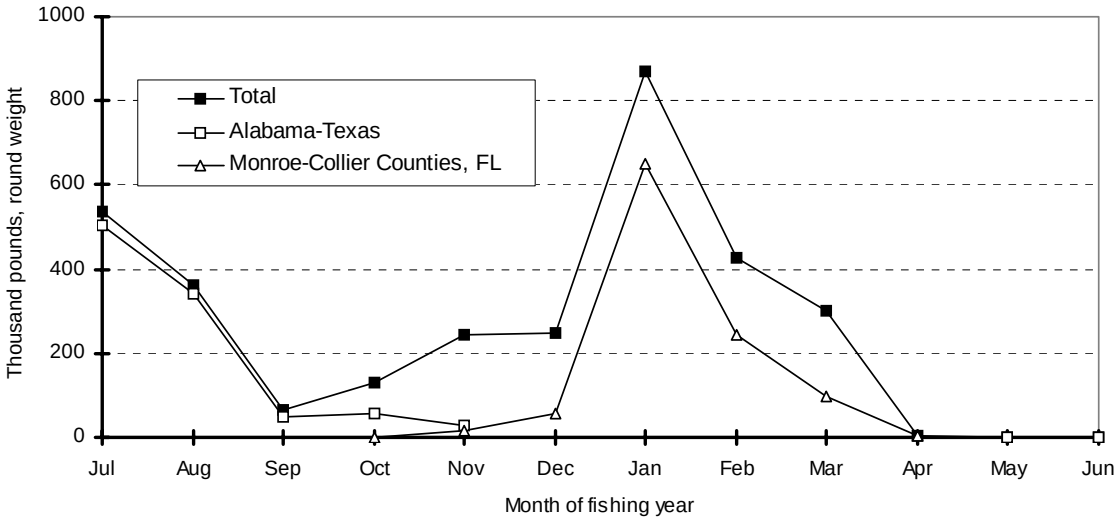


Figure 12.--King mackerel, Atlantic migratory group, 5-year averages for monthly commercial landings for 1998/1999 - 2002/2003, total and selected subzones, April-March fishing year

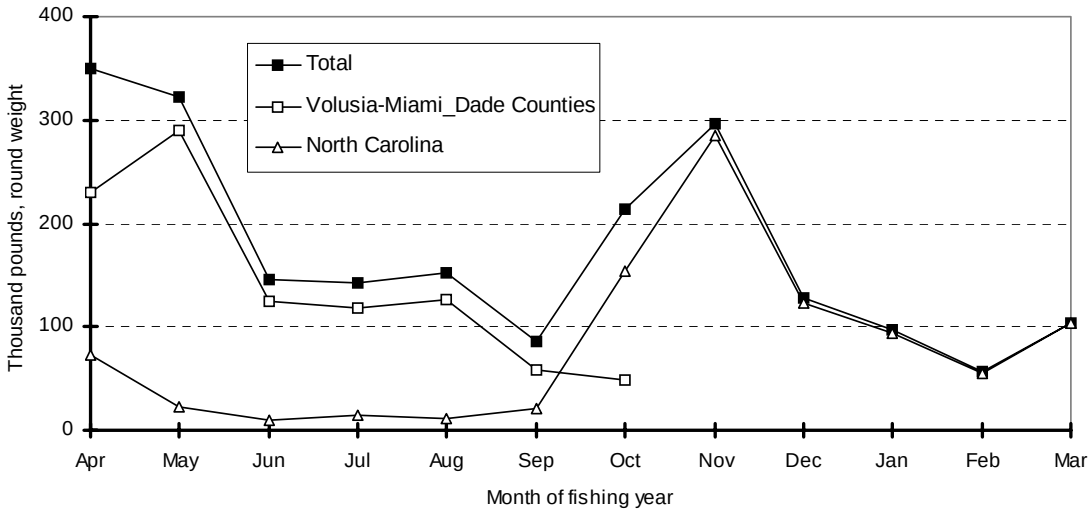


Figure 13.--King mackerel, Atlantic migratory group, 5-year averages for monthly commercial landings for 1998/1999 - 2002/2003, total and selected subzones, April-March fishing year

