1/19/05

FINAL AMENDMENT 24

TO THE

REEF FISH FISHERY MANAGEMENT PLAN

FOR REEF FISH RESOURCES

IN THE GULF OF MEXICO

INCLUDING ENVIRONMENTAL ASSESSMENT,

REGULATORY IMPACT REVIEW,

AND INITIAL REGULATORY FLEXIBILITY ANALYSIS

JANUARY 2005

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Abbreviations Used in This Document

B_{MSY}	Stock biomass capable of producing maximum sustainable yield
BRD	Bycatch Reduction Device
EA	Environmental Assessment
EEZ	Exclusive Economic Zone (also known as federal waters)
EFH	Essential Fish Habitat
EIS/SEIS	Environmental Impact Statement/Supplemental Environmental Impact Statement
EO	Executive Order
F	Rate of instantaneous fishing mortality, a measure of the rate at which fish are removed from the population by fishing.
F_{MSY}	F that can sustain maximum sustainable yield
FMP	Fishery Management Plan
GMFMC	Gulf of Mexico Fishery Management Council
GW	Gutted Weight
HAPC	Habitat Area of Particular Concern
IRFA	Initial Regulatory Flexibility Analysis
IFQ	Individual Fishing Quota
ITQ	Individual Transferable Quota
MFMT	Maximum Fishing Mortality Threshold
MP	Million Pounds
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
RA	Regional Administrator (NMFS Southeast Regional Office) (formerly Regional Director)
RFA	Regulatory Flexibility Act of 1980
RIR	Regulatory Impact Review

ROD	Record of Decision
SAFMC	South Atlantic Fishery Management Council
SEIS	Supplemental Environmental Impact Statement
SFA	Sustainable Fisheries Act
SMZ	Special Management Zone
SPR	Spawning Potential Ratio
SSBR	Spawning Stock Biomass per Recruit
SSC	Scientific and Statistical Committee
SEFSC	Southeast Fisheries Science Center, Miami, Florida (NMFS Southeast Regional
TAC	Total Allowable Catch
TL	Total Length
VMS	Vessel Monitoring System
WWT	Whole Weight
USCG	United States Coast Guard

Executive Summary

"Amendment 24 to the Fishery Management Plan for Reef Fish Resources in the Gulf of Mexico" proposes to establish an indefinite limited access program for the reef fish fishery in the exclusive economic zone under the jurisdiction of the Gulf of Mexico Fishery Management Council. The Council 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 reef fish fisheries.

When establishing a limited access system, Section 303 (b) (6) of the Magnuson-Stevens Fishery Conservation and Management Act requires that the Council consider several factors. These factors are discussed in various sections of this amendment and are summarized here.

(a) Present participation in the fishery
In 1992, the first year of the moratorium, there were approximately 2,100 commercial permits for reef fish. That number has declined to approximately 1,718 in 1993 and 1,129 active permits in 2004.

(b) Historical fishing practices and the dependence on the fishery
Reef fish species are important targets for commercial fishermen throughout the Gulf. Participants in the Gulf of Mexico reef fish fishery primarily target snappers and groupers. Red and gag grouper,

red and vermilion snapper, and greater amberjack are the most commonly targeted species by both commercial and recreational fishermen. Reef fish fishing is conducted primarily by hook and line, with a small number of vessels using bottom longlines, fish traps, cast nets, and powerheads for spearfishing. The grouper fishery occurs mainly along the northeastern Gulf coast primarily along the west coast of Florida, while the snapper fishery occurs primarily along the northern and western Gulf coast. The total allowable catch (TAC) for reef fish, other than red snapper, is divided by species into a shallow-water segment and a deep-water segment. Until 2004 when these TAC levels were reduced to prevent overfishing, these annual quotas were not met. However, with the 2004 reduction in the deep-water and shallow-water quotas, the deep-water quota was met in mid-July 2004 and the shallow-water quota was met in mid-November. Commercial reef fish fishermen also participate in other fisheries, e.g., king mackerel, when reef fish fisheries are closed (see 'd' below).

(c) Economics of the fishery

Ex-vessel prices of reef fish vary by species, and have fluctuations both seasonally and over time. The estimated annual gross revenue for all logbook-reported landings of fish, for which the median values were $12,380 per vessel in 1993 and $19,909 in 2003. For vessels with permits for and landings of Gulf reef fish, these fish accounted for 95% to 98% of the estimated annual gross revenue for all logbook-reported landings of fish. The annual maximums for estimated vessel gross revenue were $346,000 to $532,000. Annual producer surplus for vessels with permits for and nominal landings of Gulf reef fish is estimated at $404,500 to $647,200 for 2003, based on current permit prices. This represents 1.2% to 1.9% of the 11-year annual average for estimated gross revenue for Gulf reef fish in 1993 through 2003, $34.37 million. Assuming that the rate of increase in producer surplus as a result of this attrition matches the decline in permitted vessels that land Gulf reef fish, 1.15%, the average annual producer surplus is estimated to range from approximately $450,000 to $720,000 by 2010, and $484,000 to $775,000 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 and Atlantic group king mackerel, golden crab, spiny lobster, stone crab, wreckfish, shark, and tuna. Many vessels that possess commercial reef fish 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 qualitative information on fishermen, fishing-dependent businesses, or communities that depend on the reef fish fishery. With current TAC levels for shallow- and deep-water groupers, as well as closed seasons on gag, red grouper, and greater amberjack, which are the major species in the reef fish fishery, the fishery is only open part of the calendar year. Therefore, most fishermen participate in other fisheries as well, and the communities they live in or support are not specifically "reef fish communities". If there are changes made to the current regulations for the reef fish fishery, it is assumed that the regulations would have the most impact in communities where the most reef fish are landed, the most income from reef fish earned, the most boats are

permitted for reef fish, and where the fishermen who fish for reef fish live. Areas where reef fish play an important role in the community include Pinellas County and Bay County in Florida.

(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- Dec 31, 2010		+	na	+	+	-	na	+	na	+	na
Alt 3- Dec 31, 2015		+	na	+	+	-	na	+	na	+	na
Alt 4- Limit access	x	+	na	+	+	+	na	+	na	+	na

Environmental Assessment (EA) Cover Sheet

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Name of Action

Amendment 24 to the Reef Fish Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico.

Type of Action

(X) Administrative
() Draft

( ) Legislative
(X) Final

Summary

Amendment 17, implemented by the National Marine Fisheries Service (NMFS), or NOAA Fisheries, on August 10, 2000, extended the commercial reef fish permit moratorium for another 5 years, from its previous expiration date of December 31, 2000 to December 31, 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..

Filing Dates with EPA

Notice of Intent to prepare DSEIS published in Federal Register: 2/13/04 (69 FR 7187).

Notice of change to an Environmental Assessment published in Federal Register: 9/3/04 (69 FR 53893).

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 moratorium on the issuance of new reef fish permits, participation has been limited to those vessels that qualified as of May 8, 1992, 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 May 1992. 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 $404,500 to $647,200 (see Sections 4.0 and 7.0). Continuing the limit on access, as would be accomplished under Alternatives 2, 3 or Proposed 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 be no effects on participants in adjacent areas (South Atlantic) from continuing a limit on access because access to reef fish resources is also limited in this area under the South Atlantic Snapper/Grouper Fishery Management Plan.

Under an open access system, which would be established by Alternative 1, participation in the fishery could and likely would increase beyond current levels. Re-opening access could increase effort and most likely would 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 certain communities that are considered to have some dependence on fishing, and identified in Section 6.3.2 and discussed in Section 7.4 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.

1.0 INTRODUCTION

A moratorium on the issuance of new commercial reef fish permits was established in 1992, primarily to address the overfishing of red snapper, and was intended to last for 3 years. Another major purpose of the moratorium, when it was first implemented under Amendment 4 to the Reef Fish Fishery Management Plan (FMP), was to provide a stable environment in the fishery for evaluation and development of a more comprehensive, controlled access system for the entire commercial reef fish fishery. The moratorium was subsequently extended in 1995 through implementation of Amendment 9 that established a 5-year moratorium and again by Amendment 11 that further extended the moratorium until December 31, 2000, thereby providing time for consideration of implementing a limited access system in the reef fish fishery. During this period, the Council developed an individual transferable quota (ITQ) system for red snapper (Amendment 8); however, before it could be implemented, Congress prohibited the implementation of ITQ systems until October 1, 2000. Subsequently, the Council developed and NMFS implemented a license limitation system for red snapper (Amendment 15). Amendment 17 was implemented by NMFS on August 10, 2000, and extended the commercial reef fish permit moratorium for another 5 years, from its previous expiration date of December 31, 2000 to December 31, 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 December 31, 2005, and the reef fish fishery, other than for red snapper, 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 and potentially an increase in effort in the fishery that currently has 1,159 permits. Other alternatives would continue to prevent new participation 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. The alternatives and potential impacts are reviewed and discussed in Section 3.0 of this document.

1.1 Description of the Fishery

Participants in the Gulf of Mexico reef fish fishery primarily target snappers and groupers. Red and gag grouper, red and vermilion snapper, and greater amberjack are the most commonly targeted reef fish species by both commercial and recreational fishermen. The grouper fishery occurs along the northeastern Gulf coast primarily along the west coast of Florida (Turner et al. 2001; SEFSC 2002). The snapper fishery occurs along the northern and western Gulf coast. Louisiana and Texas account for a majority of the commercial snapper landings, while west Florida and Alabama account for a majority of the recreational snapper landings (Schrippa and Legault 1999; Porch and Cass-Calay 2001).

Commercial fishermen utilize a variety of gears to harvest reef fish, including: bottom longline, vertical line gear (handline and bandit gear), fish traps, cast nets, and spearfishing. In the northern Gulf, commercial catches differ by gear with vessels using vertical lines catching primarily snapper (red and vermilion) and vessels using bottom longlines catching primarily deep water groupers. Vessels in the eastern Gulf use bottom longlines, vertical lines, and fish traps to catch primarily groupers. Longline vessels average 42 to 44 feet in length and fish trap vessels average 38 feet in length (GMFMC 2003).

From 1990 through 2003, commercial fishing vessels landed an annual average of 21.0 million pounds (MP) whole weight (WWT) of Gulf reef fish species, with an annual ex-vessel value of $38.7 million[1]. For the same period, the commercial fishery landed an annual average of 8.97 MP WWT of shallow-water grouper, of which 68% was red grouper, 23% was gag, and the rest was other shallow-water grouper species. Deep-water grouper landings averaged 1.32 MP WWT during this same time period, of which 71% was yellowedge grouper. Commercial snapper landings averaged 8.18 MP WWT, of which 48% was red snapper, 25% was vermilion snapper, and 19% was yellowtail snapper. Average annual landings of jacks were 1.65 MP WWT, of which 96% was greater amberjack. The remainder of reef fish landings amounted to an annual average of 0.89 MP or 4% of the total reef fish landings for this period.

Reef fish are also an important part of the recreational fisheries of the Gulf of Mexico. Recreational anglers primarily use rod-and-reel gear; however, spear guns, hand lines, bandit, and powerheads are also used. From 1990 through 2002, an average of 17.9 million private boat and charter fishing trips occurred, of which 3% to 5% targeted Gulf reef fishes. During this time period, recreational anglers harvested greater than 13.0 MP WWT of reef fish annually[2]. Red snapper, gag, red grouper, and greater amberjack were the most commonly harvested reef fish species.

The economic and social characteristics of the participants and the vessels in the reef fish fishery have been described in previous studies and amendments (Waters 1996; Holland et al. 1999; Sutton et al. 1999; GMFMC 2003). Most of the studies focused on either the commercial sector or the recreational sector of the fishery. The recreational sector would not be directly affected by the proposed action and is not discussed herein. The social and economic characteristics of the commercial fishery are discussed in greater detail in Section 4.0.

1.2 History of Management

FMP Amendments and Management Activities Other Than Regulatory Amendments

The Reef Fish FMP was implemented in November 1984 and species included in the fishery management unit (FMU) are listed in Section 6.2. The regulations, designed to rebuild declining reef fish stocks, included: (1) prohibitions on the use of fish traps, roller trawls, and powerhead-equipped spear guns within an inshore stressed area; (2) a minimum size limit of 13 inches total length (TL) for red snapper with the exceptions that for-hire boats were exempted until 1987 and each angler could keep 5 undersize fish; and, (3) data reporting requirements.

The NMFS has collected commercial landings data since the early 1950's, recreational harvest data since 1979, and in 1984 initiated a dockside interview program to collect more detailed data on commercial harvest. The first red snapper assessment in 1988 indicated that red snapper was significantly overfished and that reductions in fishing mortality rates (F) of as much as 60% to 70%

[1] Commercial landings data are from the SEFSC's Accumulated Landings Database. Landings include all waters of the Gulf of Mexico and Monroe County.

[2] Recreational landings data are from the Marine Recreational Fisheries Statistics Survey and Texas Parks and Wildlife Department

were necessary to rebuild red snapper to a recommended 20% spawning stock potential ratio (SPR). The 1988 assessment also identified shrimp trawl bycatch as a significant source of mortality.

Amendment 1, including environmental assessment (EA), regulatory impact review (RIR), and regulatory flexibility analyses (RFA), to the Reef Fish FMP, implemented in 1990, was a major revision of the original FMP. The primary objective of the Reef Fish FMP was to stabilize the long-term population levels of all reef fish species by achieving at least a 20% spawning stock biomass per recruit (SSBR) ratio, relative to the SSBR that would occur with no fishing. The target date for achieving the 20% SSBR goal was set at January 1, 2000. Among the management measures implemented were:

- Set a red snapper 13-inch total length minimum size limit, 7-fish recreational bag limit and 3.1 million-pound commercial quota that together were to reduce fishing mortality by 20% and begin a rebuilding program for that stock;
- Prohibit the sale of undersized red snapper and delete the allowance to keep 5 undersized red snapper;
- Set a 20-inch total length minimum size limit on red Nassau, yellowfin, black, and gag groupers;
- Set a 50-inch total length minimum size limit on goliath grouper (jewfish);
- Set a 5-grouper recreational bag limit;
- Allow a 2-day possession limit for charter vessels and head boats on trips that extend beyond 24 hours, provided the vessel has two licensed operators aboard as required by the U.S. Coast Guard, and each passenger can provide a receipt to verify the length of the trip; All other fishermen fishing under a bag limit are limited to a single day possession limit;
- Set an 11.0 million-pound commercial quota[3] for groupers, with the commercial quota divided into a 9.2 million pound shallow-water grouper quota and a 1.8 million-pound deepwater grouper quota. Shallow-water grouper were defined as black grouper, gag, red grouper, Nassau grouper, yellowfin grouper, yellowmouth grouper, rock hind, red hind, speckled hind, and scamp (until the shallow-water grouper quota is filled). Deep-water grouper were defined as misty grouper, snowy grouper, yellowedge grouper, warsaw grouper, and scamp once the shallow-water grouper quota is filled. Goliath grouper (jewfish) are not included in the quotas;
- Set a 12-inch total length minimum size limit on gray, mutton, and yellowtail snappers;
- Set an 8-inch total length minimum size limit on lane and vermilion snappers;
- Set a 10-snapper recreational bag limit on snappers in aggregate, excluding red, lane, and vermilion snapper;
- Set an 8-inch total length minimum size limit for black sea bass;
- Set a 28-inch fork length minimum size limit and 3 fish per person per day bag limit for recreational harvest of greater amberjack, and a 36-inch fork length minimum size limit of greater amberjack for commercial harvest;
- Establish a framework procedure for specification of total allowable catch (TAC) to allow for annual management changes;

[3] These values have been subsequently modified to correct for revisions adopted in the gutted to whole weight ratio. Historically, the conversion ratio used was 1.18, subsequently, the ratio has been corrected and 1.05 is used. This results in these values being 9.8, 8.2 and 1.6 MP respectively, for total, shallow-water and deep-water grouper quotas (e.g., 11.0 ÷ 1.18 x 1.05 = 9.8). There is no impact on the commercial fishery from the revision as fish have always been reported in gutted weight and those data are transformed to whole weight for NMFS records. Additional changes to the shallow-and deep-water quotas were made with the implementation of Secretarial Amendment 1 as discussed later in this section.

- Establish a longline and buoy gear boundary at approximately the 50-fathom depth contour west of Cape San Blas, Florida and the 20-fathom depth contour east of Cape San Blas, inshore of which the directed harvest of reef fish with longlines and buoy gear was prohibited and the retention of reef fish captured incidentally in other longline operations (e.g., sharks) was limited to the recreational bag limit. Subsequent changes to the longline/buoy boundary could be made through the framework procedure for specification of TAC;
- Limit trawl vessels (other than vessels operating in the unsorted groundfish fishery) to the recreational size and bag limits of reef fish;
- Establish fish trap permits, allowing up to a maximum of 100 fish traps per permit holder;
- Prohibit the use of entangling nets for directed harvest of reef fish. Retention of reef fish caught in entangling nets for other fisheries is limited to the recreational bag limit;
- Establish the fishing year to be January 1 through December 31;
- Extend the stressed area to the entire Gulf coast;
- Establish a commercial reef fish vessel permit.

Amendment 2, including EA, RIR, and RFA, implemented in 1990, prohibited the harvest of goliath grouper (jewfish) to provide complete protection for this species in federal waters in response to indications that the population abundance throughout its range was greatly depressed. This amendment was initially implemented by emergency rule.

Amendment 3, including EA and RIR, implemented in July 1991, provided additional flexibility in the annual framework procedure for specifying TAC by allowing the target date for rebuilding an overfished stock to be changed depending on changes in scientific advice, except that the rebuilding period cannot exceed 1.5 times the generation time of the species under consideration. It revised the FMP's primary objective, definitions of optimum yield (OY) and overfishing and framework procedure for TAC by replacing the 20% SSBR target with 20% SPR. The amendment also transferred speckled hind from the shallow-water grouper quota category to the deepwater grouper quota category.

Amendment 4, including EA, RIR, and Initial Regulatory Flexibility Analysis (IRFA), implemented in May 1992, established a moratorium on the issuance of new reef fish permits for a maximum period of three years. The moratorium was created to moderate short-term future increases in fishing effort and to attempt to stabilize fishing mortality while the Council considers a more comprehensive effort limitation program. It allows the transfer of permits between vessels owned by the permittee or between individuals when the permitted vessel is transferred. Amendment 4 also changed the time of the year that TAC is specified from April to August and included additional species in the reef fish management unit.

Amendment 5, including a supplemental environmental impact statement (SEIS), RIR, and IRFA, implemented in February 1994, established restrictions on the use of fish traps in the Gulf of Mexico exclusive economic zone (EEZ), implemented a three-year moratorium on the use of fish traps by creating a fish trap endorsement and issuing the endorsement only to fishermen who had submitted logbook records of reef fish landings from fish traps between January 1, 1991 and November 19, 1992, created a special management zone (SMZ) with gear restrictions off the Alabama coast, created a framework procedure for establishing future SMZ's, required that all finfish except for oceanic migratory species be landed with head and fins attached, and closed the region of Riley's

Hump (near Dry Tortugas, Florida) to all fishing during May and June to protect mutton snapper spawning aggregations.

Amendment 6, including EA, RIR, and IRFA, implemented in June 1993, extended the provisions of an emergency rule for red snapper endorsements for the remainder of 1993 and 1994, and it allowed the red snapper trip limits for qualifying and non-qualifying permitted vessels to be changed under the framework procedure for specification of TAC.

Amendment 7, including EA, RIR, and IRFA, implemented in February 1994, established reef fish dealer permitting and record keeping requirements, allowed transfer of fish trap permits and endorsements between immediate family members during the fish trap permit moratorium, and allowed transfer of other reef fish permits or endorsements in the event of the death or disability of the person who was the qualifier for the permit or endorsement. A proposed provision of this amendment that would have required permitted vessels to sell harvested reef fish only to permitted dealers was disapproved by the Secretary of Commerce and was not implemented.

Amendment 8, including EA, RIR, and IRFA, proposed establishment of a red snapper ITQ system. It was approved by NMFS and final rules were published in the *Federal Register* on November 29, 1995. However, concerns about Congressional funding of the ITQ system made it inadvisable for the ITQ system to become operational, pending Congressional action. In October 1996, Congress, through reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (M-SFCMA), repealed the red snapper ITQ system and prohibited councils from submitting, or NMFS from approving and implementing, any new individual fishing quota program before October 1, 2000.

Amendment 9, including EA, RIR, and IRFA, implemented in July 1994, provided for collection of red snapper landings and eligibility data from commercial fishermen for the years 1990 through 1992. The purpose of this data collection was to evaluate the initial impacts of the limited access measures being considered under Amendment 8 and to identify fishermen who may qualify for initial participation under a limited access system. This amendment also extended the reef fish permit moratorium and red snapper endorsement system through December 31, 1995, in order to continue the existing interim management regime until longer term measures can be implemented. The Council received the results of the data collection in November 1994, at which time consideration of Amendment 8 resumed.

Withdrawn **Amendment 10**, including EA, RIR, and IRFA, would have extended the validity of additional fish trap endorsements for the duration of the fish trap moratorium that was implemented under Amendment 5. These additional endorsements were to have been issued under an emergency rule, requested in March 1994, to alleviate economic hardships after the Council heard from fishermen who entered the fish trap fishery after the November 19, 1992, cutoff date and stated that they were unaware of the impending moratorium. The Council rejected the proposed amendment in May 1994 after NMFS stated that it had notified fishermen of the pending moratorium and fish trap endorsement criteria. The Council also considered arguments that the change in qualifying criteria circumvented the intent of the fish trap moratorium to halt expansion of the fish trap fishery at the November 19, 1992, level. After the Council rejected Amendment 10, NMFS subsequently rejected the emergency request.

Amendment 11, including EA, RIR, and IRFA, was partially approved by NMFS and implemented in January 1996. The six approved provisions are: (1) limit sale of Gulf reef fish by permitted vessels to permitted reef fish dealers; (2) require that permitted reef fish dealers purchase reef fish caught in Gulf federal waters only from permitted vessels; (3) allow transfer of reef fish permits and fish trap endorsements in the event of death or disability; (4) implement a new reef fish permit moratorium for no more than five years or until December 31, 2000, while the Council considers limited access for the reef fish fishery; (5) allow permit transfers to other persons with vessels by vessel owners (not operators) who qualified for their reef fish permit; and, (6) allow a one time transfer of existing fish trap endorsements to permitted reef fish vessels whose owners have landed reef fish from fish traps in federal waters, as reported on logbooks received by the Science and Research Director of NMFS from November 20, 1992, through February 6, 1994. NMFS disapproved a proposal to redefine OY from 20% SPR (the same level as overfishing) to an SPR corresponding to a fishing mortality rate of F0.1 until an alternative operational definition that optimizes ecological, economic, and social benefits to the Nation could be developed. In April 1997, the Council resubmitted the OY definition with a new proposal to redefine OY as 30% SPR. The resubmission document was disapproved by NMFS.

Amendment 12, including EA, RIR, and IRFA, implemented in January 1997, reduced the greater amberjack bag limit from three fish to one fish per person, and created an aggregate bag limit of 20 reef fish for all reef fish species not having a bag limit.

Amendment 13, including EA, RIR and IRFA, implemented in September 1996, further extended the red snapper endorsement system through the remainder of 1996 and, if necessary, through 1997, in order to give the Council time to develop a permanent limited access system that was in compliance with the new provisions of the M-SFCMA.

Amendment 14, including EA, RIR, and IRFA, implemented in March and April 1997, provided for a ten-year phase-out for the fish trap fishery; allowed transfer of fish trap endorsements for the first two years and thereafter only upon death or disability of the endorsement holder, to another vessel owned by the same entity, or to any of the 56 individuals who were fishing traps after November 19, 1992, and were excluded by the moratorium; and prohibited the use of fish traps west of Cape San Blas, Florida. The amendment also provided the Regional Administrator (RA) of NMFS with authority to reopen a fishery prematurely closed before the allocation was reached, and modified the provisions for transfer of commercial reef fish vessel permits. In addition, the amendment prohibited the harvest or possession of Nassau grouper in the Gulf EEZ, consistent with similar prohibitions in Florida state waters, the south Atlantic EEZ, and the Caribbean EEZ.

Amendment 15, including EA, RIR, and IRFA, implemented in January 1998, prohibited harvest of reef fish from traps other than permitted reef fish traps, stone crab traps, or spiny lobster traps.

Amendment 16A, including EA, RIR, and IRFA, submitted to NMFS in June 1998, was partially approved and implemented on January 10, 2000. The approved measures provided: (1) that the possession of reef fish exhibiting the condition of trap rash on board any vessel with a reef fish permit that is fishing spiny lobster or stone crab traps is prima facie evidence of illegal trap use and is prohibited except for vessels possessing a valid fish trap endorsement; (2) that NMFS establish a system design, implementation schedule, and protocol to require implementation of a vessel

monitoring system (VMS) for vessels engaged in the fish trap fishery, with the cost of the vessel equipment, installation, and maintenance to be paid or arranged by the owners as appropriate; and, (3) that fish trap vessels submit trip initiation and trip termination reports. Prior to implementing this additional reporting requirement, there was a one-month fish trap inspection/compliance/education period, at a time determined by the NMFS RA and published in the *Federal Register*. During this window of opportunity, fish trap fishermen were required to have an appointment with NMFS enforcement for the purpose of having their trap gear, permits, and vessels available for inspection. The disapproved measure was a proposal to prohibit fish traps south of 25.05 degrees north latitude beginning February 7, 2001. The status quo 10-year phase-out of fish traps in areas in the Gulf EEZ was therefore maintained.

Amendment 16B, including EA, RIR, and IRFA, was submitted to NMFS in January 1999, and was implemented by NMFS on November 24, 1999. This amendment set a recreational bag limit of one speckled hind and one warsaw grouper per vessel, with the prohibition on the sale of these species when caught under the bag limit.

Amendment 17, including EA, RIR, and IRFA, was submitted to NMFS in September 1999, and was implemented by NMFS on August 10, 2000. This amendment extended the commercial reef fish permit moratorium for another five years, from its previous expiration date of December 31, 2000, to December 31, 2005, unless replaced sooner by a comprehensive controlled access system. The purpose of the moratorium is to provide a stable environment in the fishery necessary for evaluation and development of a more comprehensive controlled access system for the entire commercial reef fish fishery.

Amendment 18, including SEIS, RIR, and IRFA, is currently under development and is only at the options paper stage.

Amendment 19, including a final SEIS, RIR, and IRFA, also known as the Generic Amendment Addressing the Establishment of the Tortugas Marine Reserves, was submitted to NMFS in March 2001, and was implemented on August 19, 2002. This amendment, affecting all FMPs for the Gulf fisheries (Amendment 19 to the Reef Fish FMP), establishes two marine reserve areas off the Tortugas area and prohibits fishing for any species and anchoring by fishing vessels inside the two marine reserves.

Amendment 20, including EA, RIR, and IRFA, also known as the Corrected Charter/Headboat Moratorium Amendment, affects the Reef Fish FMP (Amendment 20) and the Coastal Pelagic FMP (Amendment 14). This amendment established a 3-year moratorium on the issuance of new charter and headboat vessel permits in the recreational for hire fisheries in the Gulf EEZ. The amendment was approved by NMFS, and the provisions to determine eligibility and distribute moratorium permits were implemented on July 29, 2002, with the moratorium originally scheduled to become effective on December 26, 2002. However, on December 17, 2002, NMFS published an emergency action that deferred the date when "moratorium" charterboat permits would be required from December 26, 2002, until June 16, 2003. This action was required because the final rule implementing the for-hire permit moratorium contained an error regarding eligibility that needed to be resolved before the moratorium could take effect. The purpose of this moratorium was to limit future expansion in the recreational for-hire fishery while the Council monitored the impact of the moratorium and considered the need for a more comprehensive effort management system in the

for-hire recreational fishery. The Council set a qualifying cutoff date of March 29, 2001, in order to include all currently permitted vessels and vessels which have applied for a permit as of that date. The qualifying provisions also included persons who had a recreational for-hire vessel under construction prior to March 29, 2001, and who could show expenditures of at least five thousand dollars. In addition, persons who met the eligibility requirements to qualify as a historical captain (United States Coast Guard [USCG] licensed and operating as a captain of a for-hire vessel prior to March 29, 2001, will qualify for a permit within 90 days of the final rule, and at least 25% of earned income was from recreational for-hire fishing in one of the last four years ending March 29, 2001) were issued a letter of eligibility, which can be replaced by a permit/endorsement valid only on the vessel that is operated by the historical captain.

Amendment 21, including EA, RIR, and IRFA, implemented on June 3, 2004 continued a fishing closure that had previously been implemented by a regulatory amendment of the Madison and Swanson Sites and Steamboat Lumps as defined in 50 CFR, Part 622.34(k) with some changes. This amendment prohibits all fishing in these areas from November through April of each year; however, vessels would be allowed to transit the area if all fishing gear is properly stored. From May through October of each year, vessels would be allowed to use only surface trolling gear to harvest coastal migratory pelagics and highly migratory species in these areas.

Amendment 22 , including SEIS, RIR, and IRFA, was submitted to NMFS in June 2004. It contains a red snapper rebuilding plan, sets the Sustainable Fisheries Act (SFA) parameters (maximum sustainable yield [MSY], optimum yield [OY], maximum fishing mortality threshold [MFMT], and minimum stock size threshold [MSST]) for red snapper, and sets bycatch reporting methodologies for the permitted reef fish fisheries.

Amendment 23 , including SEIS, RIR, and IRFA, was submitted to NMFS in November 2004. It contains a rebuilding plan, measures to reduce harvest in the commercial and recreational fisheries consistent with harvest levels needed by the rebuilding plan, and sets the SFA parameters (MSY, OY, MFMT, and MSST) for vermilion snapper.

Secretarial Amendments

Section 304(c)(1) and Section 304 (e)(5) of the M-FCMA provide for circumstances under which the Secretary of Commerce may prepare a fishery management plan or amendment. The following amendments have been developed as Secretarial Amendments to the Reef Fish FMP in conjunction with the Council.

Secretarial Amendment 1, including an EA, RIR, and FRFA, implemented in July 2004, established biological reference points and stock status determination criteria for the red grouper stock in U.S. waters of the Gulf of Mexico as follows:

Biological Reference Points and Status Determination Criteria:

MSY	7.560 million pounds (MP)
F_{MSY}	0.306
SS_{MSY}	840 metric tons mature female gonad weight
MSST	80% (1-M where M=0.2) of SS_{MSY} (currently estimated by proxy to be 672 metric tons mature female gonad weight)
MFMT	F_{MSY} (currently estimated at 0.306), or the F consistent with recovery to the MSY level in no more than 10 years.
OY	The yield obtained from a fishing mortality rate equal to 75% of F_{MSY} (currently estimated to be 7.385 MP gutted weight at equilibrium)

It also established a 10-year red grouper rebuilding plan based on a three-year-interval rebuilding strategy with a commercial shallow-water grouper quota of 8.80 MP gutted weight (GW) and a red grouper quota of 5.31 MP (GW). A tilefish quota of 0.44 MP (GW) and a deep-water grouper quota of 1.02 MP (GW) were included. It also included provisions that the commercial fisheries would be closed when the respective quotas are reached. The recreational fishery was also limited to a 2-fish red grouper bag limit within the 5-fish aggregate bag limit for grouper.

Secretarial Amendment 2, including EA, RIR, and RFA, was submitted to NMFS in November 2002, and implemented on June 17, 2003. It specified MSY, OY, MFMT, and MSST levels for greater amberjack in compliance with the M-SFCMA, and established a rebuilding plan for greater amberjack based on 3-year intervals. No specific regulatory changes were proposed in this amendment.

Framework Seasonal Adjustments (Regulatory Amendments):

A July 1991 regulatory amendment, including EA and RIR, implemented November 12, 1991, provided a one-time increase in the 1991 quota for shallow-water groupers from 9.2 MP to 9.9[4] MP. This action was taken to provide the commercial fishery an opportunity to harvest 0.7 MP that went unharvested in 1990 due to an early closure of the fishery in 1990. NMFS had projected the 9.2 million-pound quota to be reached on November 7, 1990, but subsequent data showed that the actual harvest was 8.5 MP.

A November 1991 regulatory amendment, including EA, RIR, and IRFA, implemented June 22, 1992, raised the 1992 commercial quota for shallow-water groupers to 9.8 MP (using the corrected GW to WWT conversion factor of 1.05, see footnote 1), after a red grouper stock assessment indicated that the red grouper SPR was substantially above the Council's minimum target of 20%, and the Council concluded that the increased quota would not impinge on the long-term viability of the red grouper stock.

A September 1993 regulatory amendment, including EA, RIR, and IRFA, was prepared that would have moved the longline and buoy gear restricted area boundary off central and south-central Florida inshore from the 20 fathom isobath to the 15 fathom isobath for a one-year period beginning January 1, 1994. However, longline industry representatives requested that the amendment not be submitted

[4] The corrected 1991 quota, using the revised conversion factor, was 8.8 MP. The corrected 1990 actual harvest was 7.6 MP.

due to concerns that it would lead to a quota closure. In addition, the NMFS' Southeast Fisheries Science Center (SEFSC) expressed concern that there were inadequate experimental controls to properly evaluate the impact of the action. Consequently, this amendment was not submitted.

An October 1993 regulatory amendment, including EA, RIR and RFA, implemented January 1, 1994, set the opening date of the 1994 commercial red snapper fishery as February 10, 1994, and restricted commercial vessels to landing no more than one trip limit per day. The shallow-water grouper regulations were also evaluated but no change was made. The shallow-water grouper TAC, which previously had only been specified as a commercial quota, was specified as a total harvest of 15.1 MP (with 9.8 MP allocated to the commercial quota) and 20-inch TL minimum size limit for gag, red, Nassau, yellowfin, and black grouper.

A rejected December 1994 regulatory amendment, including EA, RIR and IRFA, would have reduced the minimum size limit for red grouper from 20 inches TL to 18 inches TL in response to complaints from the commercial sector that regulations were too restrictive to allow them to harvest their quota of shallow water grouper. The NMFS rejected the proposed action because of concern that it would result in the recreational sector exceeding its allocation. In March 1995 a revised regulatory amendment was submitted to NMFS that would reduce the red grouper size limit to 18 inches for only the commercial sector. That regulatory amendment was rejected by NMFS because newly discovered biases in the growth rate data collected in recent years resulted in uncertainty about the current status of the red grouper stock. Further analysis by NMFS biologists and the RFSAP reduced that uncertainty to the point where the status of red grouper stocks was determined to be most likely at or above 27% SPR, well above the overfishing threshold.

In September 1995 a second revised regulatory amendment, including EA, RIR and IRFA, was submitted to NMFS to reduce the commercial red grouper size limit to 18 inches. This second revision was rejected by NMFS because they felt it would create user conflicts, produce long term economic losses to commercial fishermen, allow the harvest of juvenile fish, and potentially lead to the commercial quota being filled early and create a derby fishery.

An August 1999 regulatory amendment, including EA, RIR and IRFA, implemented June 19, 2000, increased the commercial minimum size limit for gag from 20 to 24 inches TL, increased the recreational minimum size limit for gag from 20 to 22 inches TL, prohibited commercial sale of gag, black, and red grouper each year from February 15 to March 15 (during the peak of gag spawning season), and established two marine reserves on areas suitable for gag and other reef fish spawning aggregations sites that are closed year-round to fishing for all species under the Council's jurisdiction. The two sites cover 219 square nautical miles near the 40-fathom contour, off west central Florida. An additional proposal to continue increasing the recreational minimum size limit for gag and black grouper by one inch per year until it reached 24 inches TL was rejected by NMFS because it was felt that it would have a disproportionate impact on the recreational fishery vs. the commercial fishery.

Control Date Notices

Control date notices are used to inform fishermen that a license limitation system or other method of limiting access to a particular fishery or fishing method is under consideration. If a program to limit access is established, anyone not participating in the fishery or using the fishing method by the published control date may be ineligible for initial access to participate in the fishery or to use that fishing method. However, a person who does not receive an initial eligibility may be able to enter the fishery or fishing method after the limited access system is established by transfer of the eligibility from a current participant, provided the limited access system allows such transfer. Publication of a control date does not obligate the Council to use that date as an initial eligibility criteria. A different date could be used, and additional qualification criteria could be established. The announcement of a control date is primarily intended to discourage entry into the fishery or use of the gear based on economic speculation during the Council's deliberation on the issues. The following summarizes control dates that have been established for the Reef Fish FMP. A reference to the full *Federal Register* notice is included with each summary.

November 1, 1989 - Anyone entering the commercial reef fish fishery in the Gulf of Mexico and South Atlantic after November 1, 1989, may not be assured of future access to the reef fish resource if a management regime is developed and implemented that limits the number of participants in the fishery. (54 FR 46755)

November 18, 1998 - The Council is considering whether there is a need to impose additional management measures limiting entry into the recreational-for-hire (i.e., charter vessel and headboat) fisheries for reef fish and coastal migratory pelagic fish in the EEZ of the Gulf of Mexico and, if there is a need, what management measures should be imposed. Possible measures include the establishment of a limited entry program to control participation or effort in the recreational-for-hire for reef fish and coastal migratory pelagics. (63 FR 64031) (In the Charter/Headboat Moratorium Amendment, approved by the Council for submission to NMFS in March 2001, a qualifying date of March 29, 2001, was adopted.)

July 12, 2000 - The Council is considering whether there is a need to limit participation by gear type in the commercial reef fish fisheries in the EEZ of the Gulf of Mexico and, if there is a need, what management measures should be imposed to accomplish this. Possible measures include modifications to the existing limited entry program to control fishery participation, or effort, based on gear type, such as a requirement for a gear endorsement on the commercial reef fish vessel permit for the appropriate gear. Gear types which may be included are longlines, buoy gear, handlines, rod-and-reel, bandit gear, spearfishing gear, and powerheads used with spears.

2.0 PURPOSE AND NEED FOR ACTION

Action is needed if the Council intends to either extend the existing moratorium on the issuance of commercial vessel permits for reef fish beyond December 31, 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; it could also cause an increase in fishing effort. Maintaining the moratorium or replacing it with a limited access system would cap participation that might be reduced through attrition.

The purpose of this amendment is to provide for social and economic stability in the reef fish fishery by continuing to cap participation in the fishery at current levels. The cap on additional participation is an integral part of the overall management strategy to achieve OY and maximize the overall benefits to the Nation of the reef fish fishery in the Gulf of Mexico. Such management has resulted in rebuilding of some stocks, (e.g., red grouper), and the prevention of other stocks from falling below MSST levels that would result in stocks being declared as overfished (e.g., gag). Allowing the existing moratorium to lapse would constitute a major change in the overall management strategy for this multi-species fishery.

Allowing the current reef fish permit moratorium to expire would probably result in added participants to the fishery. Since the implementation of the reef fish permit moratorium, the number of permits has declined from approximately 1,718 in 1993 to approximately 1,129 in 2004. By maintaining the moratorium or establishing a permanent license limitation system, added fishing effort could only come from current participants. Their past, present, and future participation in the fishery could be captured by existing data collection programs, and examined for purposes of designing future controlled access programs, if such programs are deemed to be needed and desirable. On the other hand, current information indicates that the existing 1,129 permit holders can generate more than enough fishing effort to harvest the available reef fish resources in the Gulf of Mexico. The Council is addressing the potential for reducing this latent effort through an amendment that would establish a reef fish IFQ. Although the number of permits has dropped over the past 12 years, the current permits have value and may be freely transferred. At least some "would-be" participants have not had the ability to purchase these permits; however, if the fishery were to revert to open access new entrants would be able to enter at very low cost.

An increase in participation could cause the need for greater restrictions in the commercial reef fish fishery through trip limits, additional hard quotas, or longer closed seasons. Three stocks in the Reef Fish FMP management unit for which harvest is allowed (red snapper, vermilion snapper, and greater amberjack) are classified as overfished. Red grouper are classified as undergoing overfishing, and gag have previously been classified as approaching an overfished condition. Greater amberjack are under a rebuilding plan (Secretarial Amendment 2), and a plan to end overfishing for red grouper has been approved (Secretarial Amendment 1). Rebuilding plans for red snapper (Amendment 22) and vermilion snapper (Amendment 23) have been submitted to NMFS for approval.

As previously stated, allowing the moratorium to expire could increase effort on some reef fish stocks; however, such an increase would not necessarily result in additional harvest and associated negative biological impacts. There are currently a hard quotas on the harvest of shallow- and deep-water grouper, red grouper, and red snapper. For the fishery, these are the most important commercial reef fish species. It is unlikely that new commercial participants could rely on harvest of reef fish species other than grouper and maintain economically viable operations because approximately 70% of the total reef fish catch is made up of species that are governed by hard quotas. Consequently, the biological impacts of reverting to open access are not expected to be significant (see Section 7.2). However, lack of action to maintain a cap on 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. Current participants would also have little opportunity to make up a loss of harvest by switching to other fisheries due to the fact that king mackerel, shark, tuna, and other offshore fisheries in the Gulf and South Atlantic are also managed

using permit moratoria, unless reef fish permit holders already possess these other permits or are willing to purchase them.

3.0 MANAGEMENT ALTERNATIVES

Action: Alternatives to maintain the commercial reef fish fishery at current levels of participation and possible reductions through attrition.

ALTERNATIVE 1: No Action - After December 31, 2005, the commercial reef fish permit moratorium will expire. There will be no limit on the number of commercial reef fish 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 reef fish permit moratorium for another 5 years to expire on December 31, 2010. Such permits will be renewable and transferable in the same manner as currently prescribed.

ALTERNATIVE 3: Extend the commercial reef fish permit moratorium for another 10 years to expire on December 31, 2015. Such permits will be renewable and transferable in the same manner as currently prescribed.

PROPOSED ALTERNATIVE 4: Establish a limited access system for the commercial fishery for Gulf reef fish. All vessels with valid permits on the date that this amendment is approved will be issued a commercial reef fish permit, and permits will be renewable and transferable in the same manner as currently prescribed for such permits.

Discussion: The current moratorium only applies to the commercial reef fish fishery. If an extension to the existing moratorium or a permanent limited access system is not established (Alternative 1), the fishery will revert to open access with the likelihood of increased participation. If this "no action" alternative is proposed, this amendment is unnecessary. Such inaction could result in increased effort that could jeopardize the Council's ability to manage this fishery to achieve OY as prescribed by the M-SFCMA and cause a reduction in the overall benefits of this fishery to the Nation. Because the majority of the reef fish species in the fishery of the Gulf are managed using hard quotas (shallow-water grouper, red grouper, deep-water grouper, tilefish, and red snapper), there would be a cap on the amount of increase in commercial harvest that could occur as a result of the fishery returning to open access. Although previous shallow-and deep-water grouper quotas have rarely been met, revised quotas implemented in July 2004 have been met with the existing number of permittees. Reverting to open access would probably result in increased participants that would probably result in earlier closures of these fisheries. Since these grouper stocks are the dominant part of the reef fish fishery, other than red snapper, it is unlikely that viable operations could be maintained for other reef fish species once these quotas are met, thus biological impacts would be expected to be minimal. However, social and economic impacts from the open access alternative such as quota closures would probably be more substantial. The potential social and economic impacts of such action are discussed in Sections 3.0, 4.0, and 7.0 of this amendment.

The choice of Alternatives 2 or 3 would maintain the current management regime and continue the moratorium on the issuance of new reef fish permits for a 5-year or 10-year period, respectively. Because these alternatives would set a finite period for continuing the moratorium, it is implied that after such time, the Council would be faced with the same choices as addressed in this amendment, i.e., either let the moratorium expire, continue it for some period, or replace it with some form of limited access. Such choices could necessitate preparation of an additional amendment and increase the administrative burden.

On the other hand, Table 1 shows that the number of active permits has declined from approximately 1,718 in 1993 to 1,129 in 2004. This reduction could be indicative of a decline in the overall interest in commercial finfish fishing that could continue into the future. If this occurs, setting a finite expiration date for the moratorium, as with Alternatives 2 and 3, may not be necessary. The same may also be said for establishing a limited access system as with Proposed Alternative 4.

Perhaps a more likely scenario would be that the industry has been stabilizing, and the reduction in permits has come from lapse of unused permits over time. Because reef fish permits have value and may be transferred without restrictions, individuals wishing to exit the fishery are more likely to sell their permits than simply let them expire. 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 are not used in hopes that future management actions would reinstate an access closure. 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 limited access system (Proposed Alternative 4). Such action would allow the Council to continue to monitor the fishery to determine if the reduction in the number of valid permits continues or has stabilized.

The choice of Proposed Alternative 4 would appear to provide the greatest flexibility to management because it maintains a license cap for an indefinite period of time. This indefinite cap is preferable for 2 reasons. First, although the number of commercial reef fish permits has declined over the 11-year period from 1,718 in 1993 to 1,129 in 2004, there is still a significant number of vessels with very little or no reported landings (Table 3 and 4). Additionally, the rate of decline appears to have slowed in recent years. Consequently, even if the decline continues it is likely that there will continue to be a surplus in effort to harvest the available reef fish resources beyond the 5- or 10-year finite periods under Alternatives 2 and 3, respectively. Because it is likely that the cap on participants will be needed beyond these 5- or 10-year periods, Proposed Alternative 4 would preclude the need to develop an additional amendment to continue the limit on access, thus saving administrative resources for other management activities. Second, the Council's 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 ITQs. Since the Council is strongly considering an IFQ strategy for the grouper fishery and later for the remainder of the reef fish species, Proposed Alternative 4 would provide the 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 Proposed Alternative 4 existing permits would simply become limited access 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 Proposed Alternative 4 continue the prohibition on the issuance of new commercial reef fish permits. The impacts of initially establishing this moratorium and previous actions to continue it are described in Amendments 4, 9, 11, and 17. An analysis of the continuation of this limit on access via this amendment 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: 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 a license limitation system are not expected to create any significant adverse biological impacts. Allowing the moratorium to expire (Alternative 1) could result in increased effort and catch. Such increases that could result from a decision to allow the moratorium to expire could have indirect effects on reef fish and the surrounding ecosystem. The indirect effects associated with this decision (Alternative 1) could be adverse, but not significant because the majority of the commercially important reef fish species (shallow- and deep-water grouper, red snapper, and tilefish) are managed through hard quotas. Consequently, catch of these species would be capped at these levels through closure of the fishery for these stocks and not result in overfishing. Furthermore, it is doubtful that a viable reef fish fishery could continue following a closure of the fisheries for grouper because the other reef fish stocks constitute such a small portion of the overall commercial catch (approximately 30%) (Table 1). Furthermore, commercial landings data show no significant increases in annual landings of nongrouper species since 2000 when a February 15 to March 15 closure of the commercial gag, red, and black grouper fishery occurred (Strelcheck 2004). Consequently, allowing additional participants to enter the fishery would not significantly increase fishing mortality; it would only spread F over a larger number of fishermen (see Section 7.2). If this occurs, fishing seasons may close and even get shorter over time. Any biological effects of open access and an increase in the number of participants would be constrained to primarily the difference in the actual catch of groupers and the allowable shallow- and deep-water quotas, which having been recently revised downward and have been met by the existing number of participants.

There is a remote possibility of overruns due to problems with effectively counting catches and closing the fishery in a timely manner as a result of an increase in participation. However, in recent years the system for other fisheries has worked well and closures have been implemented either prior to quotas being reached or very near the target level. Reduced enforcement effectiveness as a result of an increased number of participants could also exacerbate the problem of overruns of the commercial allocations of TAC. However, any such problems are not expected to be significant, and early closures may also allow management and enforcement resources to be diverted to other problems. Finally, there is a potential for increased bycatch, primarily in the form of regulatory discards, if reef fish fishing activities continue for species other than those subject to quota closures. Such actions and interactions are not expected to be significant because there are few other stocks (e.g. yellowtail snapper, trigger fish, vermilion snapper, and amberjacks) that could be targeted and caught. As

previously discussed, these species constitute only approximately 30% of the total catch, and it is doubtful that economically viable trips could be accomplished for these stocks.

The indirect effects of Alternatives 2, 3, or Proposed Alternative 4 are expected to be beneficial because those alternatives would prevent participation in the fishery from increasing above current levels. Consequently, they would prevent any potential for significant, adverse biological impacts associated with the no action Alternative 1. However, such benefits, if any, would be insignificant because they would only maintain the current prohibition on issuing new permits, and there are currently (2003) approximately 352 permitted vessels that do not have landings of reef fish (Tables 3 and 4). If these permitees became active participants, they would only attenuate reductions from attrition.

In summary, eliminating or continuing the moratorium on commercial reef fish permits or establishing a limited access system is an administrative action. Either choice would not result in direct biological impacts; however, there could be minimal indirect impacts as discussed above.

Socioeconomic Impacts: The operation of a fishery under open or limited access affects total participation in the fishery, which influences applied effort and subsequent levels of profit and net benefits in the fishery. Under the current moratorium, participation is limited to those vessels already permitted to operate in the fishery or prospective participants that purchase a permit from an existing vessel. Should participants allow their permits to expire rather than transfer them to a new entity, total participation can either remain constant or decline. No net increase in participation is possible. In fact, as discussed in Section 4.0, total participation in the fishery has declined since the permit moratorium was implemented in 1992. Under a limited access system, economic efficiencies could be enhanced and the economic performance of the fishery improved. Producer surplus in 2003 is estimated at $404,500 to $647,200. Continuing the moratorium, as would be accomplished under Alternatives 2 and 3 or establishing a limited access system via Proposed Alternative 4, would continue the restrictions on participation and support the continued enhanced economic performance of the fishery.

Under the open access system that 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 4). Entry would not be limited to the replacement of exiting participants. Under open access systems, participants , and more importantly, effort, 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. More detailed analyses of the socioeconomic effects of limiting access to the Gulf reef fish fishery can be found in Sections 4.0 and 7.0.

4.0 REGULATORY IMPACT REVIEW

4.1 Introduction

The NMFS (NOAA Fisheries) requires a 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 Amendment are presented in Section 2.0 and are incorporated herein by reference. In summary, the purpose for this amendment is to provide for social and economic stability in the reef fish fishery by continuing to cap participation in the fishery at current levels. The cap on additional effort in the form of new participants is an integral part of the overall management strategy to achieve OY and maximize the overall benefits to the Nation of the reef fish fishery in the Gulf of Mexico. Such management, which includes a cap on effort, has resulted in rebuilding of some stocks, preventing some stocks from reverting to an overfished state, and maintaining populations above minimum stock size thresholds for yet others (see Section 6.2.2). Allowing the existing moratorium to lapse would constitute a major change in the overall management strategy for this multi-species fishery.