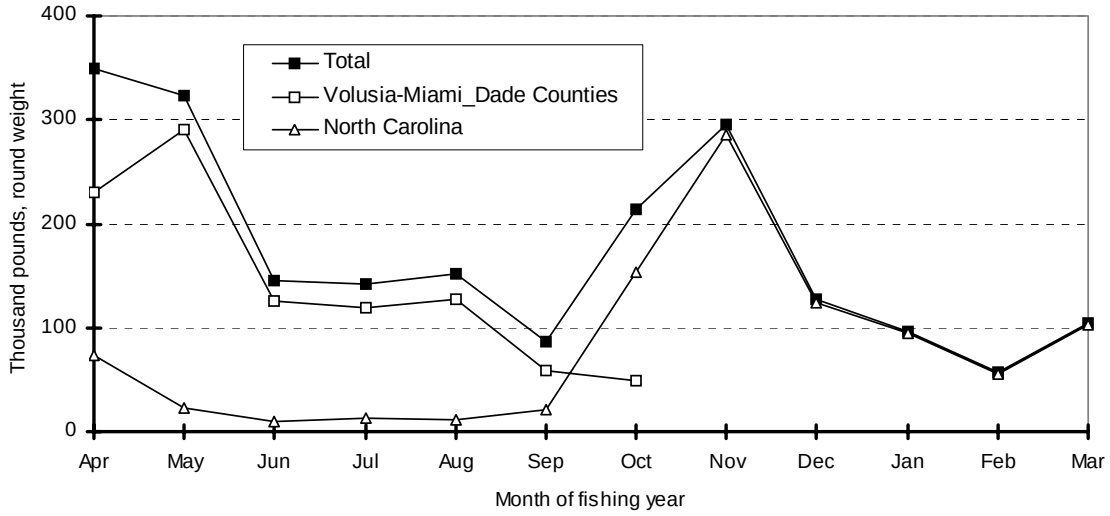


Figure 14.--King mackerel, Atlantic migratory group, 5-year averages for cumulative monthly commercial landings for 1998/1999 - 2002/2003, total and selected subzones, April-March fishing year

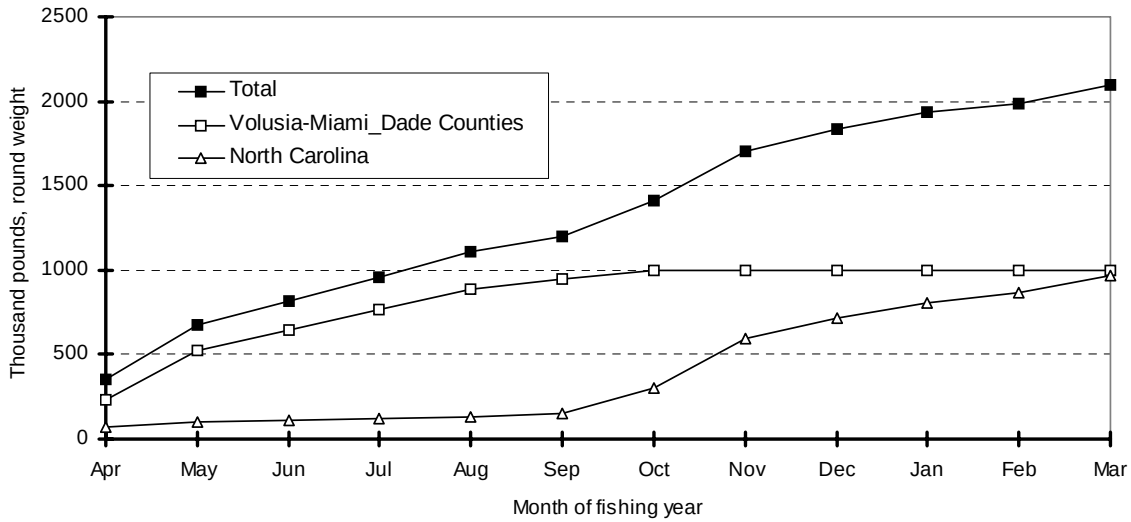


Figure 15.--Spanish mackerel, Atlantic migratory group, 5-year averages for monthly commercial landings, 1998/1999-2002/2003, total and subzones, April-March fishing year

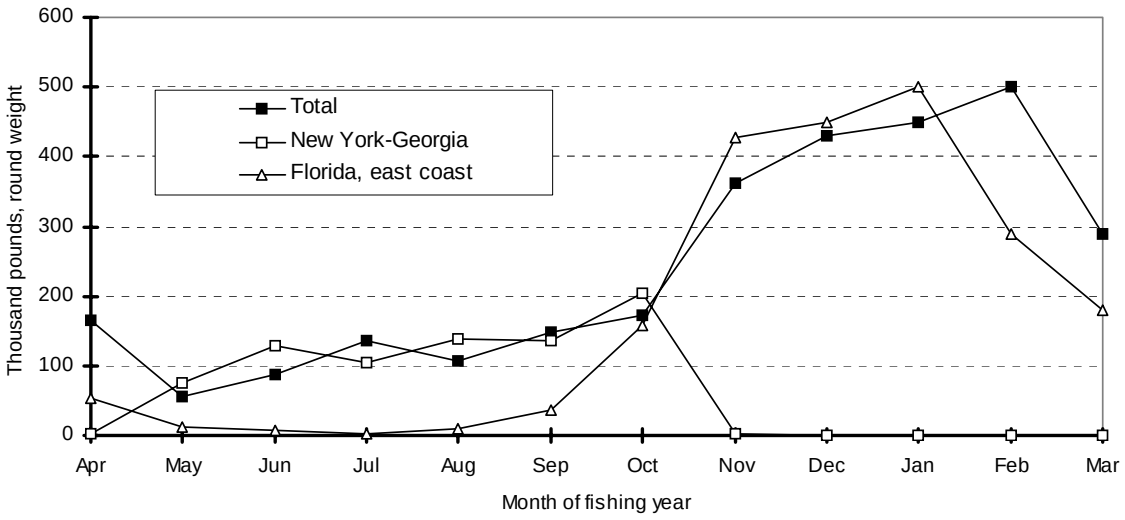
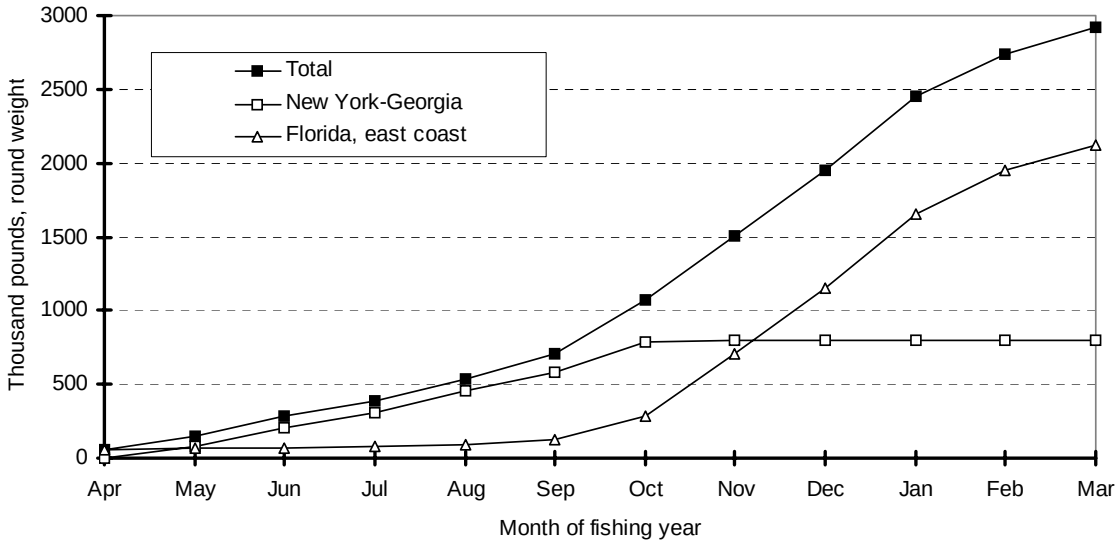


Figure 16.--Spanish mackerel, Atlantic migratory group, 5-yr averages for cumulative monthly commercial landings, 1998/1999-2002/2003, total and subzones, April-March fishing year