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, charter boat fishermen, and private anglers. However, this information generally does not exist for the fisheries covered by the proposed action. Therefore, the impacts of the approved action are described in terms of the number of affected vessels and trips, and gross revenue for vessels and trips from commercial fishing.

In addition to changes in the surpluses mentioned above, the public and private costs associated with the process of developing and enforcing regulations on fishing for reef fish in waters of the U.S. Gulf of Mexico are provided in this RIR.

4.4 Description of the Commercial Fisheries

4.4.1 History and Current Status

This amendment provides for a choice to continue the moratorium, establish a limited access system, or allow the commercial fishery for Gulf reef fish to revert to open access. A market-based limit on access was promulgated under Amendment 4 to the Reef Fish FMP in May 1992, and extended via Amendments 9 (July 1994), 11 (January 1996) and 17 (August 2000) through December 31, 2005. 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 decrease the number of participating vessels in a 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 May 1992, other regulations in the fishery may have a greater effect on determining how and when commercial fishing for Gulf reef fish will occur in the future, regardless of whether the fishery operates under limited or open access. These regulations were determined necessary during the past twenty years to rebuild stocks and control fishing mortality. 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.

4.4.1.1 Overfished Stocks and Stocks Undergoing Overfishing

Given the status of stocks and the importance to both fishing sectors, the Reef Fish FMP has numerous regulations for many of the species in the Gulf reef fish management unit, including among others, commercial trip limits, recreational bag limits, minimum size limits, seasonal (spawning) closures, area-based (marine reserve) fishing prohibitions, restricted areas (for certain gear), stressed areas, specifications for allowable gear, and limitations on the use of certain gear (traps, including a 10-year phase out starting in 1997; application of recreational size and bag limits for vessels using trawl gear). The FMP requires fishery closures based on quota monitoring for the commercial sector when the commercial quota is harvested (“hard quotas”). Commercial quotas were established for shallow-water and deep-water groupers, as well as red snapper (GMFMC 1990, 2004).

Currently, three stocks in the reef fish FMU for which fishing is allowed are classified as overfished: red snapper, vermilion snapper, and greater amberjack. Red grouper are classified as undergoing overfishing, and gag have previously been classified as approaching an overfished condition A rebuilding plan for the greater amberjack stock (Secretarial Amendment 2) was implemented in 2003, and proposed rebuilding plans for the red snapper (Amendment 22) and vermilion snapper (Amendment 23) stocks are currently under review.

Additionally, the actions proposed in Secretarial Amendment 2 would end overfishing on the red grouper stock.

As shown in Table 1, four of these species accounted for 70% of the $426 million in estimated real ex-vessel value (11-year sum in 2001 dollars) for all logbook-reported landings by vessels with permits for commercial fishing for Gulf reef fish in 1993 to 2003: red grouper, 25.4%; red snapper, 23.0%; gag grouper, 12.1%; and vermilion snapper, 9.6%. As shown in Figures 1 through 4, recreational landings are significant for red snapper, gag, greater amberjack, and king mackerel.

Greater amberjack are among the top-10 species listed in Table 1 and landings by the recreational and commercial sectors have been lower than in the early 1990s (Figure 5). Greater amberjack were placed under a rebuilding plan in June 2003 (Secretarial Amendment 2). It is reported that a seasonal (March-May) commercial fishery closure introduced in 1998 led to intermittent supplies to the market and that seafood distributors turned to imported dolphin fish (mahi-mahi) to use in place of missing supplies of greater amberjack from the Gulf fishery. Market competition from imported mahi-mahi could explain an apparent reversal in an upward trend in real ex-vessel prices for Gulf and South Atlantic greater amberjack (Table 2; in 2001 dollars, Gulf prices were $0.68 a pound in 1986, $1.15 in 1999 and $0.88 in 2003).

In the early 1990s, another FMP regulation resulted in intermittent supplies to seafood distributors from the Gulf commercial fishery for red snapper. Fishing days were reduced from 365 in 1990 to 95 by 1992, but annual landings continued to grow through 1999 (Figure 2), meaning that landings began to occur under conditions of a derby fishery. Real ex-vessel prices of Gulf and South Atlantic red snapper were affected by imports as well; prices are now lower in both regions than in the late 1980s, more so for the South Atlantic. Red snapper no longer commands the price premium over yellowedge grouper, black grouper, gag grouper and scamp that it once did; it is now a bit lower in the Gulf. In 1990, red snapper had the highest real ex-vessel price in the Gulf among ten reef fish species, $2.89 a pound, as shown in Table 2, but the $1.84 in 1997 put red snapper close to vermilion snapper. At $2.29 in 2003, red snapper was closer to yellowedge grouper, black grouper, gag grouper and scamp, likely because of redistribution of allowed fishing days among months. The 94 fishing days for red snapper in 2003 were distributed among 10 months, while the 52 to 95 allowed fishing days for 1992 through 1995 were distributed mostly among 3 or 4 months.

4.4.1.2 Red Snapper, Directed Fishing and Shrimp Fishery Bycatch

For Gulf red snapper, the status of stock and regulations have been a focus of concern, although other Gulf reef species have been determined to be overfished or undergoing overfishing since the FMP was implemented in 1984. Based on a 1988 stock assessment, it was determined that substantial reductions in fishing mortality were necessary to rebuild the significantly overfished stock, including reduction in mortality of juvenile red snapper attributable to incidental catch by the shrimp fishery.

There are two classes of red snapper licenses for commercial fishing, with initial issue based on documented landings during 1990 through 1992: Class 1, 2,000 pounds per trip, and Class 2, 200 pounds per trip (50 CFR § 622.4, permits and fees; 50 CFR § 622.44 [d], commercial trip limits). In addition, the commercial fishery became a "derby fishery;" i.e., days of fishing were reduced from 365 in 1990 to as few as 52 in 1995, though total landings were allowed to increase through 1999 under quotas (Figure 2; Hood, 2003).

By contrast, bag limits were implemented in 1990 to regulate recreational fishing for red snapper. Recreational landings increased substantially more than commercial landings in 1990 through 1993 and again in 1995 through 1998 (Figure 2), far surpassing the recreational allocation in 1992 through 1994 and surpassing what had become a recreational "quota" by about 1.0 MP a year in 1997 through 1999 (Hood, 2003). The initial (1990) bag limit of 7 fish was reduced to 5 fish in 1995 and to 4 fish in 1998. Fishery closures based on ongoing quota monitoring do not occur for most recreational fisheries; that is, there is no requirement to reduce bag limits to zero when a recreational allocation is reached, contrary to what typically occurs for commercial fishing when the "hard" quota is reached. However, an exception for red snapper began in 1997, and the recreational season was reduced to 360 days in 1997 and to 194 days by 2000. There are seasonal closures for recreational fishing for red snapper (January 1 through April 20 and November 1 through December 31), as well as area closures (marine reserves) (50 CFR § 622, *Ibid.*; 50 CFR § 622.34 [l] and [m], Gulf EEZ seasonal and/or area closures; 50 CFR § 622.39 [a] [2], bag & possession limits).

Stock assessments and rebuilding plans for red snapper have been based on assumptions about juvenile red snapper mortality in shrimp trawls and the level of shrimp fishing effort over time. Reduction in incidental fishing mortality of juvenile red snapper was addressed by the required use of bycatch reduction devices (BRDs) in shrimp trawls (GMFMC 1998). In addition, shrimp fishing effort has declined and is likely to continue to do so because of economic conditions in the Gulf shrimp fishery. Expanded output of farmed shrimp in many countries and growing U.S. imports of shrimp since the late 1970s affected ex-vessel prices of shrimp. In turn, ex-vessel prices, along with other things, affected economic performance of vessels in the Gulf shrimp fishery. This has led to reductions in days fished, trips, and numbers of vessels by the late 1990s (Keithly et al.1993; Vondruska, 2001; Haby et al. 2003).

Travis and Griffin (2004) used simulation models to project economic losses and decreases in numbers of vessels and fishing effort in the Gulf shrimp fishery during 2002 through 2021, assuming for purposes of analysis that economic conditions in 2002 would prevail. They estimated that economic losses would likely continue through 2012, causing large, offshore vessels to exit the fishery through 2012. The number of full-time equivalent vessels and days fished were projected to decline throughout the 2002 through 2021 period for the small vessel sector (predominantly inshore). The large vessel sector is thought to have more interaction with finfish species, such as juvenile red snapper. Travis and Griffin (2004) noted that economic conditions in the Gulf shrimp fishery worsened after 2002; therefore, the projections of economic losses and decreases in fleet size and effort were likely understated.

While the lasting effect on economic conditions in the Gulf shrimp fishery is not yet clear, preliminary determinations were announced in July 2004 by the U.S. Department of Commerce for Antidumping Duty Investigations for shrimp that were conducted by the U.S. International Trade Commission. The result has been the imposition of duties on imports of some shrimp products from some countries, pending final determinations, which are several months away.[5] Economic models have been used to estimate the effect of quotas and tariffs on ex-vessel prices of shrimp in the Gulf, and, in turn, the effect of ex-vessel prices on fleet size and fishing effort (Keithly et al. 1993).

According to results of a qualitative modeling approach (Ward 1994), reducing bycatch mortality of a reef fish species in the Gulf shrimp fishery will not necessarily result in increased stock size or substantially increased harvest for the reef fish species. According to the model, reducing bycatch mortality reallocates the reef fish stock from the shrimp fishery to the reef fish fishery, allowing directed fishing effort to expand for reef fish species. The result is that the stock of the reef fish species declines and the cost of fishing increases, unless fishing effort is prevented from increasing.

Empirical modeling of the behavior of the multi-species Gulf reef fish fisheries is beyond the scope of this RIR. However, descriptive statistical analysis of logbook data during 1993 through 2003 in Section 4.4.2 indicates that the Gulf reef fish permit moratorium implemented in 1992 has been accompanied by reductions in both the number of permitted vessels and the number of vessels with landings of Gulf reef fish, though the permit moratorium does not mandate decline. The totals for logbook-reported landing of Gulf reef fish, number of trips and days at sea remained relatively stable during 1993 through 2003, but the medians for landings per vessel, trips per vessel and days at sea per vessel increased (Table 5). It is expected that the decline in number of vessels fishing and the increased productivity of those remaining in the fishery reduced the cost of fishing during 1993 through 2003. Producer surplus rose to an estimated $404,500 to $647,200 by 2003, based on certain assumptions and Gulf reef permit prices ($5,000 to $8,000), as explained in Section 4.5.1.

4.4.2 Logbook Indicators of Commercial Fishing Activity for Gulf Reef Fish

As shown in Tables 3 and 4, the number of vessels with valid federal permits to fish commercially for Gulf reef fish rose sharply from 1,600 in 1990 (first issue, April 1990) to 2,100 or more in 1992, the year in which the permit moratorium was implemented under Amendment 4 (May 1992). The 1992 increase (405 vessels) and the 1993 decline (409 vessels) may be attributed to entry of vessels in early 1992 and subsequent inability of vessels to comply with the published control date of November 1, 1989. Reportedly, there was an unusual increase in permit applications between the time of public hearing on the proposed moratorium in December 1991 and the time of its implementation in May 1992. The number

[5]U.S. Department of Commerce, "Fact Sheet: Preliminary Determinations ..., " July 6, 2004]. A second set of preliminary determinations was announced on July 29, 2004 (Nora Koch, "Duties placed on shrimp," *St. Petersburg Times*, Friday, July 30, 2004, p. D-1).

of vessels with permits fell from 1,718 in 1993 to 1,129 in 2004 (Table 4). The description of commercial fishing activity at the vessel and trip level in 1993 through 2003 in this report is based on the use of permit, logbook, and other NOAA-managed data.[6]

Logbook reports were first required of all vessels with federal permits for commercial fishing for Gulf reef fish in 1993. As shown in Table 3, an average of 916 vessels per year with permits for commercial fishing for Gulf reef fish had logbook-reported landings of these fish that totaled 190 MP during 1993 through 2003, while an average of 1,168 vessels per year, including some without the permits, had logbook-reported landings of 207 MP of these fish. However, the vessels lacking Gulf reef fish permits apparently could not sell such fish if caught in the EEZ, and bag limits would control the amount that they could land from the EEZ [50CFR § 622.4 (2) (v), permits and fees]. Bag limits also apply to vessels with Gulf reef fish permits under certain circumstances, but the vessels with permits could sell the fish, with the exception of red snapper. Even the possession and landing of red snapper by vessels with Gulf reef permits is prohibited if bag limits are zero. Bag limits for red snapper are zero seasonally (January 1 through April 20 and November 1 through December 31), in marine reserves, and when the recreational quota has been reached [50CFR § 622.34 (l), Gulf EEZ seasonal and/or area closures; 50CFR § 622.39 (2) (a) (1), bag and possession limits].

During 1993 through 2003, 61% to 74% of the vessels with permits for commercial fishing for Gulf reef fish had logbook-reported nominal reef fish landings (at least one pound) (Table 4). As shown in Table 5, the median landings of Gulf reef fish per vessel were 4,979 pounds for 1,046 vessels in 1993 and 7,611 pounds for 809 vessels in 2003. The medians are the 50th percentiles; e.g., in 1993, half of the 1,046 vessels landed between 1 pound and 4,979 pounds of Gulf reef fish, while the other half landed more than 4,979 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 vessel landings, 25% of the vessels landed 997 pounds or less in 1993 and 25% of the vessels landed 1,420 or less in 2003 (25th percentiles). The 25% of vessels at the upper end of the annual frequency distributions landed more than 19,561 pounds in 1993 and more than 27,950 pounds in 2003 (75th percentiles).

For vessels with permits for and landings of Gulf reef fish, these fish accounted for 95% to 98% of the estimated annual gross revenue for all logbook-reported landings of fish, for which the median values were $12,380 per vessel in 1993 and $19,909 in 2003. The annual maximums for estimated vessel gross revenue were $346,000 to $532,000. The median vessel length was 36 to 37 feet long. Although there was some increase in the median number of trips per vessel per year for all fish over time, the total number of such trips for all vessels did

[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 Fishery Science Center, Miami. Respecting computerized data files for vessels with valid federal fishing permits see Table 3, footnote 2. Other files were obtained on the following dates: logbooks, 16 Mar 04; and southeast landings for 2000-2004 (North Carolina-Texas), 22 Mar 04 and 1962-1999, previously, except as explained in Table 2, footnote.

not vary much from the 1993 through 2003 average of 14,762 trips per year. Similarly, there was some increase in median days away from port per vessel per year, but the total number of days away from port for all vessels did not vary much from the 1993 through 2003 average.

Given the decline in number of vessels with landings of Gulf reef fish, median vessel performance continued to improve during 1993 through 2003 in terms of pounds landed per year and estimated gross revenue, but median trip performance has fallen off since 1997, though not to the 1993 through 1995 level (Tables 5 and 6). Median trip landings were 499 pounds of Gulf reef fish in 1993, 956 pounds in 1997, and 754 pounds in 2003. Average trip length appears to have been on a downward trend since 1994/1995, 4.03 days per trip; 2002/2003, 3.64 days per trip). Speculating, the increase in median engine horsepower from 165 in 1993 to 300 in 2003 could be consistent with: (1) increases over time in the median number of trips and days at sea per vessel per year, and/or (2) adjustment to the number of days the commercial red snapper season has been open (365 days in 1990, falling to 52 days in 1995 and 66 to 94 days in 1996 through 2003).

Vessels that used handline gear in 1993 through 2003 accounted for 117 MP of the landings of Gulf reef fish and $310 million of the all-fish revenue, followed by vessels using longline gear, 62 MP ($161 million), and vessels using pots and traps, 11 MP ($31 million). As indicated above, the commercial vessels with reef fish permits landed 190 MP ($378 million) of these fish during 1993 through 2003, and the estimated real ex-vessel value for all of their logbook reported landings came to $426 million in 2001 dollars (11-year sums, Tables 5 and 6). For each gear category, the number of vessels was much smaller at the end than the beginning of the 11-year period, and the medians for annual vessel landings, gross revenue and engine horsepower were higher at the end of the period. However, there are notable differences in the median values among gear categories and in the decline in number of vessels between 1993 and 2003.

In terms of annual medians, vessels that used handline gear landed 3,000 to 4,800 pounds of Gulf reef fish per vessel, they had estimated gross of $10,400 to $17,400 for logbook-reported landings of all fish, and they were 35 to 36 feet long, and they had 175 to 300 horsepower engines. The number of vessels was 883 in 1993 and 687 in 2003 (decline of 196 vessels, or 22%). Out of the 11-year sum of $310 million for their estimated real ex-vessel in 2001 dollars for all logbook-reported landings of fish, red snapper accounted for $96 million, red grouper, $47 million; vermilion snapper, $41 million, and gag grouper, $40 million.

Vessels that used longline gear landed 22,000 to 38,000 pounds of Gulf reef fish per year, they had gross revenue of $49,000 to $113,400, they were 42 to 44 feet long, and they had 215 to 240 horsepower engines (respective annual medians). The number of vessels was 168 in 1993 and 140 in 2003 (decline of 28 vessels or 17%). The 11-year sum for the estimated real ex-vessel in 2001 dollars of landings of all logbook-reported fish came to $161 million, and the four top species were: red grouper, $70 million; yellowedge grouper, $21 million; gag grouper, $17 million; and red snapper, $16 million.

Vessels that used pots or traps landed 2,500 to 21,000 pounds of Gulf reef fish, they had gross revenue of $18,000 to $50,000, they were 37 to 41 feet long, and they had 200 to 450 horsepower engines (respective annual medians). The number of vessels was 142 in 1993 and 36 in 2003 (decline of 96 vessels or 68%), and it is expected to be zero in 2007 under a 10-year phaseout that was implemented in 1997 under Amendment 16a. The 11-year sum for the estimated real ex-vessel in 2001 dollars of landings of all logbook-reported fish came to $31 million, and the four top species were: red grouper, $17 million; spiny lobster, $1.6 million; gag grouper, $1.4 million; and yellowtail snapper, $1.1 million.

4.4.3 Vessel Permits, Vessel Entry-Exit, and Limited Access versus Open Access Fishing for Gulf Reef Fish

Since the implementation of Amendment 1 to the Reef Fish FMP in 1990, any vessel that engages in commercial fishing for Gulf reef fishing in the EEZ has been required to have a federal fishing permit. Shortly thereafter, Amendment 4 (May 1992) established a 3-year moratorium on federal permits for vessels to fish commercially for Gulf reef fish. The initial issue of permits under the moratorium involved a published control date of November 1, 1989. The moratorium was extended by Amendments 9, 11, and 17 to December 31, 2005, although the Council had developed an ITQ system for red snapper (Amendment 8). Final rules for the ITQ system were published in the *Federal Register* on November 29, 1995, but Congress prohibited the implementation of ITQ systems until October 1, 2000. This amendment addresses the potential expiration of the moratorium on federal permits for commercial fishing for Gulf reef fish.

The commercial Gulf reef fish permit moratorium was established in May 1992 to:

> moderate short-term future increases in fishing effort and attempt to stabilized fishing mortality, ... a prudent first step in the development and evaluation of more comprehensive alternative effort limitation programs that could provide better long-term control of fishing effort (GMFMC, Amendment 4, 1991, p. 17).

Ten years later under Amendment 20 (July 29, 2002), a 3-year moratorium on permits for charter and headboat fishing for Gulf reef fish was established and its extension is being considered under the proposed Amendment 25. Actual implementation of the moratorium was delayed until June 16, 2003. The moratorium included a control date of March 29, 2001, with caveats, including provision for qualification a vessel by a person who meets the criteria for being historical captain of for-hire vessels. Similar to the commercial permit for reef fish, an earned income requirement was established for the charter-headboat permit moratorium (25% of earned income from recreational for-hire fishing in one of the four years ending March 29, 2001).

The earned income for a person to obtain a federal permit for commercial fishing for Gulf reef fish must be at least 50% of that person's total earned income in 1 of 2 previous calendar years, allowing for a 1-year grace period to qualify under permits that are transferred. Also, a permit:

> that is not renewed or that is revoked will not be reissued. A permit is considered not renewed when an application for renewal is not received by the NOAA Fisheries, Southeast Region, RA within 1 year of the expiration date of the permit (50 CFR § 622.4 [m] [6], permits and fees).

Permits for commercial fishing for Gulf reef are exchanged in the public market, and the prices are estimated to range from $5,000 to $8,000. 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 $8,000) 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 accrues to individual fishery participants. Annual producer surplus for vessels with permits for and nominal landings of Gulf reef fish is estimated at $404,500 to $647,200 for 2003, based on current permit prices.[7] This represents 1.2% to 1.9% of the 11-year annual average for estimated gross revenue for Gulf reef fish in 1993 through 2003, $34.372 million (Table 6).

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 Council has 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 the 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].

[7]As a crude approximation, producer surplus for 809 vessels with federal permits for commercial fishing for and landings of Gulf reef fish in 2003 (Table 7) 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, $5,000 to $8,000. The sum refers to the triangular area above an input-based supply curve for Gulf reef fish, with number of vessels measured on the horizontal axis. Division by 2 is done to obtain the triangular area from a rectangular area, and division by 5 is done to obtain an annual number from a 5-year number: 809 * $5,000 /(2 * 5)= $404,500; 809 * $8,000 / (2 * 5) = $647,200.

The market-determined price of a Gulf reef fish 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. Because red snapper accounted for 23% of the 11-year sum of gross revenue for all of these vessels (Table 1), many of the vessels are likely to have permits for commercial fishing for that species. The permit-related entry cost (exit proceeds) for an economically viable vessel could be $7,000 to $64,000, based on the market-determined prices for federal permits for commercial fishing in the Gulf of Mexico.[8] About one-fifth of the vessels with currently valid commercial Gulf reef fish permits (that may or may not be actively fished in any given year) are new entrants (Table 8, footnote). However, the number of exiting vessels exceeded the number of entering vessels during 1993-2003, meaning that the number with valid/active permits declined (Table 3). 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).

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 IRS Form 1040, Schedule C for individuals. Based on such data, it was found that net income from fishing varied widely (Vondruska, 1998). There were 6,166 vessels with various kinds of federal permits for fishing in 1997, including 1,602 with Gulf reef fish permits. Net income data were available for 3,156 of the 6,166 vessels. The median net income was $3,929 for these 3,156 vessels; the lower quartile (25%) reported losses (negative net income), while the upper quartile (25%) had net income of $13,709 or more. 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 for exit, the number of vessels with federal permits for commercial fishing for Gulf reef fish fell from 1,718 in 1993 to 1,129 in 2004 (Table 4). Because of the diminishing rate of decline, only data for 1996 through 2003 was initially used to estimate average rates of decline under current conditions. The resulting equations were used to estimate the number of vessels expected to fish during 1990 through 2015, assuming constant annual rates of decline (3.4% for vessels with permits and 1.15% for vessels with landings) (Table 7, columns 2 and 5, footnotes). However, the use of these rates results in over 98% of permitted vessels reporting landings of reef fish species. Although the percentage of actively fished vessels in a limited access fishery would be expected to increase over time as vessels exit the fishery (due to the exit of speculative effort, retirement, failure to renew, etc.) and

[8]The market-determined prices for federal permits for commercial fishing 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-$50,000 for a class 1 Gulf red snapper license (2,000 pound trip limit), $2,000-$4,000 for a class 2 Gulf red snapper licence (200 pound trip limit), and $5,000-$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.

economic conditions improve, particularly if the resource is recovering, such a high rate of permit use would be unprecedented for this fishery. On the possibility that a lower rate of decline in the number of permitted vessels is more likely, such as the average annual rate of 1.88% from 2001 through 2004 (Table 4), a 2% rate was applied, starting with the actual number of vessels with permits for 2004. The resulting estimates are shown in Table 7 (column 3), indicating that 82% of permitted vessels would be expected to harvest some reef fish species by 2015.

Based solely on the fact that only 61% to 74% of the vessels with active permits for commercial fishing for Gulf reef fish in any one year during 1993 through 2003 had landings of Gulf reef fish in the same year, it is possible to overstate the problem of latent, unfished, or speculative permits because a single year's perspective does not reveal the extent of fishing activity over a period of years. For example, among 1,155 vessels with valid permits for commercial fishing for Gulf reef fish at a single point in time (February 6, 2004), 1,012 (87.6%) had nominal landings (1 pound or more) during at least 1 of the 6 years 1998 through 2003, 764 (66%) had landings in 3 or more years, but only 436 (39%) had nominal landings in each of the 6 years (Table 8). Among these 1,155 vessels, 939 (81.3%) had landings of 500 pounds or more of Gulf reef fish in at least 1 of the 6 years 1998 through 2003, but only 370 vessels (32%) had such landings in each of the 6 years.

4.5 Impacts of Management Measures

This amendment contains one action. This action considers alternatives to allow the existing moratorium to expire (the no action alternative), extend it for 5 or 10 years, or establish a license limitation system that maintains a moratorium on the issuance of new commercial Gulf reef fish permits, indefinitely. These alternatives are listed in Section 3. The current commercial permit moratorium applies to Gulf reef fish only.

Currently, vessel entry into the fishery occurs via a private market for permits that was initiated under the provisions of Amendment 4 (May 1992) 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 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 Proposed 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 Gulf reef fish 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 Gulf reef fish landings, hence increasing the cost per pound landed, and reduce producer surplus below the estimated $404,500 to $647,200 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 or is expected to be minimal because commercial fishing for groupers, tilefish, and red snapper are managed using hard quotas, trip limits, minimum size limits, and limitations on allowable gear. While other reef fish species are not subject to hard quotas, economically successful operation in the reef fish fishery is dependent upon harvest of the major grouper and snapper species. Overall participation as determined by participation in the fisheries for these major species is expected to limit biological harm to the minor species.

Alternatives 2, 3 or Proposed Alternative 4 (limited access) would continue to cap participation in the fishery 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, perhaps as in 2001 through 2004, 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 that the rates of decline estimated or utilized in Table 7 continue (2.0% in permitted vessels, and 1.15% in vessels landing Gulf reef fish), then an estimated 1,000 vessels would be expected to be permitted and 783 vessels would be expected to land Gulf reef fish in 2010, when the moratorium established by Alternative 2 would expire. The respective totals for Alternative 3 are 904 vessels and 739 vessels in 2015. These totals compare with 1,718 permitted vessels and 1,046 vessels with landings in 1993. Similar projections could be provided for Proposed Alternative 4, but the assumption of a continuation of the same (constant percentage) rates of 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 Gulf reef fish 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 Gulf reef fish 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 Gulf reef fish permitted vessels permits and landings of Gulf reef fish was estimated at $404,500 to $647,200 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 permitted vessels that land Gulf reef fish, 1.15%, the average annual

producer surplus is estimated to range from approximately $450,000 to $720,000 by 2010, and $484,000 to $775,000 by 2015.

It should be noted that although Alternatives 2, 3, and Proposed 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 a limit on access as would be imposed by Alternatives 2 or 3 could be terminated prior to the specified time. Proposed Alternative 4 specifically differs from Alternatives 2 and 3 in that the limit on access would not expire unless additional action is taken. As described below, the administrative and development cost of the current action is estimated to be $200,000. Adoption of Proposed 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 a permit moratorium was begun in the commercial Gulf reef fish fishery in 1992 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 seeking to enter the fishery. Under the current system, the number of vessels that have permits has been falling at about 2% per year since 2001, while the number of vessels that have permits and actually land Gulf reef fish has declined by an average rate of 1.15% per year (Tables 4 and 7). 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 Proposed Alternative 4 would continue to limit access, albeit for differing periods of time, thereby continuing the market-based participation system. Although the rate of decline may change, if the number of permitted vessels declines by 2.0% per year, then the number of permitted vessels is estimated to be 1,000 in 2010 (in 5 years under Alternative 2) and 904 in 2015 (in 10 years under Alternative 3). No projections are made for Proposed Alternative 4 because it provides for an indefinite cap on participation. A decrease in the number of permitted vessels would lead to an expected decrease in the number of vessels landing Gulf reef fish and, thereby, to an expected increase in producer surplus from that in 2003, an estimated $484,000 to $775,000 by 2015.

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 $404,500 to $647,200 in 2003.

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 $31,000

TOTAL $231,000

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 proposed 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, assuming appropriate income data are on record. 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 February 1, 2004, 1,129 permits, the public cost of permitting equaled $28,225 (1,129*$25). Additionally, it is estimated to require 20 minutes to complete and mail the application, or 10 minutes per year, for a total of 188 hours per year([1,129*10]/60). Assuming $10 as the opportunity cost of time, the value of this time is estimated to be $1,880. Assuming $1 for postage expenses per application, the application process is estimated to cost an additional $565 per year ([1,129/2]*$1). The total annual burden, therefore, sums to approximately $31,000. 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, so no estimate of this additional cost is available. The total number of valid permits has declined each year since initiation of the moratorium, at an estimated average annual rate of 2.0% recently. Assuming the same rate of decline continues through 2010, only an estimated 1,000 permits would be issued in 2010. The appropriate public costs of a permit program of this size is approximately $28,000. The average cost of the permitting program using the 2003 and 2010 figures is estimated at $29,500 per year.

4.7 Summary of Economic Impacts

Under a continued prohibition on the issuance of new commercial reef fish permits (Alternatives 2, 3, or Proposed Alternative 4), assuming continued contraction of the number of permitted vessels at a rate 2.0% per year as depicted in Table 7, the number of permitted vessels is expected to drop from 1,129 vessels in 2004 to 1,000 vessels by 2010 (Alternative 2), to 904 vessels by 2015 (Alternative 3), and to an unknown number of vessels under Proposed Alternative 4 (fleet stabilization would be expected at some unknown time and level). Assuming that reduction in the number of vessels that land Gulf reef follows recent patterns (1.15% per year), the respective estimates of vessel participation are 783 vessels (2010) and 739 vessels (2015), as shown in Table 7. A decrease in the number of permitted vessels landing Gulf reef fish would lead to an expected increase in producer surplus from that in 2003, an estimated $404,500 to $647,200. Assuming the increase in producer surplus mirrors that of fleet contraction (1.15% per year), the resultant estimates of producer surplus are approximately $450,000 to $720,000 by 2010, and $484,000 to $775,000 by 2015.

A return to open access conditions (Alternative 1) would be expected to lead to an increase in the number of vessels landing reef fish, assuming the current decline is due to an imperfectly operating permit transfer market. An increase in the number of vessels landing reef fish would be expected to lead to a decrease in current producer surplus from that in 2003, an estimated $404,500 to $647,200, potentially to the point of total dissipation of all producer surplus.

4.8 Determination of Significant Regulatory Action

Pursuant to Executive Order (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 Gulf reef fish is less than $50 million. Although allowing the Gulf reef fish fishery to return to open access conditions may result in the elimination of all current producer surplus, estimated to range from $404,500 to $647,200, 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 (Alternatives 2, 3 and Proposed Alternative 4) or place fewer restrictions on participation in

the fishery (Alternative 1). Therefore, the action would not be expected to substantially impact the economy, a sector of the economy, productivity, competition or jobs.

Additionally, 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."

This RIR analyzes the potential impacts that the alternatives in this plan amendment to the Reef Fish FMP would have on participants in the reef fish fishery in the Gulf.

5.0 REGULATORY FLEXIBILITY ACT ANALYSIS

Introduction: The purpose of the Regulatory Flexibility Act (RFA) is to establish a principle of regulatory issuance that agencies shall endeavor, consistent with the objectives of the rule and 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 which 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 2.0 and are incorporated herein by reference. In summary, the purpose of the proposed rule is to provide stability in the Southeast commercial Gulf reef fish fishery as part of the overall strategy to achieve OY and maximize the overall benefits to the Nation provided by the fishery. The M-SFCMA, 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 1,161 vessels were permitted to fish commercially for Gulf reef fish in 2003, down from 1,718 in 1993, and 61% to 74% had logbook-reported landings during 1993 through 2003 (Table 4). The median annual gross revenue from all logbook-reported sales of finfish by these vessels ranged from approximately $12,000 to $23,000 during this period (Table 5). The median percentage of gross revenues attributable to Gulf reef fish ranged from 95% to 98%. Although participation in the fishery has declined since 1993, 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 the moratorium has limited access in this fishery since 1992, 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 253 of 1,175 permits (as of February 6, 2004) represented permits that had been transferred at some point since 1998 (Table 8, footnote). Thus, entry into the fishery does occur, however total participation, in terms of both the number of permits and the number of permitted vessels that land fish, has consistently declined since 1993, indicating that entry is not limited by a lack of availability of 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, and, therefore, are deemed not 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 Gulf reef fish fishery are considered small entities.

The proposed rule will apply to all entities that operate in the commercial Gulf reef fish fishery and those entities interested in or seeking to enter the fishery. Therefore, the proposed rule will 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?

The proposed rule would continue the limit on access in the reef fish fishery. Continuation of this limit on access would be expected to increase profitability for the entities remaining in the fishery if participation continues to decline, as has occurred since 1993. 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 alternatives would continue the requirement to have a vessel permit in order to participate in the commercial Gulf reef fish 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 that address the extension or expiration of the current limit on access to the commercial Gulf reef fish 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 (1,129 vessels in 2004), or, at the least, slow the rate of decline in participation that has occurred, and would be

expected to continue under Alternatives 2, 3, or Proposed Alternative 4. Any increase in the number of permitted vessels landing Gulf reef fish would lead to an expected decrease in producer surplus from that in 2003, estimated at $404,500 to $647,200.

Alternatives 2 and 3 would continue the current moratorium on issuing new Gulf reef fish permits for 5 years or 10 years, respectively, while Proposed Alternative 4 would establish a limited access program, indefinitely. Thus, the fishery would continue with a limit on access under each of these alternatives. It is not possible to distinguish Alternatives 2, 3, and Proposed 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 Proposed Alternative 4 are expected to be functionally equivalent. As stated previously, under the current moratorium, the fishery is estimated to have generated an estimated $404,500 to $647,200 in producer surplus as of 2003. Assuming the increase in producer surplus mirrors that of fleet contraction exhibited recently (1.15%), the resultant estimates of producer surplus are approximately $450,000 to $720,000 by 2010, and $484,000 to $775,000 by 2015. Alternatives 2, 3, and Proposed 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 Gulf reef fish fishery and allocating access to fishery resources among competing users in the commercial fisheries.

It should be noted that although Proposed 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, Proposed Alternative 4 may better address the Council's purpose of providing stability in the commercial and recreational fisheries for Gulf reef fish, preventing speculative entry into the commercial fisheries, and achieving OY, as specified in the M-SFCMA. Alternative 1 would not achieve the Council's objectives.

6.0 AFFECTED ENVIRONMENT

6.1 Physical Environment

6.1.1 Geological Features

The physical environment of reef fish has been described in detail in the EIS for the Generic Essential Fish Habitat amendment and is incorporated here by reference (GMFMC, 2004a).

The Gulf of Mexico is bounded by Cuba, Mexico, and the United States, and has a total area of 564,000 km^2. Continental shelves occupy about 35% of the total Gulf area and the west Florida shelf (about 150,000 km^2) is the second largest shelf in the United States after Alaska.

The Gulf of Mexico basin was formed during the Jurassic Period with the initial breakup of Pangea. The basin's current position formed during the early Cretaceous period. The Mississippi River has had a great effect on the northern Gulf of Mexico since the late Cenozoic period. Approximately 450 million metric tons of sediment are deposited annually in the Gulf of Mexico by the Mississippi River, and this river produces more sediment than the combined deposition of all other regional rivers by an order of magnitude.

The Gulf can be divided into two major sediment provinces. East of DeSoto Canyon and southward along the Florida coast, sediments are primarily carbonates. Coarse surface deposits include quartz sand, carbonate sand, and mixtures of the two. To the west of DeSoto Canyon, sediments are terrigenous. Coarse sediments make up the very shallow nearshore bottoms from the Texas/Mexican border to off central Louisiana, from the shore to the central third of the shelf. Beyond 80 meters (m), fine sediments are also strongly represented. Fine sediments are limited to the northern shelf under the influence of the Mississippi and Atchafalaya rivers.
The west Florida shelf provides a large area of hard bottom habitat. It is comprised of low relief hard bottoms that are relict reefs or erosional structures. Some high relief can be found along the shelf edge in waters 130 to 300 m deep. Hard bottom provides extensive areas where reef biota such as corals can become established. These hard bottom areas have become important reef fish fishing areas. Some of these areas such as the Tortugas North and South closed areas, the Florida Middle Ground habitat area of particular concern (HAPC), the Steamboat Lumps closed area, and the Madison and Swanson closed area limit fishing activities within their boundaries.

Off the Alabama/Mississippi shelf and shelf break, irregular-shaped aggregates of calcareous organic forms called pinnacles are found. These pinnacles average about 9 m in height and are found in waters about 80 to 130 m deep. In addition to the pinnacles, low-relief hardbottom areas can be found in waters less than 40 m adjacent to Florida and Alabama.

While the Louisiana/Texas shelf is dominated by muddy or sandy terrigenous sediments, banks and reefs do occur on the shelf. Rezak et al. (1985) grouped banks into the mid-shelf banks, (defined as those that rise from depths of 80 m of less and have a relief of 4 to 50 m) that are made of relatively bare, bedded Tertiary limestones, sandstones, claystones, and siltstones, and relict reefs (defined as those that rise from water depths of 14 to 40 m and have a relief of 1 to 22 m) that are relict carbonate shelf. The Flower Garden Banks National Marine Sanctuary is located about 150 km directly south of the Texas/Louisiana border. This coral reef is perched atop two salt domes rising above the sea floor and ranges from 15 to 40 m deep.

6.1.2 Oceanographic Features

As stated in the Council's Generic Essential Fish Habitat (EFH) Amendment, the Gulf is a semi-enclosed, oceanic basin connected to the Atlantic Ocean by the Straits of Florida and to the Caribbean Sea by the Yucatan Channel. The Mississippi and Atchafalaya rivers account for over half of the freshwater discharge into the Gulf. Oceanic conditions are primarily affected by the Loop Current, the discharge of freshwater in to Northern Gulf, and a semi-permanent, anticyclonic gyre in the western Gulf.

Oceanic temperature regimes have been extensively mapped by Darnell et al. (1983), Darnell and Kleypas (1987), NOAA (1985), MMS (1997), and Donaldson et al. (1997). Water temperatures range from 12 C to 29 C depending on time of year and depth of water. In general, water temperatures decline during cooler months and increase in the summer. The greatest difference is found in nearshore waters where temperatures can be 10 to 15° C warmer in the summer compared to the winter. Along the shelf edge, this difference is only about 1to 4° C. In the summertime, coastal surface and bottom waters are warmer than offshore waters; however, this trend is reversed in the winter.

Salinity varies seasonally and is dependent on the amount of freshwater input. During months of low freshwater input, coastal salinities generally range between 29 and 32 parts per thousand (ppt) (MMS, 1997). At times of high freshwater input, salinities can decrease to less than 20 ppt. In the open Gulf, salinities are less variable than coastal waters and are generally around 36 ppt (MMS, 1997). The Mississippi and Atchafalaya rivers provide about half the freshwater input into the Gulf; however, the influence of these waters on salinity is generally restricted to surface waters.

Over the entire Gulf, dissolved oxygen averages about 6.5 parts per million (ppm) (Barnard and Froelich, 1981). During warmer months, localized hypoxic events (<2.0 ppm) occur in such places as Mobile Bay, Alabama and Tampa Bay, Florida. Hypoxic events are usually caused by two factors - stratification of marine waters and decomposition of organic matter. A major hypoxic event occurs each year over a large area of the Louisiana continental shelf with seasonally-depleted oxygen levels (< 2 ppm). The oxygen depletion begins in late spring, reaches a maximum in midsummer, and disappears in the fall. The event is caused by nutrient over-enrichment from anthropogenic sources. These excess nutrients lead to increased algal production and increased availability of organic carbon within an ecosystem. When the rate of oxygen use by decomposers exceeds the rate of oxygen resupply from surface waters, hypoxia occurs.

Riverine inputs, wind, and currents are the primary agents of turbidity in Gulf waters. Turbidity levels in the western and northern Gulf are higher than the eastern Gulf because of more sources of freshwater input. Surface turbidity is limited to areas of riverine inputs with the Mississippi and Atchafalaya rivers the primary inputs for the Gulf. During low water periods, the amount of sediment in suspension averages 0.260 grams per liter (g/l). The amount of suspended sediment increases to 0.640 g/l during high water periods. These turbid waters are delivered to offshore locations by tidal currents and winds. Another type of

turbidity found near the bottom is called the nepheloid layer. This is a body of moving, suspended sediment that is formed when the turbulence of bottom waters is high enough to offset the settling (gravity driven) of the sedimentary particles.

Currents vary with locality and may in some areas exceed 2 meters per second. Circulation patterns in the Gulf are dominated by the Loop Current that enters the Gulf through the Yucatan Straits and exits through the Straits of Florida after looping anticyclonically through the southeastern Gulf. During most years, the Loop Current penetrates north into the eastern Gulf. Associated with this penetration are the shedding of large anticyclonic eddies that propagate to the west after separation. Following an eddy shedding event, the Loop Current often retreats to the south, hugging the northwest coast of Cuba. The boundary of the Loop Current and its associated eddies is a dynamic zone with both strong convergences and divergences that can concentrate planktonic organisms including fish eggs and larvae.

6.1.3 Habitat Use by Managed Reef Fish Species

The amended M-SFCMA of 1996 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 of fishing on that EFH, 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 EA on the amendments were in violation of the National Environmental Policy Act (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.

To address these requirements the Council has, under a separate action, written 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 (GMFMC, 2004a). Depending on the Proposed Alternatives identified in this EIS the Council's 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 NOA for the FEIS on June 25, 2004 (FR, Vol. 69, No. 122, p. 35598) and the NOA for the ROD on July 29, 2004 (FR, Vol. 69, No. 145, p. 45307).

As documented in the Council's FEIS for the Generic EFH Amendment (GMFMC, 2004a), many aspects of the biological environment are unknown or unavailable. Lack of data limits the ability of management agencies to develop specific management programs for managed species or the essential habitat needed by those species. The number of managed species and the complex components of the environment exceed the capability of state and federal management and scientific organizations to provide information. In general, data collections and analyses have been limited to selected species or components of the environment. Several federal agencies and all state fishery/natural resource agencies have programs underway to expand necessary information.

- NOAA Fisheries has the lead responsibility for fishery management and protection in the federal waters of the GOM (beyond nine miles off Texas and the west coast of Florida, and three miles off the other states).
- The US Army Corp of Engineers requires permits for many activities in state and federal navigable waters, and has biological assessment capabilities.
- The Mineral Management Service (MMS) has a responsibility to assess biological effects of federally authorized mineral extraction (especially oil and gas in the GOM).
- The US Geological Service has a biological research division that emphasizes shallow-water processes, and is also engaged in mapping the benthic habitat of the GOM.
- The US Fish and Wildlife Service is responsible for marine birds, anadromous fish and some marine mammals (e.g., manatees).

The National Ocean Service (NOS) of NOAA collaborated with NOAA Fisheries and the Council to develop distributions of reef fish (and other species) in the Gulf (SEA, 1998). NOS obtained fishery-independent data sets for the Gulf, including SEAMAP, state trawl surveys, and GUS trawl surveys. Data from the Estuarine Living Marine Resources (ELMR) Program contain information on the relative abundance of specific species (highly abundant, abundant, common, rare, not found, and no data) for a series of estuaries, by five life stages (adult, spawning, egg, larva, and juvenile) and month for five seasonal salinity zones (0-0.5, 0.5-5, 5-15, 15-25, and >25). NOS staff analyzed the data to determine relative abundance of the mapped species by estuary, salinity zone, and month. For some species not in the ELMR database, distribution was classified as only observed or not observed for adult, juvenile, and spawning stages.

In general, reef fish are widely distributed in the Gulf, occupying both pelagic and benthic habitats during their life cycle. Habitat types and species' life history stages are summarized in Table 9 and can be found in more detail in GMFMC (2004a). In general, both eggs and larval stages are planktonic. Larvae feed on zooplankton and phytoplankton. Exceptions to these generalizations include the gray triggerfish that lay their eggs in depressions in the sandy bottom, and gray snapper whose larvae are found around submerged aquatic vegetation (SAV). Juvenile and adult reef fish are typically demersal, and are usually associated with bottom topographies on the continental shelf (<100 m) which have high relief, i.e., coral reefs, artificial reefs, rocky hard-bottom substrates, ledges and caves, sloping soft-bottom areas, and limestone outcroppings. However, several species are found over sand and soft-bottom substrates. For example, juvenile red snapper are common on mud bottoms in the northern

Gulf, particularly off Texas through Alabama. Also, some juvenile snappers (e.g. mutton, gray, red, dog, lane, and yellowtail snappers) and groupers (e.g. goliath grouper, red, gag, and yellowfin groupers) have been documented in inshore seagrass beds, mangrove estuaries, lagoons, and larger bay systems (GMFMC, 1981). More detail on hard bottom substrate and coral can be found in the FMP for Corals and Coral Reefs (GMFMC and SAFMC, 1982). Figures 6, 7, and 8 provide information on habitat use. Additionally, a list of high-relief reef fish habitat sites identified by Dr. Chris Koenig and Chris Gledhill off the Florida west coast are described in the FEIS for the Generic EFH Amendment (GMFMC, 2004a) and Amendment 22 to the Reef Fish FMP (GMFMC, 2004b).

6.1.4 Environmental Sites of Special Interest

Tortugas Shrimp Sanctuary - A shrimp nursery ground in the Florida Keys permanently closed to the use of trawls and harvest or possession of shrimp. This results in shrimp growing to about a 47 count/pound before harvest (3,652 square nautical miles).

Cooperative Texas Shrimp Closure - A shrimp nursery ground off Texas cooperatively closed by the Council and the state of Texas for typically 45 to 60 days out to either 15 or 200 miles. This closure results in shrimp growing to about 39 count/pound (5,475 square nautical miles).

Southwest Florida Seasonal Closure (Shrimp/Stone Crab) - Closure of federal and state waters to shrimping from November 1 through May 20 inshore of the line to protect juvenile stone crab and prevent loss of stone crab traps in trawls (4,051 square nautical miles).

Central Florida Shrimp/Stone Crab Separation Zones - Closure of state and federal waters to either shrimping or crabbing from October 5 to May 20. Crab or shrimp fishing alternate in Zones IV and V. (174 square nautical miles).

Longline/Buoy Gear Area Closure - Permanent closure to use of these gears for reef fish harvest inshore of 20 fathoms off the Florida shelf and inshore of 50 fathoms for the remainder of the Gulf (72,300 square nautical miles).

Florida Middle Grounds HAPC - Pristine coral area protected from use of any fishing gear interfacing with bottom (348 square nautical miles).

Madison/Swanson and Steamboat Lumps Marine Reserves - No-take marine reserves sited on gag spawning aggregation areas where all fishing, except seasonal trolling for highly migratory and coastal pelagic species is prohibited (219 square nautical miles).

Stressed Area - Permanent closure Gulf-wide of the nearshore waters to use of fish traps, power heads, and roller trawls (i.e., “rock hopper trawls”) (48,400 square nautical miles).

Flower Garden Banks HAPC - Pristine coral area protected by preventing use of any gear that interacts with the bottom. Subsequently, this area was made a marine sanctuary by NOS (41 square nautical miles).

Tortugas North and South Marine Reserves - No-take marine reserves cooperatively implemented by the state of Florida, NOS, the Council, and the National Park Service (185 square nautical miles).

6.2 Biological Environment

The action of this amendment would primarily affect reef fish species. Reef fish species in the Fishery Management Unit include:

Snappers
- queen snapper
- mutton snapper
- schoolmaster
- blackfin snapper
- red snapper
- cubera snapper
- gray (mangrove) snapper
- dog snapper
- mahogany snapper
- lane snapper
- silk snapper
- yellowtail snapper
- wenchman
- vermilion snapper

Wrasses
- hogfish

Groupers
- rock hind
- speckled hind
- red hind
- yellowedge grouper
- goliath grouper
- red grouper
- misty grouper
- warsaw grouper
- snowy grouper
- Nassau grouper
- black grouper
- yellowmouth grouper
- gag
- scamp
- yellowfin grouper

Triggerfishes
- gray triggerfish

Tilefishes
- goldface tilefish
- blackline tilefish
- anchor tilefish
- blueline tilefish
- tilefish

Jacks
- greater amberjack
- lesser amberjack
- Almaco jack
- banded rudderfish

Sand Perches
- dwarf sand perch
- sand perch

Detailed information on these species are described in the FEIS for the Generic EFH Amendment and in Amendment 22 to the Reef Fish Fishery Management Plan (GMFMC, 2004a; 2004b). This information is summarized below and are incorporated here by reference.

6.2.1 Reef Fish Life History

Reef fish species are found throughout the Gulf of Mexico, although some species are restricted to certain areas. Actual distributions of reef fish species can be found in the FEIS for the Generic EFH Amendment (GMFMC, 2004a). Most species are found over hard bottom, particularly for their adult life stage. See Section 9 for more detail based on life history stages.

Reef fish species managed in the EEZ are moderate- to long-lived with maximum known ages greater than 15 years (Table 10). Yellowedge grouper have the greatest estimated longevity of any managed reef fish species and are estimated to live as long as 85 years. The sizes of reef fish species are variable with some weighing less than 2 kg as adults (e.g., mahogany snapper and henchman), while others can achieve weights greater than 100 kg (e.g., warsaw and goliath grouper).

Managed reef fish species fall into two reproductive categories, protagonist and gonochoristic (Table 10). Protogyny is a form of sequential hermaphroditism where an individual transforms from female to male. Gonochoristic refers to species where sexes are always separate and is opposite of hermaphrodism. Most groupers and the hogfish are protagonist, while snappers, jacks, triggerfish, and tilefish are gonochoristic. Spawning seasons vary among reef fish species (Table 10). Some species spawn year-round or for extended periods with peaks in spawning such as the yellowmouth or yellowfin groupers. Others spawn at specific times and at specific locations, such as the Nassau grouper which times its spawning to the lunar cycle over a three month period. Species who form spawning aggregations are identified in Table 10.

Managed reef fish species are upper level predators feeding on fishes and benthic and pelagic invertebrates. Summaries of trophic relationships for these species can be found in Appendix C of GMFMC (2004a).

6.2.2 Status of the Reef Fish Stocks

The primary goal of federal fishery management, as described in National Standard 1 of the M-SFCMA, is to conserve and manage U.S. fisheries to "...prevent overfishing while achieving, on a continuing basis, the OY from each fishery for the United States fishing industry" (M-SFCMA §301(a)(1)). OY is defined in the M-SFCMA as the amount of fish that "will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, and taking into account the protection of marine ecosystems..." (M-SFCMA §3(28)).