APPENDIX A. ALTERNATIVES CONSIDERED BUT REJECTED

Forms of License Limitation from the scoping document (page 5, SAFMC Scoping Document for Amendment 15, Attachment 1-B)

ALTERNATIVE 1: Establish 3 classes of commercial king mackerel hook-and-line licenses for vessels based on the earned income of the owners or operators who are listed as the earned income qualifier on the current commercial king mackerel vessel permit or the application therefor. For the purpose of establishing classes, the earned income used shall be the highest annual value from the sale of catch (or charter or head boat fishing) reported for commercial king mackerel permitting purposes during the most recent 3 calendar years. The top one-third will be Class I; the middle one-third will be Class II; and the lowest one-third will be Class III.

ALTERNATIVE 2: Establish 2 classes of commercial king mackerel hook-and-line licenses for vessels based on the earned income of the owners or operators who are listed as the earned income qualifier on the current commercial king mackerel vessel permit or the application therefor. For the purpose of establishing classes, the earned income used shall be the highest annual value from the sale of catch (or charter or head boat fishing) reported for commercial king mackerel permitting purposes during the most recent 3 calendar years. The top one-half will be Class I, and the lower one-half will be Class II.

ALTERNATIVE 3: Establish only 1 class commercial king mackerel hook-and-line licenses. Participants would be those holding a commercial king mackerel permit at the time of implementation of this amendment.

ALTERNATIVE 4: Establish commercial king mackerel hook-and-line license classes in accordance with Alternatives 1 or 2; however, denote classes based on earned income from the sale of only king mackerel.

ALTERNATIVE 5: Establish 3 (or 2) commercial king mackerel hook-and-line license classes based on the recorded landings (e.g., logbooks or State trip tickets) of king mackerel by vessels with king mackerel permits during the most recent 3 calendar years. If 3 license classes are selected, the top one third will be Class I; the middle one third, Class II, and the lowest one third, Class III. If only 2 classes are used, the top one half will be Class I and the lower one half will be Class II.

ALTERNATIVE 6: Establish a single separate license class for commercial king mackerel gill-net vessels because they are currently under a limited access system with limited transferability.

Specific Features of License Limitation from the scoping document (page 6, SAFMC Scoping Document for Amendment 15, Attachment 1-B)

Licenses Initially Issued to Vessels from the scoping document (page 6, SAFMC Scoping Document for Amendment 15, Attachment 1-B)

ALTERNATIVE 1: A commercial king mackerel license will be issued to a vessel if the vessel had a valid commercial king mackerel permit at the time of implementation of this amendment.

ALTERNATIVE 2: A commercial king mackerel license will be issued to a vessel if that vessel had a commercial king mackerel permit at the time of the implementation of Amendment 12 (2000) to the Coastal Migratory Pelagics FMP, and such vessel also had a commercial king mackerel permit at the time of implementation of this amendment.

ALTERNATIVE 3: A commercial king mackerel license will be issued to a vessel if that vessel had a commercial king mackerel vessel permit at the time of the implementation of Amendment 12 (2000) to the Coastal Migratory Pelagics FMP or received a commercial king mackerel permit through transfer from another vessel with a commercial king mackerel permit following the implementation of Amendment 12 (2000) to the Coastal Migratory Pelagics FMP.

Qualification Criteria from the scoping document (page 6-7, SAFMC Scoping Document for Amendment 15, Attachment 1-B)

ALTERNATIVE 1: A commercial king mackerel license will be issued to vessels whose earned income from commercial sales of catch (all species) (or charter or head boat fishing) was as follows, and the vessel had a valid commercial king mackerel vessel permit on the date of implementation of this amendment:

a. 25 % of total earned income or $10,000 (the current income requirement)
b. 50 % of total earned income or $25,000
c. These or other income requirements during 1, 2, or 3 of the 3, 4 or 5 calendar years 1999, 2000, 2001, 2002, and 2003

ALTERNATIVE 2: A commercial king mackerel license will be issued to only those vessels with recorded landings of king mackerel of:

a. at least 1,000 pounds but less than 5,000 pounds would qualify for a non-transferable trip limited permit of 225 pounds.
. b. at least 5,000 pounds
c. at least 10,000 pounds
d. at least 15,000 pounds
e. These or other pounds during:
   Option a - 1, 2 or 3 of the 4 or 5 calendar years 1999, 2000, 2001, 2002, and 2003.
   Option b - 1 (or 2) of the 3 calendar years preceding the moratorium expiration (October 15, 2005).