To evaluate stocks so that they can be managed at levels that will produce OY, the M-SFCMA also requires that each FMP define reference points in the form of MSY and OY, and specify objective and measurable criteria for identifying when a fishery is overfished or undergoing overfishing. These status determination criteria are defined by 50 CFR §600.310 and include MSST, i.e., the overfished criterion, and a MFMT, i.e, the overfishing criterion. Fishery managers use the parameters MSST and MFMT to monitor the current level of biomass (B_{CURR}) and rate of fishing mortality (F_{CURR}) in a fishery in relation to B_{MSY} and F_{MSY}. MSST represents the threshold biomass level below which a stock would not be expected to be capable of rebuilding to B_{MSY} within ten years if exploited at MFMT. A stock with a biomass below the MSST (e.g., B_{CURR} < MSST) would be considered to be overfished. Once this designation is made, a rebuilding plan would need to be put in place to rebuild the stock to B_{MSY}. MFMT represents the maximum level of fishing mortality that a stock can withstand, while still producing MSY on a continuing basis. A fishery experiencing a fishing mortality rate that exceeds the MFMT (e.g., F_{CURR} > MFMT) would be considered to be undergoing overfishing.

The Reef Fish FMP applies to 42 species. Of these, 10 have had stock assessments performed by either NOAA Fisheries (red grouper, gag, goliath grouper, yellowedge grouper, red snapper, vermilion snapper,, greater amberjack, and gray triggerfish) or the Florida Fish and Wildlife Commission (yellowtail snapper and hogfish). The current status of assessed stocks

is shown in Table 11. Of the 10 reef fish species for which stock assessments have been completed and reviewed, four are classified by NOAA Fisheries as overfished (red snapper, vermilion snapper, greater amberjack, and goliath grouper). Rebuilding plans for greater amberjack and red snapper have been implemented. Proposed vermilion snapper and revised red snapper rebuilding plans are in the implementation process. While no formal rebuilding plan has been implemented for goliath grouper, current regulations prohibit the harvest of this species. A rebuilding plan for this species will be considered in Amendment 18 to the Reef Fish FMP.

Other stock assessments have indicated species are either not considered overfished or are in an unknown condition. Red grouper is no longer considered overfished because the stock size is estimated to be above MSST; however, it is still under a rebuilding plan because the stock size has not reached biomass at MSY (B_{MSY}). Gag were recently reclassified from not overfished but approaching an overfished condition to neither overfished nor undergoing overfishing. An assessment of yellowtail snapper indicated the stock was not overfished or undergoing overfishing. Stock assessments were not able to resolve the status of the gray triggerfish, hogfish, and yellowedge grouper stocks. Therefore, these stocks were classified as unknown for both overfished and overfishing status.

With the exception of Nassau grouper, the status of the remaining reef fish species that have not been assessed is classified as unknown. While no assessment was conducted on Nassau grouper due to insufficient data, landings showed a progressive trend from being abundant to being a rarity from 1979 to 1992 (GMFMC, 1996). Therefore, this stock is considered overfished, and to protect the stock, harvest has been prohibited.

Many of the reef fish stock assessments and reviews can be found online at the Council's website (www.gulfcouncil.org). In addition, Southeast Data Assessment and Review (SEDAR) workshop products can be viewed on the SEFSC's website (www.sefsc.noaa.gov). Additionally, more complete descriptions of the stock status for some of these species are provided in the GMFMC (2004a), and Amendment 22 to the Reef Fish FMP (GMFMC 2004b).

Four reef fish species have been listed by NOAA Fisheries as candidate species for endangered or threatened species status. Goliath grouper and Nassau grouper were listed in 1991, and Warsaw grouper and speckled hind were listed in 1997. Inclusion in the candidate list did not mean that these species were threatened or endangered, but that NOAA Fisheries had documented evidence that the biological status of a species had declined and that the species faced a high degree of threat. However, in 2004, NOAA Fisheries changed their status to "species of concern." Under the ESA, a candidate species is one that is being considered for listing as an endangered or a threatened species. However, most former candidate species had uncertain biological status and threats, and were not actively being considered for listing under the ESA. Therefore, to better reflect the purposes of the list that NOAA Fisheries maintains, only those species actively considered for ESA listing are also candidate species. Otherwise, species are now considered species of concern (64 FR 19975).

Recognizing the uncertainty about these stocks, the Council and NOAA Fisheries have acted to protect their populations. For goliath and Nassau grouper, the Council has prohibited the harvest of these species by any sector of the fishery (Amendments 2 and 14, respectively). For Warsaw grouper and speckled hind, the Council reduced the recreational bag limit to one each per vessel (not per person) through Amendment 16b. This action was intended to discourage targeting of these species by recreational fishermen, but also to avoid wasting fish that might be caught inadvertently while targeting other species. Additionally, for the commercial fishery, these two species are in the deep-water grouper complex of which the fishery primarily lands yellowedge grouper (72% based on commercial landings reported by the Fisheries Statistics & Economics Division, NOAA Fisheries, Silver Spring, MD). This fishery was managed under a quota of 1.6 mp whole weight (1.35 mp gutted weight); however, the quota was recently reduced to 1.02 mp gutted weight by Secretarial Amendment 1 and so provides added protection for these species.

6.2.3 Protected Species Under the ESA and MMPA

There are 28 cetacean, one sirenian, and one non-native pinneped (California sea lion) species that have confirmed occurrences in the Gulf (Davis and Fargion, 1996). All of these species are protected under the MMPA. Additionally, six of these species (blue, fin, humpback, right, sei, and sperm whales) are a listed as endangered species under the ESA. All five species of the sea turtles found in the Gulf (Kemp's ridley, loggerhead, green, leatherback, and hawksbill) are protected under the Endangered Species Act (ESA). The endangered smalltooth sawfish is the only marine fish species listed under the ESA that is known to occur in federal Gulf waters. Information on the biology and status of all of these protected species is provided in GMFMC (2004a).

Endangered whales are not known to be adversely affected by reef fish fisheries because they are extremely unlikely to overlap geographically with the reef fish fishery. Sperm whales are the most abundant large cetacean in the Gulf and are found throughout the Gulf year-round, but in waters greater than 200 m (Schmidley 1981, Hansen et al. 1996, Davis et al. 2002, Mullins and Fulling 2003), beyond where reef fish fishing occurs. Other endangered whales (blue, fin, humpback, right whale, and sei whales) are either uncommon or rare in the GOM. Individuals observed have likely been inexperienced juveniles straying from the normal range of these stocks or occasional transients (Mullin et al. 1994, Würsig et al. 2000). There are no documented interactions between the reef fish fishery and any marine mammals.

Interactions between the reef fish fishery and sea turtles do occasionally occur. Poffenberger (personal communication) reviewed supplementary discard data from reef fish fishery for two survey years (1/8/2001 through 7/31/2002 and 1/8/2002 through 7/31/2003) and found 16 reported interactions with turtles. These interactions were reported for 14 trips. Five of the trips were with bottom longline gear and nine of them were with handline (vertical) gear. All but three of the turtles were not identified by species (i.e., reported as unknown or unclassified). The reported species were two loggerhead turtles and one green turtle.

On April 1, 2003, NOAA Fisheries listed as endangered the U.S. population of smalltooth sawfish. The decline in smalltooth sawfish abundance is attributed to bycatch in various fisheries, compounded by habitat degradation. Historically, the U.S. population was common throughout the Gulf from Texas to Florida, and along the east coast from Florida to Cape Hatteras. The current known distribution of smalltooth sawfish extends from the central Florida Panhandle to northern Georgia. The species is only found with any regularity in Gulf of Mexico state waters from Naples, Florida to Florida Bay, with reduced numbers occurring in areas outside this center of abundance (Simpfendorfer 2003). Small (young) animals are restricted to very shallow waters, thus do not overlap with the Gulf of Mexico reef fish fisheries. Large animals roam over a much larger depth range, with records of fish being captured in over 230 ft (70 m) of water depth (Simpfendorfer 2001). These larger animals may be vulnerable to capture by any reef fish bottom longline or handline gear encountered. NOAA Fisheries, however, does not have any documented reports of smalltooth sawfish taken by the Gulf of Mexico reef fish fishery.

6.3 Social and Economic Environment

6.3.1 Economic Environment

Section 4.4 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 Gulf reef fish fishery. Approximately 1,161 vessels were permitted to fish in the Gulf reef fish fishery in 2003, of which only 809 recorded Gulf reef fish landings in the mandatory logbook reporting system. These 809 vessels harvested approximately 17.3 MP of Gulf reef fish in 2003, valued at $35.72 million in gross revenues, and received $37.15 million in gross revenues from sales of all logbook reported landings on the trips that harvested Gulf reef fish.

Certain species in the fishery are managed individually (e.g., red snapper, vermilion snapper, and greater amberjack), while other species are managed within groups or complexes (e.g., shallow-water groupers, deep-water grouper, and tilefish). Among the management measures imposed, some species and complexes are subject to hard quotas (e.g., red snapper, red grouper, shallow water groupers, deepwater groupers, and tilefishes), while other species are managed through bag, size and trip limits (e.g., vermilion snapper, other snappers, triggerfish, etc.). Fishery closures have occurred for red snapper and grouper.

6.3.2 Social Environment

Social and Community Profiles

There is very little qualitative information on fishermen, fishing-dependent businesses, or communities that depend on the reef fish fishery. In order to understand the impact that any new rules and regulations will have on participants in the reef fish fishery, 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. 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 reef fish fishery.

If the reef fish permit moratorium is allowed to expire it is expected that more people will try to enter into the fishery. This would increase the competition for reef fish and could make it necessary to place greater restrictions on the fishery in order to continue with stock rebuilding plans. Most fishermen who participate in the reef fish fishery also participate in other fisheries. Fishermen who already have a reef fish permit may have difficulty trying to make up for the harvest they could potentially lose if there are more participants fishing for the same amount of fish. 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.

Even if the reef fish fishery accounts for only a portion of the income earned by a fisherman who has a permit, it is an important part and may mean the difference in someone being able to continue to make a living fishing, and the necessity to seek other types of employment. If the reef fish fishery were to experience early seasonal closures, or 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 reef fish fishery. If there are changes made to the current regulations for the reef fish fishery, it is assumed that the regulations would have the most impact in communities where the most reef fish are landed, the most income from reef fish earned, the most boats are permitted for reef fish, and where the fishermen who fish for reef fish live.

In order to identify communities that are at least in part dependent on the reef fish fishery, landings data for the Gulf were used along with permit data that shows permits by homeport and permits by address. By comparing all of these data, it is possible to determine which counties may be most affected by changes in regulations that may affect fishermen, fishing-dependent businesses, and communities that depend on the reef fish fishery.

Pinellas County, Florida landed the most pounds of reef fish in 2000 with 5,180,529 pounds being landed. In 2003 there were 4,888,580 pounds landed in Pinellas County (Table 12). Bay County, Florida had the second highest landings by pounds in 2000 and 2003 with 1,985,697 pounds landed in 2000, and 2,037,300 pounds landed in 2003 (Table 12). Demographics of Pinellas County and Bay County, based on the U.S. 2000 Census, are listed in Table 13 and Table 14. According to the 2000 census data, 817 people in Pinellas County and 407 people in Bay County listed their occupation under the category for farming, fishing, and forestry. Although the census data lumps agriculture, forestry, and fishing under the occupation category, it is to be assumed that most of the people in Pinellas County who listed this category for their occupation are in the fishing business since there is little agriculture or forestry in the county.

The pounds of reef fish landed in any one port change from year to year. Table 12 shows the number of pounds landed for the top producing counties in the Gulf for 2000 and 2003. This table also shows the total ex-vessel value of all the reef fish landed for 2000 and 2003 in each county which shows the overall value of landings coming into each area. Although these numbers do not help to describe the counties, the landings data do give an idea of which counties may be most impacted by any changes in the reef fish fishery.

Within Pinellas County, Madeira Beach had the most number of permits for reef fish listed by homeport with a total of 49 boats in 2004. There were 13 vessels permitted by mailing address in Madeira Beach in 2004. For this reason, the demographics of Madeira Beach are shown in Table 15. Although the demographics do not adequately describe the amount of dependency that any one community has on fishing, they do provide us with a starting point for understanding the community structure of places that depend on the reef fish fishery. Madeira Beach is an island in Pinellas County that derives much of its income from tourism. There are many hotels, shops, and restaurants that cater to tourists who come to enjoy this island in the Gulf of Mexico. There are also many condominiums that are owned and used seasonally by people from northern states. Due to the amount of tourism, and the number of people who own vacation condominiums in Madeira Beach, real estate is expensive. For these reasons, many of the people who fish out of Madeira Beach live in other locations throughout Pinellas county and surrounding areas. None the less, Madeira Beach is an important area for the reef fish fishery.

When one examines the demographic data for Pinellas County, Bay County, and Madeira Beach, the importance of fishing to the communities may not be readily evident. However, based on the amount of reef fish landed in these counties, it is assumed that there are many people who depend on the reef fish fishery and other fisheries. For Pinellas County, ex-vessel price for all fish landed was $12,424,569 in 2000, and $11,822,054 in 2003. For Bay County the ex-vessel price of all fish landed was $6,815,089 in 2000 and $7,073,437 in 2003. By extending the reef fish permit moratorium, or by establishing a limited access system for the reef fish fishery in the Gulf of Mexico, there will continue to be a cap on the number of reef fish permits. This will aid in the management of the fishery and allow the continued recovery and rebuilding of stocks that are now in decline and allow the permitted fishermen to continue to derive income from the reef fish fishery.

6.4 Administrative Environment

6.4.1 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 is divided between the US Secretary of Commerce and eight regional fishery management councils that represent the expertise and interests of constituent states. Regional councils are responsible for preparing, monitoring, and revising management plans for fisheries needing management within their jurisdiction. The Secretary of Commerce (Secretary) is responsible for promulgating regulations to implement proposed plans and amendments 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 Council is responsible for fishery resources in federal waters of the Gulf of Mexico. These waters extend to 200 nautical miles offshore from the nine-mile seaward boundary of the states of Florida and Texas, and the three-mile seaward boundary of the states of Alabama, Mississippi, and Louisiana. The length of the Gulf coastline is approximately 1,631 miles. Florida has the longest coastline of 770 miles along its Gulf coast, followed by Louisiana (397 miles), Texas (361 miles), Alabama (53 miles), and Mississippi (44 miles).

The Council consists of seventeen voting members: 11 public members appointed by the Secretary; one each from the fishery agencies of Texas, Louisiana, Mississippi, Alabama, and Florida; and one from NOAA Fisheries. The public is also involved in the fishery management process through participation at public meetings, on advisory panels and through council meetings that, with few exceptions for discussing personnel matters, are open to the public. The regulatory process is 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 FMPs are enforced through actions of the NOAA's Office of Law Enforcement, the USCG, and various state authorities. To better coordinate enforcement activities, federal and state enforcement agencies have developed cooperative agreements to enforce the M-SFCMA. These activities are being coordinated by the Council's Law Enforcement Advisory Panel and the Gulf States Marine Fisheries Commission's (GSMFC) Law Enforcement Committee have developed a 5-year "Gulf of Mexico Cooperative Law Enforcement Strategic Plan - 2005-2010."

6.4.2 State Fishery Management

The purpose of state representation at the council level is to ensure state participation in federal fishery management decision-making and to promote the development of compatible regulations in state and federal waters. The state governments of Texas, Louisiana, Mississippi, Alabama, and Florida have the authority to manage their respective state fisheries including enforcement of fishing regulations. Each of the five Gulf states exercises legislative and regulatory authority over their states' natural resources through discrete administrative units. Although each agency listed below is the primary administrative body with respect to the states natural resources, all states cooperate with numerous state and federal regulatory agencies when managing marine resources. More information about these agencies can be found in GMFMC (2004b) and from the following webpages:

Texas Parks & Wildlife Department - http://www.tpwd.state.tx.us
Louisiana Department of Wildlife and Fisheries - http://www.wlf.state.la.us/
Mississippi Department of Marine Resources - http://www.dmr.state.ms.us/
Alabama Department of Conservation and Natural Resources - http://www.dcnr.state.al.us/
Florida Fish and Wildlife Conservation Commission - http://www.floridaconservation.org/

7.0 ENVIRONMENTAL CONSEQUENCES

7.1 Direct and Indirect Effects on the Physical Environment

The action proposed in this amendment would not have any significant direct or indirect impacts on the physical environment because it would not affect the way the fishery is currently conducted. 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, longline, and fish trap gear are allowed, and fish traps will be prohibited in 2007. Longline gear can cause impacts during the retrieval process (GMFMC 2004a); however, regulations are in effect to prevent the use of this gear in known coral areas, and to the extent that additional information on coral areas are available, the Council is developing an additional generic EFH amendment that will consider further prohibitions on the use of longline gear on or near known hard coral reefs. However, none of the alternatives considered in this amendment would cause any significant additional impacts to the physical environment.

Proposed 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, respectively, would have the same effect as Proposed Alternative 4 because they accomplish the same goal but for a fixed 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. Impacts could be in the form of increased pollution from vessels and increases in the number of vessels fishing in a given area at a given time. Such is not likely to occur because approximately 70% of the annual catch from the reef fish fishery consists of species that are managed by a hard quota which when met, the fishery or that fishery component is closed. Consequently, even an increase in the number of participants would not likely increase available effort. Effort would only be spread over a larger number of participants (see Section 7.2 below).

7.2 Direct and Indirect Effects on Biological/Ecological Environment

Section 3.0 provides an analysis of the potential biological and ecological impacts and is incorporated here by reference. In summary, there should be no significant adverse biological impacts to the reef fish resources or associated species from the choice of any of the alternatives to either allow the reef fish permit 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 result in an increase in the number of permits, it is not likely to result in an increase in effort for reef fish because the majority (approximately 70%) of the total annual harvest, consisting of the most valuable reef species (red snapper and shallow- and deep-water groupers) is governed by hard quotas that prohibit harvest when the quotas are met. Other species harvested in lesser quantities (14% of the total annual commercial harvest) and not governed by hard quotas are greater amberjack and vermilion snapper. Commercial catches of greater amberjack have fallen from slightly over 2.0 MP in the early 1990's to slightly over 1.0 MP in 2003, ostensibly because of the implementation of a 3-month closed season. Also, under Amendment 23, scheduled for implementation in 2005, a closed season and an increased minimum size limit are projected to reduce commercial harvests of vermilion snapper by over 26%. It is highly improbable that new entrants could target nonquota-monitored stocks and maintain an economically viable business. This statement is supported by data showing no significant increases in annual landings of these species since 2000 when a February 15 to March 15 closure of the commercial gag, red, and black grouper fishery occurred (Strelcheck 2004). Consequently, allowing additional participants to enter the fishery is not likely to increase effective effort and fishing mortality; it would only spread F over a larger number of fishermen.

Additionally, an increase in effort as might occur with Alternative 1 is not likely to result in increased bycatch and bycatch mortality, unless participants continued to fish for other species that are not managed by hard quotas. As discussed in the previous paragraph, such action is not likely to occur.

The indirect effects of Alternatives 2, 3, or Proposed Alternative 4 are expected to be beneficial because those alternatives would prevent participation in the fishery from increasing above current levels. Consequently, they would prevent any potential for adverse biological impacts associated with the no action Alternative 1. 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.

7.3 Direct and Indirect Effects on the Economic Environment

Additional discussion on the expected impacts of these alternatives is contained in Section 4.4 and is 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 limit on 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 $5,000 to $8,000. This market system allows not only the entry of new participants but also allows some compensation for those who exit. An estimated 1,169 vessels were permitted to participate in the fishery in 2003. An estimate of the average number of transfers per year is unavailable, but approximately 253 of the 2003 permits had been transferred at least once. The annual producer surplus for this fishery under the current moratorium is estimated to be $404,500 to $647,200.

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 a limit on access. 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 4.3). This would be expected to result in an increase in participation in the fishery, but not necessarily harvests, since other regulatory factors appear to largely determine total harvests. This additional effort would be expected to 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 Proposed Alternative 4 would continue the limit on access and the benefits associated with it. 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 continued limit on access 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 $450,000 to $720,000 by 2010, and $484,000 to $775,000 by 2015 (see Section 4.4 for discussion of the assumptions utilized in the generation of these projections).

Although Alternatives 2, 3, and Proposed Alternative 4 vary in duration, no differential impacts are expected due to the different time horizons the alternatives may imply. This is due to the fact that since fishery stabilization is an objective of the Council, 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 limited access system (Proposed Alternative 4) 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 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, Proposed 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 Proposed Alternative 4 in that they would require administrative action in order to continue the limit on access beyond the specified time frames. Thus, an indirect effect of the adoption of either of these alternatives would be the requirement 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 Proposed Alternative 4. However, on the flip side, if Proposed Alternative 4 were adopted and it was 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.

7.4 Direct and Indirect Effects on Social Environment

This amendment addresses whether or not to allow the current moratorium on commercial reef fish permits to expire on October 15, 2005, to extend the moratorium, or to establish a license limitation system for the commercial reef fish fishery. If Alternative 1 is chosen, and the moratorium is allowed to expire, there could be an increase in effort 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 reef fish fishery. If the number of people participating in the reef fish fishery were to increase, it may be difficult for the Council to manage the fishery to reach the desired OY level as prescribed by the M-SFCMA. The reef fish fishery in the Gulf is managed by quotas, so there is little room for expansion in the fishery.

At present, the only way to enter the commercial reef fish 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 1992, the number of active permits has continued to decline. This may have helped to stabilize the fishery. If the moratorium on commercial reef fish 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, to restrict the amount of catch per boat, or adopt other measures for limiting harvest in this fishery. Therefore, if more people were to enter the fishery, there would be less profit to be made by all of the participants currently involved.

According to letters received and responses generated at the scoping meetings for mackerel and reef fish, many of the fishermen who currently have a reef fish 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, which could increase the effort and increase the chance that the quota 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 reef fish fishery because they thought they could make it profitable to fish for reef fish 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 each fisherman 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 that by

having a limited permit system in place, it would help protect the reef fish 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 due to the limited amount of data concerning the reef fish fishery and its participants. Since there is no historical data to describe reef fish fishery participants, reef fish-dependent businesses, or fishing communities that participated in the fishery prior to the implementation of the moratorium, 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 reef fish fishery, complete community profiles need to be developed for communities that meet the definition of a "fishing community" as described in the M-SFCMA.

The NMFS is conducting social science research in some communities in the Gulf of Mexico that are dependent on the reef fish fishery. This should aid in the description of affected communities in future amendments for the reef fishery.

If the Council chooses Alternative 1, the alternative 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 putting more pressure on the fishery. If the Council chooses Alternatives 2 or 3, there would continue to be a cap on the number of permits. This would allow the Council more time to decide upon other measures to limit effort in the fishery and to achieve the desired OY. It would also allow time to evaluate the fishery and to see if effort continues to decline in the fishery making it easier to achieve OY. Although the choice of Alternatives 2, 3, or Proposed Alternative 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 Council.

Proposed Alternative 4 would establish a limited access system and would protect the people with permits for now. Fishermen who have permits would then be able to protect their investment in 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.

Overall, if the Council chooses Alternative 2, 3, or Proposed Alternative 4, there should be minimal impacts on the current participants in this fishery since the fishery is already managed under a system that caps the number of permits. At present, there are permits available for sale if someone wishes to enter the reef fish fishery. If the moratorium is extended, or if the Council establishes a license limitation system for the commercial reef fish fishery, effort in the fishery could increase, but not catch because the number of permits available would remained capped.

This amendment should not have major impacts on fishermen, fishing-dependent businesses, or fishing communities since it is still possible to enter into the reef fish 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 fishery, if the moratorium were to expire since the cost of buying an available permit may be too high. Because most participants in the reef fish fishery also participate in other fisheries and reef fish 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 current restrictions on the reef fish fishery the potential for the fishery to be shut down if the quota is met or exceeded.

In comparing the four alternatives, if Alternative 1 is chosen, there would be a short-term gain by allowing more fishermen into the fishery, but this could also increase the effort 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, and Proposed Alternative 4 offer the least negative social impacts overall. If the moratorium is extended, or if the Council establishes a license limitation system for the commercial reef fish fishery, then it will allow the Council to continue to manage the fishery to meet the OY levels as required by the M-SFCMA. This will continue to cap effort in the reef fish fishery and allow the current participants to catch the most fish allowable before the quota is met.

7.5 Direct and Indirect Effects on Administrative Environment

Alternative 1, which would return the reef fish fishery to open access, would allow anyone to purchase a commercial reef fish 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 effort would probably result in earlier closures. 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. Alternatives 2, 3, and Proposed Alternative 4 would make no changes to the current management program. The only difference would be in its duration of the prohibition on issuance of new commercial reef fish permits, i.e., 5 years, 10 years, or indefinitely. Since there would be no changes to current administrative activities from any of these alternatives, no additional impacts to the administrative environment would occur. Under the choice of Alternative 2 or 3, and assuming that the number of vessels does not decline to an optimal level in 5 or 10 years, respectively, an additional amendment would have to be developed in order to maintain a limit on access. Such a condition would result in impacts to the administrative environment associated with the development of such an amendment including: staff time, possible scoping meetings, public hearings, Council's time, and reviews by the Council's Scientific and

Statistical Committees (SSCs) and possibly Reef Fish AP. Proposed Alternative 4 would continue the limitation on access until such time as the Council determines that it is no longer needed or replaces it with some other form of limited access, e.g. IFQs. Thus, Proposed Alternative 4 would avoid potential administrative burdens that would be associated with developing an additional amendment to continue a cap on the number of permittees as could result from the choice of Alternatives 2 or 3.