ALTERNATIVE 3: A commercial king mackerel license will be issued to only those vessels holding a valid commercial king mackerel vessel permit on the date of implementation of this amendment.

Initial Allocations from the scoping document (page 7-8, SAFMC Scoping Document for Amendment 15, Attachment 1-B)

ALTERNATIVE 1: For Class I hook-and-line licenses, establish an initial vessel trip limit of 1,500 pounds; Class II - 1,000 pounds; and Class III - 500 pounds.

ALTERNATIVE 2: For Class I hook-and-line licenses, establish an initial vessel trip limit of 1,000 pounds; Class II - 500 pounds; and Class III - 250 pounds.

ALTERNATIVE 3: Establish an initial trip limit of 25,000 pounds for vessels with commercial king mackerel gill-net fishing license.

ALTERNATIVE 4: Establish separate initial trip limit allocations for Gulf group king mackerel in the Eastern Zone, Western Zone, and the commercial gill-net fishery in the South/West Area of the Eastern Zone.

ALTERNATIVE 5: Status Quo - Maintain the existing trip allocations based on zones, subzones, and gear for qualifying license holders upon implementation of this amendment.

Transferability of Licenses from the scoping document(page 8, SAFMC Scoping Document for Amendment 15, Attachment 1-B)

ALTERNATIVE 1: Status quo - Commercial king mackerel licenses may be transferred without restrictions.

ALTERNATIVE 2: Commercial king mackerel licenses may be transferred to another owner or operator as a result of hardship such as death of the owner or operator of the vessel licensed, or with the vessel when it is sold.

ALTERNATIVE 3: Commercial king mackerel licenses may not be transferred initially (or for 2 [3] years) in order to reduce the effective effort on king mackerel stocks. At a future date, the Councils may implement transferability requirements through a regulatory amendment, following hearings.

ALTERNATIVE 4: Commercial king mackerel hook-and-line licenses in Class III (or Class II and III) above may not be transferred (except under hardship conditions, i.e., death of the licensee), and if not renewed, the license will be cancelled.

Appeals Regarding Ineligibility from the scoping document(page 9, SAFMC Scoping Document for Amendment 15, Attachment 1-B)

ALTERNATIVE 1: Establish an appeals board to hear disputes regarding eligibility for commercial king mackerel licenses and to make recommendations for resolution.

ALTERNATIVE 2: Do not establish such an appeals board, i.e., all disputes will be resolved by the Regional Administrator (RA) of NMFS.

ALTERNATIVE 3: An Application Oversight Board will be established to assist the NMFS Regional Administrator in handling disputes over eligibility for limited access permits. The board will not evaluate "hardship" (e.g., sickness, loss of vessel, etc.) applications. There will be a 240-day time limit after the publication date of the final rule in which an individual must appeal to the board (*This wording parallels the wording used in the limited access program for South Atlantic Rock Shrimp, Amendment 5).*

Structure and Function of the Appeals Board from the scoping document(page 10, SAFMC Scoping Document for Amendment 15, Attachment 1-B)

ALTERNATIVE 1: Establish an appeals board composed of 5 members that are associated with or participants in the commercial king mackerel fishery. Appeals board members will be selected by the Council from a list of at least 3 nominees by each state director. Recommendations of the appeals board will be summarized by a Council representative in attendance at hearings and forwarded to the RA of NMFS, and the RA will render a final decision on the appeal.

ALTERNATIVE 2: Establish an appeals board composed of 5 members that are associated with or participants in the commercial king mackerel fishery. Appeals board members will be selected by the Council from a list of at least 3 nominees by each state director. Appeals board members will

submit individual recommendations regarding an appeal to the RA who will render a final decision on the appeal.

ALTERNATIVE 3: Establish an appeals board made up of representatives of NOAA Fisheries and selected by the RA to hear disputes and advise the RA. The RA will render a final decision on the appeal.

ALTERNATIVE 4: Establish an appeals board made up of the State Directors (or designees) from each state in the Councils' area of jurisdiction to ensure the criteria for a limited access permit were applied to an owner's application in a proper manner. Each member will provide his/her individual recommendation on each appeal to the NOAA Fisheries Regional Administrator for final administrative decision. NOAA General Counsel will have an advisory role to board members, and NOAA Fisheries and Council staffs will provide assistance.

APPENDIX B. ADVISORY PANEL AND SCIENTIFIC AND STATISTICAL COMMITTEE COMMENTS AND PUBLIC HEARING SUMMARIES

B-1 GMFMC's Advisory Panel Comments

Summary
Gulf of Mexico Fishery Manage Council
Mackerel Advisory Panel
Conference Call, October 25, 2004

The meeting was called to order at 10:10 AM EST by Mike Nugent, Chair. There were only four AP members present so there was no quorum. However, Stu Kennedy, who was sitting in for Rick Leard, asked that the panel members provide some guidance on Amendment 15 to the Coastal Migratory Pelagics Fishery Management Plan which contains Actions to continue the current commercial king mackerel permit moratorium in the Gulf and to change the fishing year for the South Atlantic group of king mackerel.

Bob Zales began by supporting the continuation of the moratorium via Action 1, Alternative 4 and then discussing the potential use of IFQs to manage mackerels as well as red snapper and groupers. While he approved of the direction the Council was taking for red snapper, he felt it was important to set a standard for how IFQs would be applied (initial allocations, tracking of share transfers, etc.); and then apply that standard to all commercial IFQ programs, in essence adding new species or fisheries to a blanket IFQ plan.

Mike Nugent then asked if anyone present would speak in opposition to continuing the moratorium or had heard from their area of people who opposed the continuation of the moratorium. Hearing none, he asked if the AP should recommend Action 1, Alternative 4 to the Council. All four members agreed.

There was very little discussion of Action 2, changing the fishing year for South Atlantic Group king mackerel. The general consensus was that so long as it did not hurt the Gulf Group king mackerel or cause SA mackerel fishermen to move to the Gulf Group king mackerel, they had no opposition to any of the Alternatives.

The conference call was adjourned at 10:20 AM, EST.

AP members Present: Mike Nugent, Chair	Others: Myron Fischer, Council Member
Chris Jenkins	Stu Kennedy, Council Staff
George Niles	Doug DeVries, NOAA Fisheries
Bob Zales, II	Peter Hood, NOAA Fisheries

NOTE: Bobby O'Barr called in at 11:10 AM EST and apologized for not realizing that the meeting time was EST and not CST. He agreed with the recommendations made by the AP members present.

B-2 GMFMC's Scientific and Statistical Committee Comments

SUMMARY OF
THE STANDING SCIENTIFIC AND STATISTICAL COMMITTEE (SSC)
AND THE SPECIAL MACKEREL AND REEF FISH SSC MEETING
November 1, 2004
CONFERENCE CALL

Members:

Walter Keithly, Chairman
Charles Adams - absent
Luiz Barbieri - absent
Karen Burns
Paul Choucair
Robert Colura - absent
James Cowan - absent
Sandra Diamond - absent
Doug Devries
Barbara Dorf
Gary Fitzhugh
James Franks - absent
Billy Fuls - absent
Gene Huntsman
Douglas Gregory
Albert Jones
Rick Kasprzak - absent
Andrew Kemmerer
Bill Lindberg
Richard McBride
Randall Pausina
John Roussel - absent
James Wilkins - absent
Charles Wilson - absent

Others:
Myron Fischer
Julie Morris
Peter Hood

Staff:
Steven Atran
Stu Kennedy
Richard Leard

The SSC approved the agenda as written; however, there was not a quorum present.

Draft Amendment 15 to the Coastal Migratory Pelagics FMP

W. Keithly reviewed the alternatives for Action 1. A. Kemmerer asked that a table be added that succinctly explained the effects on users of each alternative. Following discussion, **the SSC recommended that Alternative 4 be approved and that it be revised to clarify that this extension of the moratorium would be to allow time to pursue a more applicable limited access system for the fishery.**

It was also noted that if the Council developed IFQ or ITQ systems it could also change some of the current regulations, e.g., trip limits.