7.6 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.

7.7 Cumulative Effects

Continuation of a limit on access in the commercial reef fish 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 the other management measures described in Section 1.2. This will contribute to the overall improvement in benefits as fishery performance improves in other fisheries or, aid in offsetting adverse impacts that accrue from other regulatory actions. Reversion to an open access system in the fishery is expected to reduce 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 red grouper or gag stocks because these have primarily come from hard TACs that have limited commercial harvests, as well as bag and minimum size limits. The status of other important reef fish species, i.e., greater amberjack and vermilion snapper have or will improve due to the imposition of closed seasons and minimum size limits.

7.8 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.

7.9 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 effort 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 reef fish resources. Consequently, this action should provide greater stability to these fisheries in the long run.

7.10 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 action should not increase or otherwise change the cost or reduce the revenues of affected vessels/boats and current fishery participants.

7.11 Any Other Disclosures

No additional disclosures are known to be needed or discussed.

8.0 FINDING OF NO SIGNIFICANT IMPACTS

The Gulf of Mexico Fishery Management Council (Council) is submitting the attached Amendment 24 to the Reef Fish Fishery Management Plan in the Gulf of Mexico for Secretarial review under procedures of the M-SFCMA. This amendment was developed as an integrated document that includes an Environmental Assessment (EA), RIR, and Regulatory Flexibility Act Analysis. Copies of the amendment are available from the Council at the following address:

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

Through this amendment, the Council proposes to:

Establish a limited access system for the commercial fishery for Gulf reef fish. All vessels with valid permits on the date that this amendment is approved will be issued a commercial reef fish permit, and permits will be renewable and transferable in the same manner as currently prescribed for such permits.

Limited access via a permit moratorium was begun in the commercial Gulf reef fish fishery in 1992 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 number of vessels that have permits has been falling at about 2% per year since 2001, while the number of vessels that have permits and actually land Gulf reef fish has declined by an average rate of 1.15% per year (Tables 4 and 7). 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 and 3 would continue the moratorium for a 5- or 10-year period, respectively. Proposed Alternative 4 would establish a limited access system that effectively accomplishes the same purpose as the moratorium without an expiration date, thereby continuing the market-

based participation system. Although the rate of decline may change, if the number of permitted vessels declines by 2.0% per year, then the number of permitted vessels is estimated to be 1,000 in 2010 (in 5 years under Alternative 2) and 904 in 2015 (in 10 years under Alternative 3). No projections are made for Proposed Alternative 4 because it provides for an indefinite cap on the number of participants. A decrease in the number of permitted vessels would lead to an expected decrease in the number of vessels landing Gulf reef fish and, thereby, to an expected increase in producer surplus from that in 2003, an estimated $484,000 to $775,000 by 2015.

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 $404,500 to $647,200 in 2003. Consequently, it would interject economic instability, thereby potentially negating one of the major purposes of limiting access.

The Council on Environmental Quality regulations implementing the NEPA and NOAA's Administrative Order (NAO) 216-6 require that decisionmakers 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 action are detailed in Section 7.0 and summarized in Section 3.0. These impacts are not expected to be significant.

The proposed action would establish a permanent/indefinite limited access program for the reef fishery that would continue the existing restrictions on participation. This limited entry program, initiated in 1992, has led to a reduction in the number of permitted fishermen over time. There were 1,718 permitted vessels and 1,046 vessels with landings in 1993; however, only 1,155 vessels had valid permits for commercial fishing for Gulf reef fish as of February 6, 2004, and only 1,012 (87.6%) had nominal landings (1 pound or more) during at least 1 of the 6 years 1998-2003. Based on an expected continuation of the decline in the number of permitted vessels of 2.0% per year, and 1.15% for vessels landing Gulf reef fish, then an estimated 1,000 vessels would be expected to be permitted and 783 vessels would be expected to land Gulf reef fish in 2010, when the moratorium established by Alternative 2 would expire. The respective totals for Alternative 3 are 904 vessels and 739 vessels in 2015. Consequently, the moratorium is believed to have benefitted reef fish stocks and participants by limiting participation and effort in the fishery. However, such benefits are not viewed as significant due to the fact that permits would remain transferrable, and the major factor affecting commercial harvest is the TAC.

(2) Public Health or Safety:
The proposed action would maintain the cap on the number of permits in the reef fish fishery by extending the limited access program for an indefinite period. This action would not alter or affect the manner in which the fishery is conducted, and it is 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 additional participation that could cause quotas to be met sooner and thereby creating a derby fishery. Consequently, there would be a reduced 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 proposed action in this amendment would not significantly impact the physical environment because it would not affect the way the fishery is currently conducted, and the majority of the species in the reef fish fishery are managed by a hard TAC. Therefore, no matter how many participants are involved, when the quotas are filled, the fishery or its quota component is closed.

The Council and NOAA Fisheries have determined that the proposed action is consistent with the enforceable provisions of the Coastal Zone Management programs of the affected states (see Section 9.2). There would be no effect on park lands, prime farmlands, wetlands, or wild and scenic rivers because those resources are onshore or near shore, not in the EEZ. Reef fish fishing does occur in or adjacent to sensitive areas such as HAPCs, marine sanctuaries, and marine reserves. However, most reef fish are caught with hook-and-line gear, and longline gear. Longlines and bouy gear are prohibited in these areas and in nearshore habitats (inside of 50 fathoms west of Cape San Blas, Florida, and inside of 20 fathoms east of Cape San Blas, Florida. Hook-and-line gear could become entangled within those structures; however, such impacts to hard-bottom habitat are expected to be minimal.

The area affected by the proposed action includes areas that have been identified as EFH for several other managed species. However, the proposed action in the context of the fishery as a whole is not anticipated to have a significant adverse impact on EFH because it would not alter the conduct of the fishery.

(4) Highly Controversial effects on Human Environment: The proposed action is not considered to be highly controversial. The Council has provided for input by the public through committee and Council meetings that are open to the public and through meetings with the Reef Fish Advisory Panel. Public comment received during the scoping process has been in support of the proposed action.

(5) Uncertain, Unknown, or Unique Risks: There are no highly uncertain, unique or unknown risks associated with indefinitely continuing the limit on access to the reef fish fishery as proposed in this amendment. Additionally, the public has expressed support for maintaining the limit on access.

(6) Precedence: The proposed action to maintain a limit on access in the reef fish fishery would not establish new precedence that would represent a decision in principle about a future consideration. The moratorium is a form of limited access, albeit typically applied as a temporary measure, has been in effect since 1992; and the proposed action only continues it, indefinitely.

(7) Jeopardy to the sustainability of target and non-target species: The proposed action is not expected to jeopardize the sustainability of target or non-target species. As previously stated, catch of target species is primarily controlled by hard quotas, minimum size limits, bag limits, and trip limits, and it is unlikely that additional targeting of other species can be accomplished economically. Given that 70% of the harvest is composed of fish stocks that are managed under hard TACs, there would probably not be an expansion of effort that would increase the opportunity for additional fishing mortality on target or non-target species (see Sections 7.1 and 7.2). Additionally, incidental take is usually made up of managed and nonmanaged species that are not known to be in jeopardy from fishing, e.g., grunts and porgies. A formal Section 7 consultation for the reef fish fishery in the Gulf is currently under development. The Sustainable Fisheries Division of the Southeast Regional Office of the NMFS will confer with the Protected Resource Division to determine of a reinitiation of consultation is necessary for this amendment. However, the reef fish 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 reef fish, the species to which they interact, or their ecosystems in the Gulf. Biodiversity and the functional aspects of ecosystems on which reef fish 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 would only allow the current number of vessels that are permitted to harvest reef fish to remain in the fishery; therefore, this action would not cause any change to current fishing effort, methods, gear, etc. Consequently, no impacts to biodiversity or the function of ecosystems are expected to occur.

(9) Cumulative impacts to target and nontarget species and the environment: The potential impacts of the proposed action is discussed in Section 7.7, and are expected to be positive, but not significant either individually or when combined with past or reasonably foreseeable future actions. The cumulative impacts of this action and previous actions to manage reef fish stocks have shown positive impacts as evidenced by improved stock conditions for red grouper, gag, greater amberjack, red snapper, and other species.

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

(11) Endangered Resources: A formal Section 7 consultation for the reef fish fishery in the Gulf is currently under development. The Sustainable Fisheries Division of the Southeast Regional Office of the NMFS will confer with the Protected Resource Division to determine if a reinitiation of consultation is necessary for this amendment. However, the reef fish 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.

(12) Interaction With Existing Laws for Protection of the Environment: The proposed action 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 action to establish a limited access system for the commercial reef fish fishery in the Gulf of Mexico would not significantly affect the quality of the human environment. Accordingly, preparation of a supplemental environmental impact statement 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 reef fish fishery 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, and Texas to the maximum extent possible. This determination has been submitted to the responsible state agencies under Section 307 of the Coastal Zone Management Act 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 preformed.

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 may affect but are not likely to adversely affect" endangered or threatened species or designated critical habitat. Formal consultations, including a biological opinion, are required when proposed actions may affect and are "likely to adversely affect" endangered or threatened species or adversely modify designated critical habitat. If jeopardy or adverse modification is found, the consulting agency is required to suggest reasonable and prudent alternatives.

9.5 Executive Orders

9.5.1 E.O. 12612: 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 action proposed in this amendment. Therefore, consultation with state officials under Executive Order 12612 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 action 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 action 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 action 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 action 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 Reef Fish 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 the action proposed in this amendment because it makes no changes to fishing activities.

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 MMPA established a moratorium, with certain exceptions, on the taking of marine mammals in U.S. waters and by U.S. citizens on the high seas, 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 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.

9.7 National Environmental Policy Act

The National Environmental Policy Act (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.

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 action proposed in this amendment only maintains a cap on the current level of commercial reef fish permits that are allowed in the fishery, 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. The action proposed in this amendment would have no implications to the MBTA because fishing for reef fish 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 action proposed in this amendment would have no impact to any national marine sanctuaries because it only involves commercial permits for reef fish.

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 most types of fishery information from the public.

If the moratorium on issuance of new commercial reef fish permits is not extended or a limited access system is not adopted, additional paperwork would ensue for both the new permittees in the form of applications and for NOAA Fisheries through issuance of such permits. However, since this is not the proposed alternative, the number of permits that are issued would remain the same or perhaps be reduced due to attrition. Consequently, there would be no changes from the current requirements.

9.11 Regulatory Flexibility Act

The Regulatory Flexibility Act (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.

To address these requirements the Council 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 Proposed 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 NOA for the FEIS on June 25, 2004 (FR, vol.69, no.122, p.35598) and the NOA for the ROD on July 29, 2004 (FR, vol.69, no.145, p.45307).
There are no implications to EFH in this amendment as discussed in the FONSI.

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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

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13.0 LIST OF AGENCIES CONSULTED

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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
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Louisiana Cooperative Extension Service
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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
National Marine Fisheries Service

15.0 TABLES

Table 1. Logbook-reported landings of Gulf reef fish by vessels with Gulf reef fish permits for the top-10 species in estimated ex-vessel value (1993-2003)

Species	Percentage of dollar value		Million 2001 $, 11-yr sum	Million pounds, 11-yr sum
	By species	Cumulative		
red grouper	25.4%	25.4%	$108	56
red snapper	23.0%	48.4%	$98	45
gag grouper	12.1%	60.5%	$52	21
vermilion snapper	9.6%	70.1%	$41	22
yellowedge grouper	5.1%	75.2%	$22	9
king mackerel	3.6%	78.8%	$15	13
yellowtail snapper	2.7%	81.5%	$12	6
greater amberjack	2.2%	83.7%	$9	9
tilefish	1.7%	85.4%	$7	5
scamp	1.7%	87.1%	$7	3
Other	12.9%	100.0%	$55	
all species landed	100.0%	100.0%	$426	242

Source: NMFS southeast coastal fisheries logbook-reported data for 1993-2003.

Table 2.--Real ex-vessel prices of selected Gulf reef fish, 2001 cents per pound

Year	grouper, yellowedge	grouper, red	grouper, black	grouper, gag	scamp	greater amberjack	snapper, red	snapper, vermilion	snapper, yellowtail	triggerfish, gray
Gulf of Mexico Region										
1986	213	208	254	253	256	68	276	189	236	72
1987	238	202	248	247	256	73	285	211	269	76
1988	228	203	270	273	274	81	285	192	249	92
1989	229	185	235	245	253	96	283	197	243	87
1990	217	205	235	246	242	81	289	192	243	89
1991	215	196	236	244	253	84	273	190	247	96
1992	206	184	205	224	231	77	218	188	220	97
1993	213	180	205	226	229	94	215	181	214	109
1994	228	194	221	242	244	100	222	181	214	98
1995	217	176	222	228	239	107	211	189	209	105
1996	235	192	230	239	245	105	192	188	209	110
1997	233	192	232	242	245	109	184	187	213	103
1998	248	201	245	250	250	114	225	204	215	106
1999	248	201	240	252	251	115	210	199	206	113
2000	246	195	238	249	248	109	217	197	202	117
2001	256	192	236	245	245	97	221	188	195	111
2002	260	188	238	241	244	98	228	183	204	115
2003	243	195	236	247	245	88	229	181	191	117
South Atlantic Region										
1986	219	201	254	240	233	46	360	243	256	63
1987	235	197	248	246	235	59	352	240	270	67
1988	216	219	290	262	250	46	346	222	274	78
1989	243	211	259	236	230	46	331	230	260	86
1990	226	192	259	242	235	50	329	226	255	86
1991	222	198	258	260	248	64	329	226	233	79
1992	208	187	225	248	243	55	304	234	224	82
1993	217	189	231	249	244	68	300	225	223	84
1994	237	207	246	249	246	86	281	225	221	80
1995	240	195	248	244	238	86	279	230	232	80
1996	235	204	241	248	249	82	278	224	232	82
1997	228	202	246	258	256	85	279	239	244	82
1998	248	214	261	273	266	94	291	248	244	86
1999	242	214	257	271	269	87	290	248	241	89
2000	245	212	196	269	270	88	282	241	236	102
2001	250	213	266	267	267	74	272	222	218	101
2002	267	217	271	275	272	77	283	232	236	101
2003	257	212	248	263	260	72	258	233	215	106

Source: SEFC, ALS, file date, 22 Jul 2004 for 1997 onward, 4 Apr 02 for earlier years. Based on allocating landings among species codes to approximate what is done for stock assessment purposes, as explained by Strelcheck (2004).

Table 3.–Vessels with valid permits to fish commercially for Gulf reef fish and vessels with logbook-reported landings of Gulf reef fish (RF)

Year	Vessels with valid RF permits, as previously published by GMFMC (1)	Vessels with valid RF permits, as estimated for this analyis (2)	Vessels with valid RF permits & logbook-reported landings of RF (2)			Vessels with logbook-reported landings of RF, regardless of permit status		
			Vessels	Median pounds of RF per vessel per year	Total pounds of RF landed per year	Vessels	Median pounds of RF per vessel per year	Total pounds of RF landed per year
	1	2	3	4	5	6	7	8
1990	1,622	1,596						
1991	1,762	1,722						
1992	2,214	2,127						
1993	1,731	1,718	1,046	4,979	15,353	1,347	3,528	17,556
1994	1,592	1,595	1,077	5,455	16,465	1,386	4,060	18,048
1995	1,504	1,391	930	5,543	14,327	1,303	3,702	17,079
1996	1,440	1,479	912	5,346	15,904	1,143	3,724	16,769
1997	1,389	1,402	902	6,094	17,337	1,164	3,727	18,616
1998	1,307	1,341	882	6,417	16,950	1,136	3,996	18,079
1999	1,204	1,265	868	7,335	18,768	1,114	5,032	20,201
2000		1,218	901	7,927	18,954	1,134	5,288	20,121
2001		1,203	883	8,191	19,150	1,067	5,432	20,477
2002		1,181	871	8,342	19,948	1,057	5,610	21,155
2003		1,161	809	7,611	17,349	999	5,698	19,244
2004		1,129						
Sum					190,506			207,345
Average (1990-2004)		1,435						
Average (1993-2003)		1,359	916		17,319	1,168		18,850

(1) GMFMC, 1994, Amendment 9, RF FMP, p. 20 (time of year unspecified, data for 1990-1992). GMFMC, 1999, Amendment 17, RF FMP, p. 13, Table 1 (vessels with valid Gulf reef fish permits, December 31, 1993-1998 and March 25, 1999). Also, see GMFMC, 1991, Amendment 4, RF FMP, p. 46, Table 4 (number of permits for 1990, 1,622; 1991, an estimated 1,800; 1992, a projected 2,165). Reef fish permits were first issued in April 1990 (GMFMC, 1991, Amendment 4, RF FMP, p. 46, Table 4).

(2) Vessels with valid Gulf reef fish permits, February 1, 1996-2004, and for other parts of the year in 1990-1995. The computerized data files for vessels with valid federal fishing permits on February 1, 1996-2004 used here were obtained from the NOAA Fisheries Southeast Regional Office, Fisheries Permits Team, St. Petersburg. Files obtained in 1992-95 from the same source were used for 1990-1995, and they were provided by Jim Waters, NOAA Fisheries, Beaufort, NC.

Table 4.--Estimate numbers of vessels with permits for and landings of Gulf reef fish							
Year	Vessels with Gulf reef fish permits			Vessels with Gulf reef fish permits & logbook-reported landings of Gulf Reef Fish			%: vessels landed / vessels permitted
	Vessels	Change	Change, %	Vessels	Change	Change, %	
1990	1596						
1991	1722	126	7.9%				
1992	2127	405	23.5%				
1993	1718	-409	-19.2%	1046			61%
1994	1595	-123	-7.2%	1077	31	3.0%	68%
1995	1391	-204	-12.8%	930	-147	-13.6%	67%
1996	1479	88	6.3%	912	-18	-1.9%	62%
1997	1402	-77	-5.2%	902	-10	-1.1%	64%
1998	1341	-61	-4.4%	882	-20	-2.2%	66%
1999	1265	-76	-5.7%	868	-14	-1.6%	69%
2000	1218	-47	-3.7%	901	33	3.8%	74%
2001	1203	-15	-1.2%	883	-18	-2.0%	73%
2002	1181	-22	-1.8%	871	-12	-1.4%	74%
2003	1161	-20	-1.7%	809	-62	-7.1%	70%
2004	1129	-32	-2.8%				
Averages from preceding							
1996-2003	1281.25	-45	-3.38%	878.50	-14.71	-1.65%	
2001-2004		-22	-1.88%				

Table 5.–NMFS southeast coastal fisheries logbook-reported and other data for vessels with valid federal permits for commercial fishing for Gulf reef fish (RF) (1)

Year	Annual totals, vessels with valid RF permits & RF landings					Per-vessel medians (50th percentiles), vessels with valid RF permits and RF landings						
	Vessels	RF, thousand pounds landed	Trips, all fish	Days away from port, all fish	Gross revenue, all fish, thousand 2001 $	RF, pounds landed per year	Gross rev., all fish, 2001 $ per year	% gross rev. from RF	Engine horse-power	Trips per year, landed RF	Trips per year, all fish	Days away from port per year, all fish
1993	1,046	15,353	15,178	53,709	$32,815	4,979	$12,380	96%	165	10	11	33
1994	1,077	16,465	15,554	58,598	$36,345	5,455	$13,823	95%	200	10	12	35
1995	930	14,327	13,005	48,447	$30,919	5,543	$13,550	96%	210	9	11	32
1996	912	15,904	14,127	52,232	$34,220	5,346	$14,586	95%	210	10	13	36
1997	902	17,337	13,881	50,824	$36,664	6,094	$15,679	96%	225	10	13	36
1998	882	16,950	14,319	49,962	$40,370	6,417	$16,857	96%	240	11	13	38
1999	868	18,768	15,681	54,095	$43,077	7,335	$20,443	96%	250	12	15	44
2000	901	18,954	15,690	54,006	$43,898	7,927	$20,949	98%	253	12	14	37
2001	883	19,150	15,443	52,330	$43,820	8,191	$22,200	98%	280	12	14	41
2002	871	19,948	15,545	51,773	$44,676	8,342	$22,548	98%	275	12	14	44
2003	809	17,349	13,958	46,897	$39,031	7,611	$19,909	98%	300	11	13	41
Sum (2)		190,506	162,371	572,873	$425,834							
Avg	916	17,319	14,762	52,079	$38,712							

(1) The numbers of vessels are for vessels that had valid federal permits for commercial fishing for Gulf reef fish on February 1of each year during 1996-2003, and for other parts of each year during 1993-1995. Landings, revenue, 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.

(2) The 11-year total for estimated gross revenue for all fish, $425,834 million in 2001 dollars, includes $378,088 million for Gulf reef fish as shown in Table 5.

Table 6.–NMFS southeast coastal fisheries logbook-reported and other data for trips by vessels with valid federal permits for commercial fishing for Gulf reef fish (RF) (1)

Year	Vessels with valid RF permits & RF landings	Annual totals, trips with RF landings by vessels with valid RF permits					Per-trip medians (50th percentiles), trips with RF landings by vessels with valid RF permits		
		Trips, RF	Days away from port, RF	RF, thousand pounds landed	Gross revenue, RF, thousand 2001 $	Gross revenue, all fish, thousand 2001 $	RF, pounds landed	Gross rev., RF, 2001 $	Gross rev., all fish, 2001 $
1993	1,046	12,967	49,303	15,353	$28,217	$30,635	499	$903	$1,153
1994	1,077	13,350	53,994	16,465	$31,805	$34,300	596	$1,144	$1,402
1995	930	10,984	44,145	14,327	$26,723	$28,984	732	$1,355	$1,646
1996	912	11,654	46,226	15,904	$30,278	$32,116	889	$1,690	$1,935
1997	902	11,898	46,841	17,337	$32,819	$34,814	956	$1,834	$2,089
1998	882	12,032	45,155	16,950	$35,672	$37,459	862	$1,816	$2,031
1999	868	13,004	49,160	18,768	$38,398	$40,170	790	$1,634	$1,838
2000	901	13,144	49,230	18,954	$38,914	$40,363	786	$1,630	$1,793
2001	883	13,044	47,705	19,150	$39,093	$40,705	809	$1,655	$1,853
2002	871	13,289	47,958	19,948	$40,445	$42,164	789	$1,600	$1,759
2003	809	11,876	43,709	17,349	$35,723	$37,146	754	$1,543	$1,727
Total (2)		137,242	523,426	190,506	$378,088	$398,857			
Average	916	12,477	47,584	17,319	$34,372	$36,260			

(1) The numbers of vessels are for vessels that had valid federal permits for commercial fishing for Gulf reef fish on February 1of each year during 1996-2003, and for other parts of each year during 1993-1995. 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 Gulf reef fish. The estimated dollar values were obtained as explained in footnote 1, Table 4.

(2) The 11-year total for estimated gross revenue for all fish, $398.857 million in 2001 dollars, is for all fish on trips with Gulf reef fish landings and includes $378.088 million for Gulf reef fish. The 11-year total for estimated gross revenue for all fish in Table 4, $425.834 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 Gulf reef fish landings.

Table 7.–Estimate numbers of vessels with permits for and landings of Gulf reef fish

Year	Vessels with Gulf reef fish permits			Vessels with Gulf reef fish permits & logbook-reported landings of Gulf Reef Fish		%: vessels landed / vessels permitted
	Actual	Estimated @ rate of decline of:		Actual	Estimated @ 1.151% rate of decline (2)	
		3.4% (1)	2.0%			
	1	2	3	4	5	6
1990	1596	1,788			988	
1991	1722	1,727			976	
1992	2127	1,668			965	
1993	1718	1,611		1046	954	61%
1994	1595	1,556		1077	943	68%
1995	1391	1,503		930	932	67%
1996	1479	1,452		912	921	62%
1997	1402	1,402		902	911	64%
1998	1341	1,355		882	900	66%
1999	1265	1,308		868	890	69%
2000	1218	1,264		901	880	74%
2001	1203	1,221		883	869	73%
2002	1181	1,179		871	859	74%
2003	1161	1,139		809	849	70%
2004	1129	1,100	1129		840	74%
2005		1,062	1106		830	75%
2006		1,026	1084		820	76%
2007		991	1063		811	76%
2008		957	1041		802	77%
2009		925	1021		792	78%
2010		893	1000		783	78%
2011		863	980		774	79%
2012		833	961		765	80%
2013		805	941		757	80%
2014		777	922		748	81%
2015		751	904		739	82%

(1) While the number of observations is small statistically, and the results do not offer any economic explanation for the decline, a semi-logarithmic ordinary least squares regression equation was specified and estimated using 8 observations from column 1, where year = 1996 ... 2003; R-square = 0.94, and adjusted R-square = 0.93. The result is an estimated annual rate of decline of 3.4% for all years, and it was used to compute the estimated number of vessels with permits for each year during 1990-2015, as shown in this table, column 2.

(Log, number of permitted vessels) = 76.56188 - 0.03471 * year.
t = 10.86 t = -9.84

(2) While the number of observations is small statistically, and the results do not offer any economic explanation for the decline, a semi-logarithmic ordinary least squares regression equation was specified and estimated using 8 observations from column 4, where year = 1996 ... 2003; R-square = 0.58, and adjusted R-square = 0.50. The result is an estimated annual rate of decline of 1.151% for all years, and it was used to compute the estimated number of vessels with permits for each year during 1990-2015, as shown in this table, column 5.

(Log, number of permitted vessels) = 29.93938 - 0.01158 * year.
t = 3.69 t = -2.85

Table 8.–Vessels with valid permits for commercial fishing for Gulf reef fish and NMFS southeast coastal fisheries logbook-reported landings of Gulf reef fish (KM), 1998-2003 (1)

Number years with the specified landings of RF	Number of vessels that landed 1 pound or more of RF per year for the number years in column 1		Number of vessels that landed 100 pounds or more of RF per year for the number years in column 1		Number of vessels that landed 500 pounds or more of RF per year for the number years in column 1		Number of vessels that landed 1000 pounds or more of RF per year for the number years in column 1		Number of vessels that landed 5000 pounds or more of RF per year for the number years in column 1	
		Cumula-tive		Cumula-tive		Cumula-tive		Cumula-tive		Cumula-tive
6 years	436	436	410	410	370	370	341	341	250	250
5 years	126	562	127	537	117	487	105	446	73	323
4 years	109	671	109	646	98	585	96	542	64	387
3 years	93	764	98	744	95	680	89	631	70	457
2 years	109	873	117	861	120	800	116	747	76	533
1 year	139	1012	132	993	139	939	137	884	126	659

(1) The vessels counted in the table are among the 1,155 vessels with valid permits (1,136 active permits and 19 inactive permits) for commercial fishing for Gulf reef fish as of 6 February 2004, only 1,012 of which had landings of one pound or more of Gulf reef fish in at least 1 of the 6 years 1998-2003. The data set contains 1,576 vessels, exclusive of duplication. Based on the most recent administrative entry for each vessel, 111 of the 1,576 vessels had retired permits, 253 had transferred permits, and 6 had renewed permits. Among the 1,155 vessels with valid permits, 902 vessels had originally issued permits, and 253 vessels had transferred permits.

Table 9. Summary of habitat utilization by life history stage for species in the Reef Fish FMP. This is a modified version of Table 3.2.7 in the final draft of the EIS from the Council's EFH generic amendment (GMFMC, 2004a).

Common name	Scientific name	Eggs	Larvae	Post-larvae	Early Juveniles	Late juveniles	Adults	Spawning adults
Gray triggerfish	*Balistes capriscus*	Reefs	Drift algae	Drift algae	Drift algae, Mangroves	Drift algae, Mangroves,	Reefs, Sand/ shell	Reefs, Sand/ shell bottoms
Blueline tilefish	*Caulolatilus microps*	Pelagic	Pelagic				Hard bottoms, Sand/ shell bottoms,	
Dwarf sand perch	*Diplectrum bivittatum*					Hard bottoms	Hard bottoms,	
Sand perch	*Diplectrum formosum*						Reefs, SAV, Shoals/	
Rock hind	*Epinephelus adscensionis*	Pelagic	Pelagic				Hard bottoms,	Hard bottoms, Reefs
Speckled hind	*Epinephelus drummondhayi*	Pelagic	Pelagic				Hard bottoms,	Shelf edge/slope
Yellowedge grouper	*Epinephelus flavolimbatus*	Pelagic	Pelagic			Hard bottoms	Hard bottoms	
Red hind	*Epinephelus guttatus*	Pelagic	Pelagic		Reefs	Reefs	Hard bottoms,	Hard bottoms
Marbled grouper	*Epinephelus inermis*						Reefs	
Goliath grouper	*Epinephelus itajara*	Pelagic	Pelagic	Man-groves	Mangroves, Reefs, SAV	Hard bottoms, Mangroves,	Hard bottoms, Shoa ls/	Reefs, Hard bottoms
Red grouper	*Epinephelus morio*	Pelagic	Pelagic		Hard bottoms,	Hard bottoms,	Hard bottoms,	
Misty grouper	*Epinephelus mystacinus*	Pelagic	Pelagic				Hard bottoms,	Hard bottoms
Warsaw grouper	*Epinephelus nigritus*	Pelagic	Pelagic			Reefs	Hard bottoms,She lf	
Snowy grouper	*Epinephelus niveatus*	Pelagic	Pelagic		Reefs	Reefs	Hard bottoms, Reefs, Shelf	
Nassau grouper	*Epinephelus striatus*		Pelagic		Reefs, SAV		Hard bottoms,	Hard bottoms, Reefs, Sand/
	Etelis oculatus	Pelagic	Pelagic				Hard bottoms	
Hogfish	*Lachnolaimus maximus*				SAV	SAV	Hard bottoms,	Reefs

Common name	Scientific name	Eggs	Larvae	Post-larvae	Early Juveniles	Late juveniles	Adults	Spawning adults
Tilefish	*Lopholatilus chamaeleonticeps*	Pelagic, Shelf edge/ slope	Pelagic		Hard bottoms, Shelf edge/slope, Soft bottoms	Hard bottoms, Shelf edge/slope, Soft bottoms	Hard bottoms, Shelf edge/slope, Soft bottoms	
Mutton snapper	*Lutjanus analis*	Reefs	Reefs	Reefs	Mangroves, Reefs, SAV, Emergent marshes	Mangroves, Reefs, SAV, Emergent marshes	Reefs, SAV	Shoals/ Banks, Shelf edge/slope
Schoolmaster	*Lutjanus apodus*	Pelagic	Pelagic		Mangroves, SAV	Hard bottoms, Mangroves, Reefs, SAV, Emergent marshes	Hard bottoms, Reefs, SAV	Reefs
Blackfin snapper	*Lutjanus buccanella*	Pelagic			Hard bottoms	Hard bottoms	Hard bottoms, Shelf edge/slope	Hard bottoms, Shelf edge/slope
Red snapper	*Lutjanus campechanus*	Pelagic	Pelagic		Hard bottoms, Sand/ shell bottoms, Soft bottoms	Hard bottoms, Sand/ shell bottoms, Soft bottoms	Hard bottoms, Reefs	Sand/ shell bottoms
Cubera snapper	*Lutjanus cyanopterus*	Pelagic			Mangroves, Emergent marshes, SAV	Mangroves, Emergent marshes, SAV	Mangroves, Reefs	Reefs
Gray snapper	*Lutjanus griseus*	Pelagic, Reefs	Pelagic, Reefs	SAV	Mangroves, Emergent marshes, Seagrasses	Mangroves, Emergent marshes, SAV	Emergent marshes, Hard bottoms, Reefs, Sand/ shell	
Dog snapper	*Lutjanus jocu*	Pelagic	Pelagic		SAV	Mangroves, SAV	Reefs, SAV	Reefs
Mahogany snapper	*Lutjanus mahogoni*	Pelagic	Pelagic		Reefs, Sand/ shell	Reefs, Sand/ shell	Hard bottoms,	
Lane snapper	*Lutjanus synagris*	Pelagic		Reefs, SAV	Mangroves, Reefs, Sand/ shell bottoms, SAV, Soft bottoms	Mangroves, Reefs, Sand/ shell bottoms, SAV, Soft bottoms	Reefs, Sand/ shell bottoms, Shoals/ Banks	Shelf edge/slope

Common name	Scientific name	Eggs	Larvae	Post-larvae	Early Juveniles	Late juveniles	Adults	Spawning adults
Silk snapper	*Lutjanus vivanus*						Shelf edge	
Black grouper	*Mycteroperca bonaci*	Pelagic	Pelagic		SAV	Hard bottoms, Reefs	Hard bottoms, Mangroves, Reefs	
Yellowmouth grouper	*Mycteroperca interstitialis*	Pelagic	Pelagic		Mangroves	Mangroves, Reefs	Hard bottoms,	
Gag	*Mycteroperca microlepis*	Pelagic	Pelagic		SAV	Hard bottoms, Reefs, SAV	Hard bottoms, Reefs	
Scamp	*Mycteroperca phenax*	Pelagic	Pelagic		Hard bottoms, Mangroves, Reefs	Hard bottoms, Mangroves, Reefs	Hard bottoms, Reefs	Reefs, Shelf edge/slope
Yellowfin grouper	*Mycteroperca venenosa*				SAV	Hard bottoms, SAV	Hard bottoms, Reefs	Hard bottoms
Yellowtail snapper	*Ocyurus chrysurus*	Pelagic			Mangroves, SAV, Soft bottoms	Reefs	Hard bottoms, Reefs, Shoals/ Banks	
Wenchman	*Pristipomoides aquilonaris*	Pelagic	Pelagic				Hard bottoms, Shelf edge/slope	Shelf edge/slope
Vermilion snapper	*Rhomboplites aurorubens*	Pelagic			Hard bottoms, Reefs	Hard bottoms, Reefs	Hard bottoms, Reefs	
Greater amberjack	*Seriola dumerili*	Pelagic	Pelagic	Pelagic	Drift algae	Drift algae	Pelagic, Reefs	Pelagic
Lesser amberjack	*Seriola fasciata*				Drift algae	Drift algae	Hard bottoms	Hard bottoms
Almaco jack	*Seriola rivoliana*	Pelagic			Drift algae	Drift algae	Pelagic	Pelagic
Banded rudderfish	*Seriola zonata*		Pelagic		Drift algae	Drift algae	Pelagic	Pelagic

Table 10. Life history characteristics of federally managed Gulf of Mexico reef fish species.

Species	Maximum length*	Maximum weight**	Maximum age	Age at maturity	Size at maturity
Black	151 cm FL[1]	82 kg[2]	33 years[1]	5.2 years 50% females mature[1]	82.6 cm FL 50% females mature[1]
Gag	121 cm TL[8]	36.5 kg[9]	26 years[8]	4 years 70% females mature[10]	65 cm TL 70% females mature[10]
Red	110 cm TL[2]	23 kg[2]	28 years[8]	5 years 50% females mature[12]	40-50 cm TL 50% females mature[13]
Yellowfin	90 cm TL[2]	19.1 kg[9]	-	-	70-80 cm TL most females mature[7]
Scamp	89 cm TL[16]	13.4 kg[9]	21 years[16]	Most mature 3-5 years[3]	35 cm SL all females mature[3]
Yellowmouth	90 cm TL[2]	6.2 kg[18]	28 years[18]	4 years 100% females mature[18]	45 cm TL 100% females mature[18]
Rock Hind	60 cm TL[19]	-	12 years[20]	-	smallest 252 mm TL[3]
Red Hind	72 cm TL[21]	8.3 kg[21]	22 years[21]	3 years[22]	22 cm FL 50% females mature[23]
Yellowedge	117 cm TL[24]	14 kg[19]	85 years[24]	8 years 50% females mature[25]	56.9 cm TL 50% females mature[26]
Misty	150 cm TL[2]	55 kg[2]	-	-	-
Speckled Hind	110 cm TL[29]	23.8 kg[9]	15 years[29]	-	-
Snowy	118 cm TL[31]	25.4 kg[31]	29 years[32]	5 years 50% females mature[32]	54.1 cm TL 50% females mature[32]
Warsaw	233 cm TL[33]	190 kg[33]	41 years[33]	-	-
Goliath	250 cm TL[19]	320 kg[32]	37 years[35]	All mature > 8 years[35]	All mature > 1350[35]
Nassau	122 cm TL[37]	25 kg[2]	17 years[37]	4-7 years 50% females mature[38]	40-45 cm SL 50% females mature[38]

Species	Reproductive strategy	Aggregations	Age at transition	Size at transition	Spawning season	Spawning peak
Black	protogynous[3]	Yes[4,5,6]	15.6 years 50% males[1]	121 cm FL 50% males[1]	Winter and spring[1,7]	Feb-Mar[1,7]
Gag	protogynous[10]	Yes[11]	11 years 50% males[10]	105 cm TL 50% males[10]	Dec-May[10]	Feb-Mar[10]
Red	protogynous[12]	Harems[14]	13 years 50% males[13]	80-90 cm TL 50% males[13]	Feb-Jun[13]	Mar-May[13]
Yellowfin	protogynous[7]	Yes[14]	-	most males>85 cm TL[9]	Winter and spring[9]	Apr-May[9]
Scamp	protogynous[16]	Yes[17]	-	-	Mar-May[3]	-
Yellowmouth	protogynous[18]	-	10 years 64% males[18]	60-65 cm TL 50% males[18]	Year-round[18]	Apr-May[18]
Rock Hind	protogynous[3]	Suspected[14]		28 cm TL smallest[3]	Jan-Jun[3]	-
Red Hind	protogynous[21]	Yes[21]	-	30 cm SL 50% males[22]	Dec-Feb[23]	Dec-Feb[23]
Yellowedge	protogynous[26]	Suspected[27]	23 years 50% males[25]	81.7 cm TL 50% male[26]	Jan-Oct[26]	May-Sep[26]
Misty	-	-	-	-	Summer and Fall[28]	-
Speckled Hind	-	Suspected[30]	-	-	Summer[3]	-
Snowy	protogynous[32]	Suspected[30]	-	-	Apr-Sep[32]	-
Warsaw	-	Suspected[30]	-	-	Summer[3]	-
Goliath	no[35]	Yes[36]	-	-	Jun-Dec[35]	Jul-Sep[35]
Nassau	unknown[36]	Yes[5, 36]	4-7 years 50% males[38]	40-45 cm SL 50% males[38]	Dec-Feb[39]	-

Table 10 (con't)

Species	Maximum length*	Maximum weight**	Maximum age	Female age at maturity	Female size at maturity
Red	100 cm TL[9]	22.8 kg[9]	57 years[40]	85-90% mature by age 2[41]	75% mature by 30cm FL eastern Gulf, 75% mature by 35 cm FL western Gulf[41]
Vermilion	61 cm TL[43]	3.26 kg[9]	21 years[42]	80% mature by age 1[43]	90% mature by 20 cm TL[43]
Lane	60 cm TL[9]	3.53 kg[9]	19 years[43]	-	18 cm FL[45]
Gray	89 cm TL[47]	7.71 kg[9]	24 years[48]	-	23 cm FL[50]
Mutton	88 cm TL[51]	13.72 kg[9]	29 years[51]	-	-
Yellowtail	86.3 cm TL[53]	4.62 kg[9]	17 years[54]	50% mature by age 1.7 years[55]	50% mature by 20.9 cm TL[55]
Schoolmaster	67.2 cm TL[53]	6.02 kg[9]	-	-	Mean size of maturity 25 cm FL[45]
Cubera	160 cm TL[53]	55.11 kg[9]	-	-	-
Dog	109 cm TL[57]	10.90 kg[9]	-	-	Smallest mature observed 32.3 cm FL[45]
Mahogany	38 cm TL[2]	1.4 kg[2]	-	-	-
Queen	100 cm TL[58]	5.3 kg[58]	-	-	-
Blackfin	75 cm TL[2]	14.0 kg[2]	-	-	Reach maturity at 20 cm FL[60]
Silk	83 cm TL[58]	8.3 kg[58]	-	-	Reach maturity at 50 cm FL[60]
Wenchman	30 cm TL[2]	1.99 kg[9]	-	-	-

Species	Reproductive strategy	Aggregations	Male age at maturity	Male size at maturity	Spawning season	Spawning peak
Red	gonochoristic[41]	Possible[14]		-	Apr-Oct[41]	Jun-Aug[41]
Vermilion	gonochoristic[43]	Unknown	100% mature by age 1[43]	100% mature by 20 cm TL[43]	May-Sep[43]	-
Lane	gonochoristic[46]	Yes[47]	-	-	May-Sep[43]	Jun-Aug[43]
Gray	gonochoristic[46]	Possible[14]	-	-	Summer-fall[50]	-
Mutton	gonochoristic[46]	Yes[53]	-	-	-	May-June[52]
Yellowtail	gonochoristic[46]	Yes[57]	-	-	Spring-summer[56]	May-July[56]
Schoolmaster	gonochoristic[46]	Unknown	-	Mean size of maturity 25 cm FL[45]	Feb-Jun, Aug-Nov[45]	-
Cubera	gonochoristic[46]	Yes[14]	-	-	-	-
Dog	gonochoristic[46]	Possible[4,14]	-	-	Feb-Mar[45]	-
Mahogany	gonochoristic[46]	Unknown	-	-	-	-
Queen	gonochoristic[59]	Unknown	-	-	Year round[60]	Spring and fall[60]
Blackfin	gonochoristic[46]	Unknown	-	Reach maturity at 38 cm FL[60]	Year round[45,60,61]	Spring and fall[45,60]
Silk	gonochoristic[46]	Unknown	-	Reach maturity at 38 cm FL[60]	Year round[60]	Spring and fall[45,60]
Wenchman	gonochoristic[46]	Unknown	-	-	-	-

Table 10 (con't)

Species	Maximum length*	Maximum weight**	Maximum age	Age at maturity	Size at maturity
Hogfish	90.5 cm TL[62]	9.9 kg[62]	23 years[62]	50% mature by age 6.5 years[63]	Size at first maturity 16.6 cm FL[63]
Gray triggerfish	72.5 cm FL[66]	6.15 kg[9]	14 years[66]	87.5% mature by age 1 years[66]	90% mature by 25 cm FL[66]
Greater amberjack	197 cm FL[67]	70.64 kg[9]	15 years[68]	-	-
Lesser amberjack	67.5 cm TL	4.6 kg[70]	-	-	-
Almaco jack	80 cm TL[2]	35.38 kg[9]	-	-	-
Tilefish	125 cm TL[70]	-	35 years[71]	Mature at 8-9 years[72]	Mature at 60-65 cm FL[72]
Anchor tilefish	60 cm TL[2]	-	-	-	-
Blackline tilefish	60 cm TL[2]	11 kg[70]	-	-	-
Blueline tilefish	77 cm TL[70]	7 kg[70]	15 years[73]	-	-
Goldface tilefish	60 cm TL[2]	-	-	-	-

Species	Reproductive strategy	Aggregations	Age at male maturity/ sexual transition	Size at male maturity/ sexual transition	Spawning season	Spawning peak
Hogfish	protogynous[64]	Harems[65]	10 years 50% males[64]	-	Sep-Apr[64]	Feb-Mar[64]
Gray triggerfish	gonochoristic[66]	Unknown	100% mature by age 1 year[66]	Males mature > 11 cm FL[66]	Jun-Sep[66]	-
Greater amberjack	-	-	-	-	-	-
Lesser amberjack	-	-	-	-	-	-
Almaco jack	-	-	-	-	-	-
Tilefish	gonochoristic[72]	Unknown	Mature at 7-8 years[72]	Mature at 65-70 cm FL[72]	Mar-Nov[72]	May-Aug[72]
Anchor tilefish	-	-	-	-	-	-
Blackline tilefish	-	-	-	-	-	-
Blueline tilefish	-	-	-	-	-	-
Goldface tilefish	-	-	-	-	-	-

*To convert centimeters (cm) to inches, divide the cm length by 2.54; TL is total length, FL is fork length, and SL is standard length.
**To convert kilograms (kg) to pounds, multiply the weight by 2.204

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[72] Grimes, C.B., C.F. Idelberger, K.W. Able, and S.C. Turner. 1988. The reproductive biology of tilefish, *Lopholatilus chamaeleonticeps* Goode & Bean, from the United States Mid-Atlantic Bight, and the effects of fishing on the breeding system. Fish. Bull. 86(4):745-762.

[73] Ross, J.L. and G.R. Hunstman, 1982. Age, growth, and mortality of blueline tilefish from North Carolina and South Carolina.. Trans. Am. Fish. Soc. 111:585-592.

Table 11. Stock status of 10 managed reef fish species from federal waters of the Gulf of Mexico that have had stock assessments.

Species	Stock status: Overfished	Overfishing	Rebuilding plan	Rebuilt by	F/F_{MSY}*	B/B_{MSY}*	Last stock assessment
Red snapper[1]	Yes	Yes	Yes	2032	2.82	0.059	Schirripa and Legault (1999)
Vermilion snapper[2]	Yes	Yes	No	2013	1.99	0.32	Porch and Cass-Calay (2001)
Yellowtail snapper	No	No	No	na	0.50-0.70	1.2-1.8	Muller et al. (2003)
Red grouper[3]	No	Yes	Yes	2012	0.87-1.03	0.84-0.99	NOAA Fisheries (2002)
Gag	No	No	No	na	0.51-0.989	1.201-2.148	Turner et al. (2000)
Yellowedge grouper[4]	Unknown	Unknown	No	na	Unknown	Unknown	Cass-Calay and Bahnick (2002)
Goliath grouper[5]	Yes	No	No	na	Near zero	0.72-0.85	Porch et al. (2003)
Greater amberjack[6]	Yes	No	Yes	2009	0.86-3.51	0.10-0.49	Turner et al. (2000)
Gray triggerfish	Unknown	Unknown	No	na	Unknown	Unknown	Valle et al. (2001)
Hogfish	Unknown	Unknown	No	na	Unknown	Unknown	Ault et al. (2003)

*Reflect stock status as of last year of data used in the assessment. Does not take into account consequent stock rebuilding through 2004.

Comments

[1]A revised rebuilding plan is currently proposed in Amendment 22 to the Reef Fish FMP

[2]A rebuilding plan is currently proposed in Amendment 23 to the Reef Fish FMP

[3]A rebuilding plan was implemented in Secretarial Amendment 1 to the Reef Fish FMP.

the rebuilding plan requires the stock be rebuilt to Bmsy.

The stock has rebuilt above MSST and is not considered overfished; however,

[4]A deep-water grouper quota was implemented in Secretarial Amendment 1 to the Reef Fish FMP

[5]A rebuilding plan for goliath grouper is being developed in Amendment 18 to the Reef Fish FMP

[6]A rebuilding plan was implemented in Secretarial Amendment 2 to the Reef Fish FMP.

Table 12. Landings of reef fish for selected locations by pounds and by ex-vessel value for all fish landed in 2000 and 2003.

Source, NMFS logbook data 2000 and 2003.