W. Keithly then reviewed the alternatives for Action 2. The SSC discussed potential problems with all of the alternatives, but did not feel that there were significant scientific concerns. No recommendations were made.

B-3 GMFMC's Public Hearing Summaries

Brownsville, Texas
October 18, 2004

0 Members of the Public in Attendance

Port Aransas, Texas
October 19, 2004

0 Members of the Public in Attendance

Key West, Florida
October 19, 2004

3 Members of the Public in Attendance but no members of the public gave testimony.

Galveston, Texas
October 20, 2004

2 Members of the Public in Attendance
Lance Robinson
Rick Leard
Lorna Evans

Derwyn Booker - Charterboat captain. He was opposed to opening the fishery to new entrants. He supported status quo.

Monty Weeks - Recreational fisherman. He supported Alternative 4.

Grand Isle, Louisiana
October 21, 2004

10 Members of the Public in Attendance
Myron Fischer
Rick Leard
Lorna Evans

Kelty Readenour - Shrimp Fisherman. He supported a permanent moratorium. He suggested changing the open date to October 1st. He questioned whether a fisherman could keep his permit if it were not used.

Terry Pizani - Shrimp Fisherman. He supported Alternative 4. He was opposed to fishermen from other states fishing in this area. He supported fishing zones. He was also opposed to weight limits

and felt it should be limited by the number of fish. He suggested that the season be open October 1st or November 1st.

Dean Blanchard - Seafood Dealer. He supported Alternative 4. He asked that the opening date be changed to a later date, i.e., October 1 or August 15. He supported using a head count instead of a number count.

Panama City, Florida
October 25, 2004

4 Members of the Public in Attendance
Jim Fensom
Rick Leard
Meg Kosick

Mr. Nicholas P. Patzig, Ft. Walton Beach, Fl, stated that he was the Owner/Operator of Big Red and also represented George Ramadka, Owner/Operator of the Jean Marie; Charles Morgan, Owner/Operator of the Hey Baby; Jimmy Patzig of the Skip Jack; David Rohah of the Shooting Star; Brian Goff of an unamed boat; Tim Goff of an unamed boat; Dale Bebe of the Lady Anne; and Neil Finkle of the Vixen. They support alternative 4 as long as it does not go into a limited access system for king mackerel, if it does, he would support the ten-year moratorium.

Mr. Benji Kelley, Panama City FL, stated that he was representing Kelley Charters and he supports the ten-year moratorium. He does not like limited access.

Mobile, Alabama
October 26, 2004

0 Members of the Public in Attendance

Biloxi, Mississippi
October 27, 2004

0 Members of the Public in Attendance

Madeira Beach, Florida
October 28, 2004

0 Members of the Public in Attendance

B-4 SAFMC's Public Hearing Summaries

Ronkonkoma, NY
October 6, 2004
Hearing Chair: Mr. Ronal Smith, Mid Atlantic Council
One member of the public attended the meeting to comment.

- Action One: He preferred extending the moratorium ("…that keeping the moratorium in effect is important and if the preferred alternative for the council is Alternative Four, that is a good way to do it.")
- Action Two: He preferred changing the fishing year to a March 1 opening ("…would prefer a 1 March to 28th or 29th February season as opposed to a 1 January - 31 December season? I think that would make more sense for the fishermen in North Carolina, yes.")

Jacksonville Beach, FL
October 14, 2004
Hearing Chair: Ms. Susan Shipman, SAFMC

Four members of the public attended the meeting to comment.

- Action One: All wanted 10 year permit moratorium on licenses (Alternative 3)
- Action Two: No one had an opinion on the proposed change to the fishing year – claimed it would not affect them.

Ft. Pierce, FL
October 15, 2004
Hearing Chair: Mr. Mark Robson, SAFMC

Eight members of the public attended the meeting to comment.

2. Action One: All favored Alternative 3, a 10 year extension of the permit moratorium.
4. Action Two: All favored keeping the fishing year the same as it is currently (Alternative 1, Status Quo).