Location By County	Pounds Landed in 2000	Total Ex-vessel Value of all fish landed in 2000	Pounds Landed in 2003	Total Ex-vessel Value of all fish landed in 2003
Florida West Coast				
Pinellas	5,180,529	12,424,569	4,888,580	11,822,054
Bay	1,985,697	6,815,089	2,037,300	7,073,437
Monroe	878,868	5,344,390	635,870	3,715,620
Okaloosa	817,611	2,907,244	976,124	2,909,670
Franklin	675,955	3,207,749	751,635	3,139,773
Escambia	655,388	2,879,568	794,111	2,413,983
Citrus	610,890	1,328,128	273,563	694,557
Louisiana				
Lafourche	1,388,263	7,439,798	772,450	5,773,376
Vermilion	1,015,658	5,586,654	628,049	5,195,468
Cameron	910,995	3,461,287	1,150,756	3,354,868
Plaquemines	348,482	1,679,283	380,748	1,342,476
Texas				
Galveston	899,783	2,696,555	1,571,923	4,655,044
Brazoria	255,025	780,741	353,332	1,175,639
Harris	181,340	440,814	114,332	452,089
Matagorda	174,931	410,232	129,925	334,867
Cameron	106,578	1,535,614	510,537	1,739,430

Table 13. Pinellas County, Florida Community Demographics

(Based on U.S. Census Profiles 2000)

Description	Number	Percent
Total Population	921,482	100
Female	482,523	52.4
Male	438,959	49.1
Ethnicity and/or Race		
White	791,111	85.9
Black of African American	82,556	9.0
American Indian and Alaska Native	2,719	0.3
Asian	18,984	2.1
Hispanic or Latino of any race	42,760	4.6
Educational Attainment (Population 25 and over)		
High school graduate (includes equivalency)	576,396	80.4
Bachelor's degree or higher	157,235	22.9
Median Household Income (dollars)	37,111	N/A
Poverty Status (families below the poverty line)	16,509	6.7
Employment Status (population 16 yrs and over)		
Civilian labor force	44,290	58.2
Civilian labor force unemployed	18,941	2.5
Occupation		
Management, professional, and related occupations	145,305	34.2
Service occupations	66,002	15.5
Sales and office occupations	131,977	31.0
Farming, fishing, and forestry occupations	817	0.2
Construction, extraction, and maintenance occupations	34,324	8.1
Production, transportation, and material moving occupations	46,924	11.0
Industry		
Agriculture, forestry, fishing, and hunting	833	0.2
Construction	25,907	6.1
Manufacturing	43,049	10.1
Retail trade	58,918	13.9

Table 14. Bay County, Florida Community Demographics
(Based on U.S. Census Profiles 2000)

Description	Number	Percent
Total Population	148,217	100
Female	74,811	50.5
Male	73,406	49.5
Ethnicity and/or Race		
White	124,761	84.2
Black of African American	15,772	10.6
American Indian and Alaska Native	1,159	0.8
Asian	2,561	1.7
Hispanic or Latino of any race	3,591	2.4
Educational Attainment (Population 25 and over)		
High school graduate (includes equivalency)	80,855	81.0
Bachelor's degree or higher	17,636	17.7
Median Household Income		
Poverty Status (families below the poverty line)	36,092	N/A
Employment Status (population 16 yrs and over)		
Civilian labor force	72,124	61.8
Civilian labor force unemployed	3,360	2.9
Occupation		
Management, professional, and related occupations	18,495	28.5
Service occupations	12,784	19.7
Sales and office occupations	18,212	28.1
Farming, fishing, and forestry occupations	407	0.6
Construction, extraction, and maintenance occupations	7,995	12.3
Production, transportation, and material moving occupations	6,990	10.8
Industry		
Agriculture, forestry, fishing, and hunting	576	0.9
Construction	5,914	9.1
Manufacturing	4,239	6.5
Retail trade	9,424	14.5

Table 15. Madeira Beach, Florida Community Demographics

(Based on U.S. Census Profiles 2000)

Description	Number	Percent
Total Population	4,511	
Female	2,135	
Male	2,376	
Ethnicity and/or Race		
White	4,378	
Black of African American	12	
American Indian and Alaska Native	14	
Asian	26	
Hispanic or Latino of any race	107	
Educational Attainment (Population 25 and over)		
Percentage high school graduate (includes equivalency)		87.3
Percentage with bachelor's degree		22.2
Median Household Income (in dollars)	36,671	
Poverty Status (percent below the poverty line)		9.8
Employment Status (population 16 yrs and over)		
Percent in labor force		61.5
Percent labor force unemployed		4.4
Occupation (percent in workforce)		
Management, professional, and related occupations		30.4
Service occupations		22.1
Sales and office occupations		28.9
Farming, fishing, and forestry occupations		0.7
Construction, extraction, and maintenance occupations		10.6
Production, transportation, and material moving occupations		7.2
Industry (percent in workforce)		
Agriculture, forestry, fishing, and hunting		0.0
Manufacturing		7.0

16.0 FIGURES

Figure 1.--Gulf commercial and recreational landings of red grouper

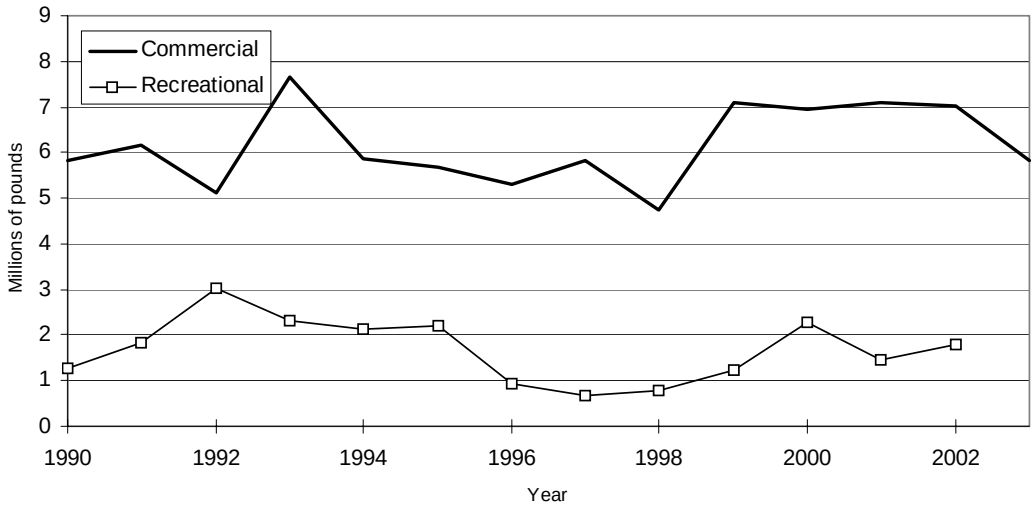


Figure 2.--Gulf commercial and recreational landings of red snapper

Figure 3.--Gulf commercial and recreational landings of gag grouper

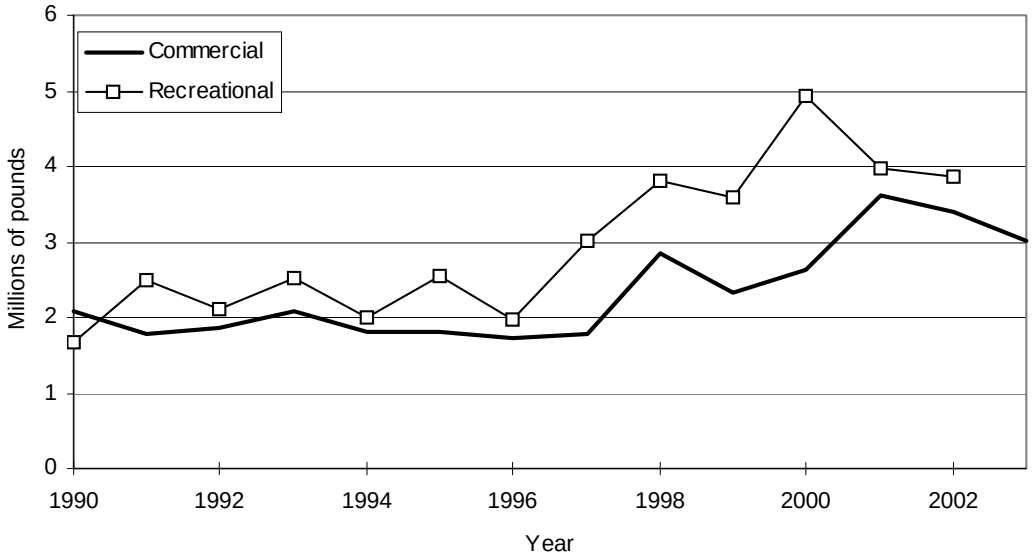


Figure 4.--Gulf commercial and recreational landings of vermilion snapper

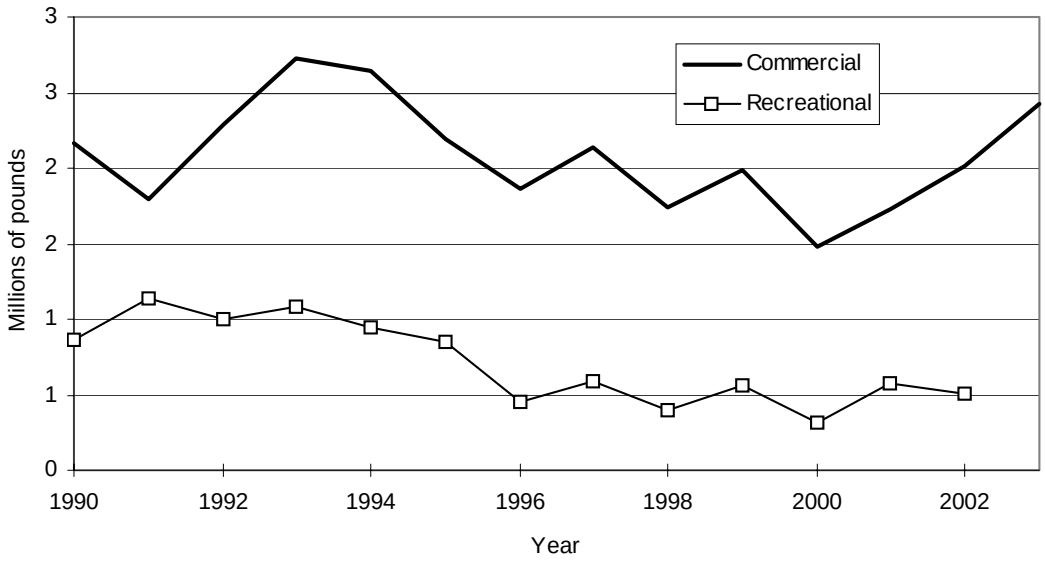


Figure 5.--Gulf commercial and recreational landings of greater amberjack

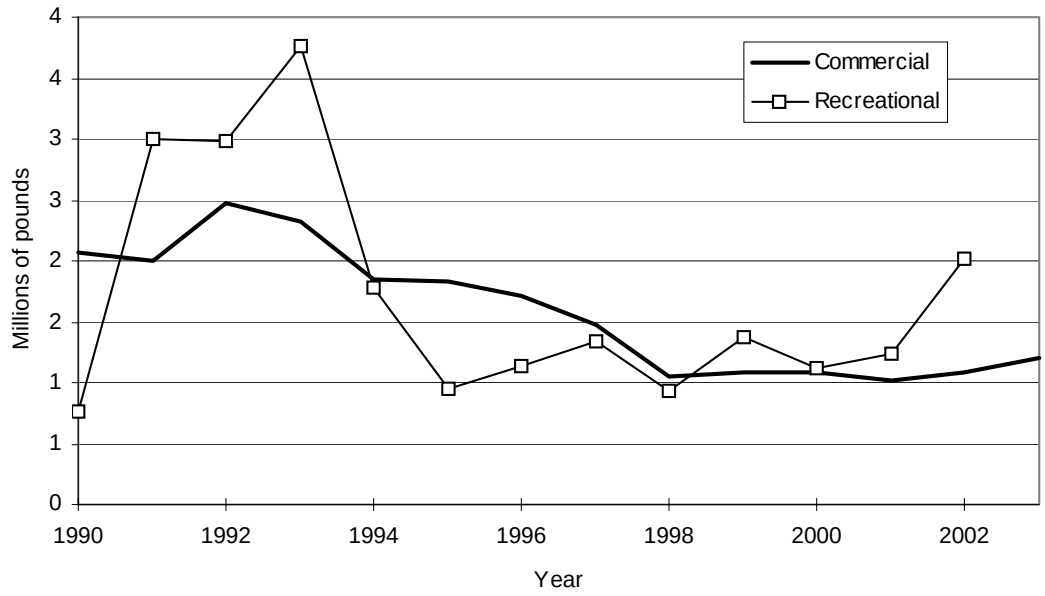
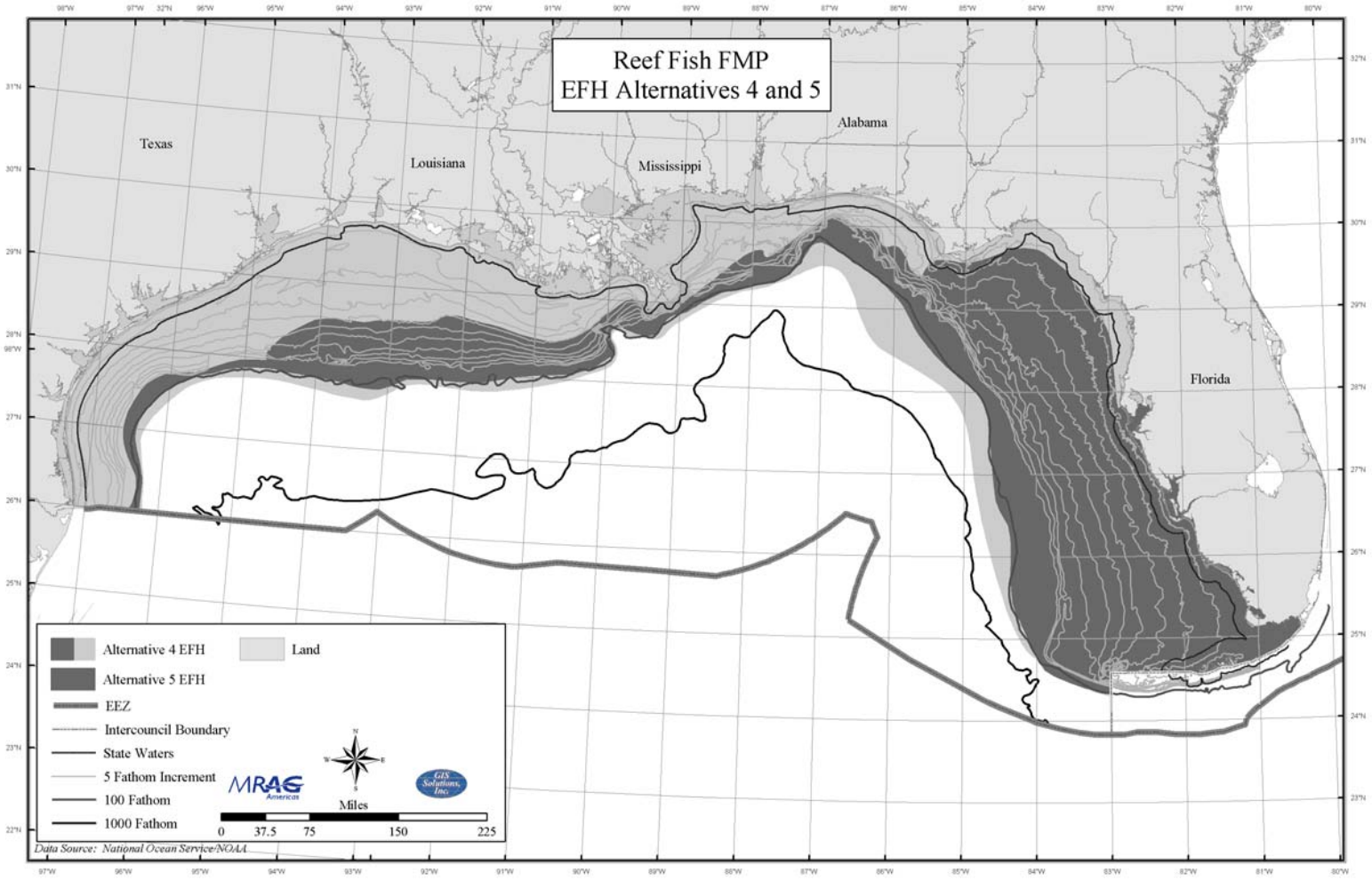


Figure 6. EFH for reef fish in the Gulf of Mexico (from the Draft Environmental Impact Statement for the Generic Essential Fish Habitat Amendment of the GMFMC).



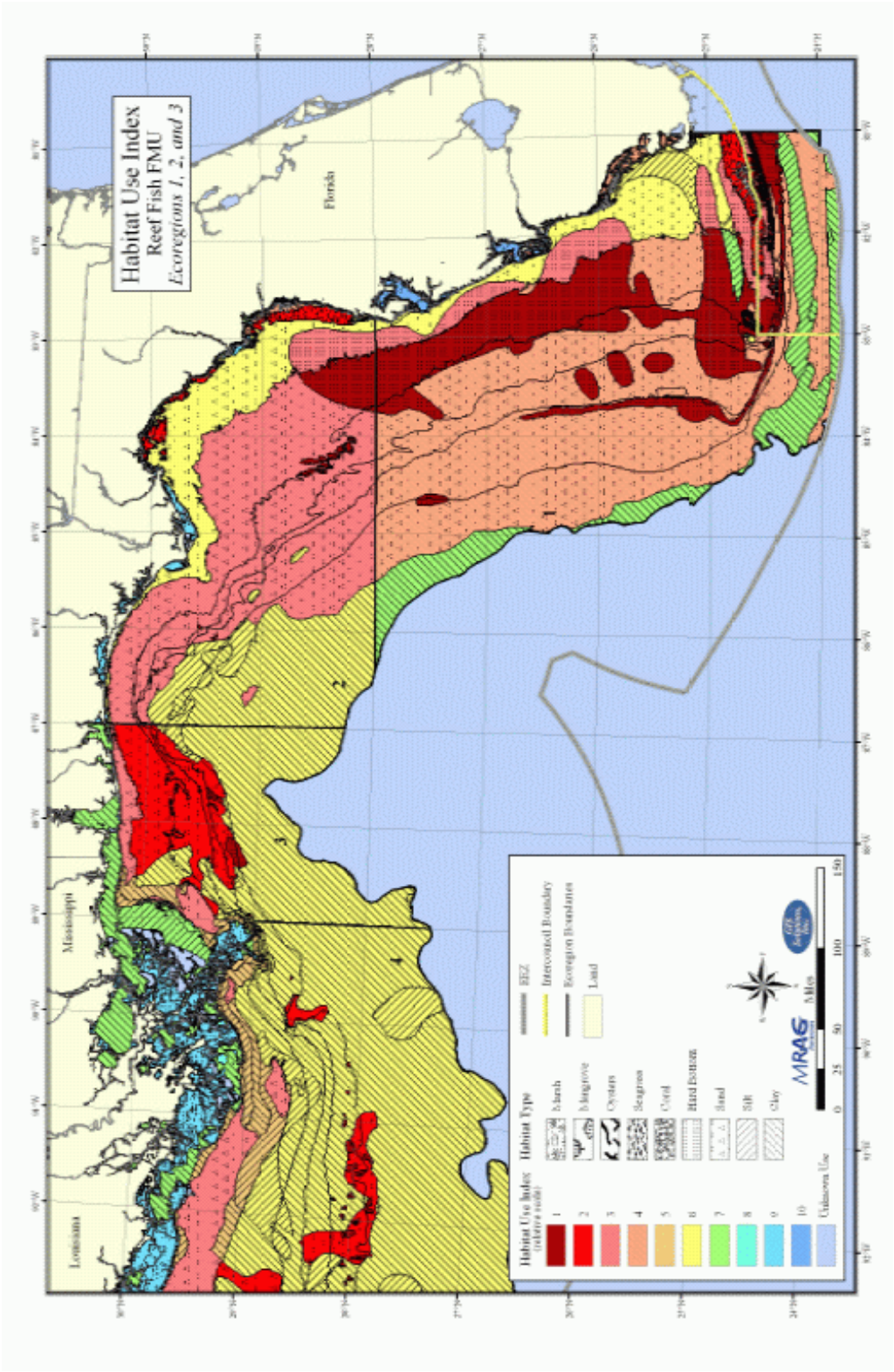


Figure 7. Habitat use by Reef Fish FMP species in the eastern Gulf of Mexico - low index number represent high levels of habitat use (from the Draft Environmental Impact Statement for the Generic Essential Fish Habitat Amendment of the GMFMC).

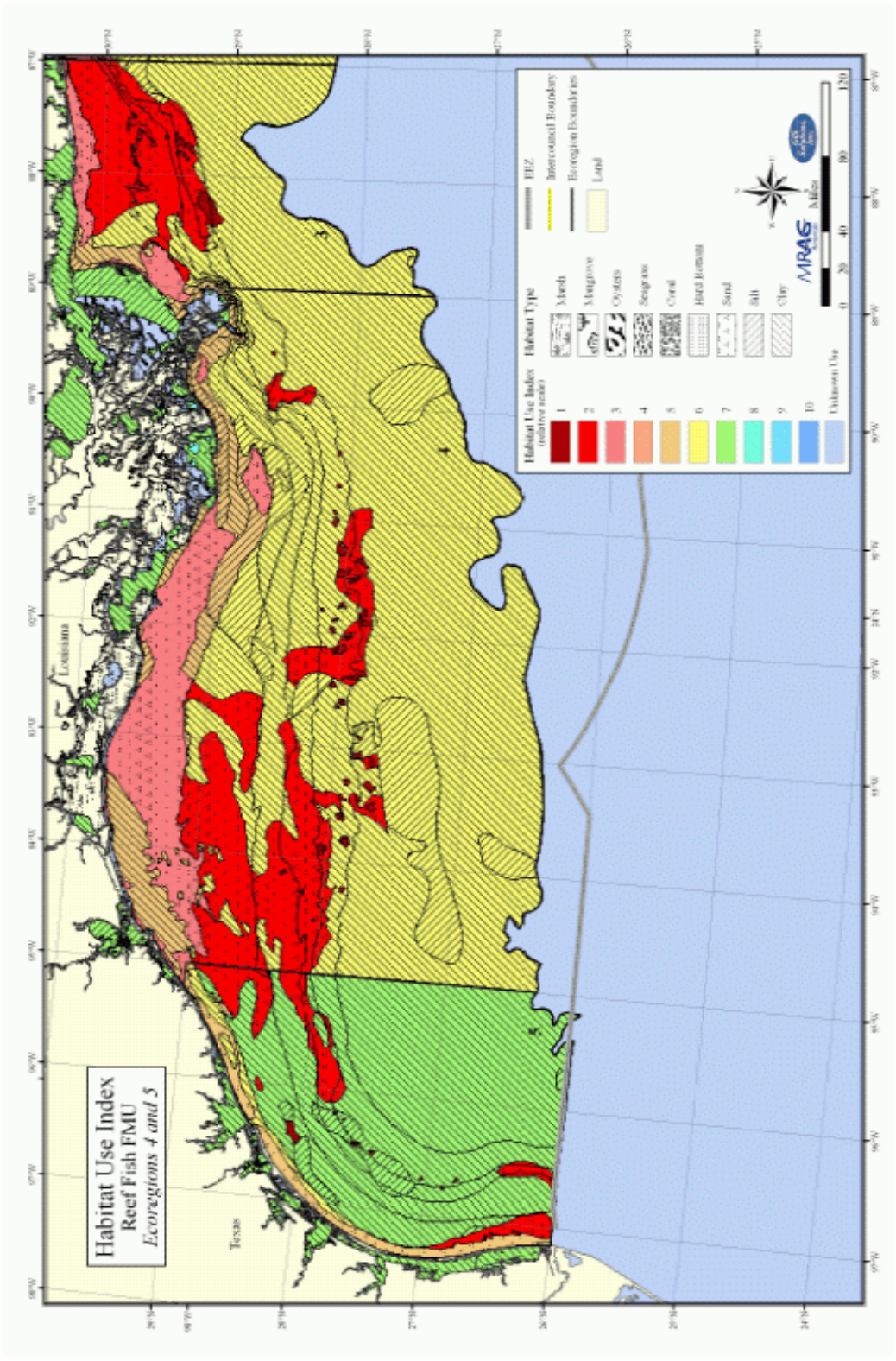


Figure 8. Habitat use by Reef Fish FMP species in the western Gulf of Mexico - low index number represent high levels of habitat use (from the Draft Environmental Impact Statement for the Generic Essential Fish Habitat Amendment of the GMFMC).

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APPENDIX A - SCOPING MEETING COMMENTS

Mobile, Alabama

Attendees: 7 Persons

Council:
Vernon Minton
Wayne Swingle
Kathy Conlon

W. J. Butts . . . . . RNR Inc.
Ed Cake . . . . . BioMarine Technologies, Inc.
. . . . . and Gulf Marine Institute of Technology
Jesse Chappell . . . . . Auburn University
John Ericcson . . . . . Gulf Marine Institute of Technology
Julian Stewart . . . . . Alma Bryant High School
David Underhill . . . . . Sierra Club
Rick Wallace . . . . . Auburn University

Chairman Minton called the meeting to order at 6:00 p.m.

Mr. Swingle presented the Joint Reef Fish Limited Access Amendment.

Mr. Butts noted that he had been providing documentation since 1999 and wondered if the 200# license was going to be eliminated.

Mr. Swingle replied that red snapper fishery would not be affected. He further stated that if the referendum was approved, then Council could proceed with the development of an IFQ program for red snapper and that the Ad Hoc Red Snapper Advisory Panel had recommended that anyone with red snapper landings would be included in the IFQ program.

Mr. Minton noted that the Council historically had taken the advice of the AP panels. He further added that the chosen time frame could change and 1999 would not necessarily remain as the target year and would be identified in the IFQ.

Mr. Butts reiterated his concern that any one holding a license continuously from 1999 until the present would not be excluded from the fishery.

Mr. Minton responded that there was currently no provision that contained that ruling.

Mr. Swingle stated that the reason the Council was implementing the Amendment to allow commercial aquaculture was that the current legal opinion indicated that offshore aquaculture constitutes fishing under the Magnuson-Stevens Act and cannot be done without an authorizing

amendment. He then proceeded with the presentation of the Generic Amendment for Management of Offshore Marine Aquaculture.

At the conclusion of the presentation, **Mr. Swingle** stated that the Council was soliciting recommendations for the document regarding rules for regulating the aquaculture facilities and comments about the document.

Larose, Louisiana

Attendees: 25 Persons:

Council:
Myron Fischer, Chairman
Wayne Swingle
Kathy Conlon

George Arneseh . . . . . Commercial Fishery
Keith J. Barihe, Sr. . . . . Commercial Fishery
Leo Bickham . . . . . Commercial Fishery
James B. Bruce . . . . . Commercial Fishery
David Camardelle . . . . . Mayor of Grand Isle, LA, Commercial Fishery
Noel Camardelle . . . . . Commercial Fishery
Al Cassagne . . . . . Commercial Fishery
Harry J. Cheramie, Sr. . . . . Commercial Fishery
Josie Cheramie . . . . . Grand Isle Tourist Commission, Commercial Fishery
Vincent F. Cottone . . . . . Offshore Operators Committee
Sallie Davis . . . . . Gulf Restoration Network
Connie DuBois . . . . . Commercial Fishery
Euris DuBois . . . . . Commercial Fishery
Michael Frazier . . . . . Commercial Fishery
Logan J. Galliano . . . . . Commercial Fishery
Steve Kolian . . . . . ECO Rigs
Ivy J. Lasseigne, Jr. . . . . Commercial Fishery
Robert J. Pitre, Jr. . . . . Commercial Fishery
Terry M. Pizani . . . . . Commercial Fishery
Terrill Pizani . . . . . Commercial Fishery
Mickey Readenour . . . . . Commercial Fishery
Dr. Paul Sammarco . . . . . Louisiana University Marine Consortium
James R. Scheer . . . . . Commercial Fishery
Stu Scheer . . . . . Commercial Fishery
Jerry Walker . . . . . Commercial Fishery

Chairman Fischer called the meeting to order at 6:00 p.m. and announced that the first presentation would be the Scoping Document for Limited Access in the Commercial Reef Fish and King Mackerel Fisheries with the Scoping Document for Generic Amendment for Offshore Marine Aquaculture following.

Mr. Swingle proceeded with the presentation of the Scoping Document for Limited Access in the Commercial Reef Fish and King Mackerel Fisheries. He announced that the reason for the public hearing was that both the King mackerel and reef fish permit moratoriums were expiring in 2005 and if they were allowed to expire, it would create a large influx of new fishermen into the fisheries.

Ms. Davis stated that Gulf Restoration Network is opposed to the status quo of allowing the moratoriums to expire.

Mr. Walker, a red snapper fisherman, noted that both red snapper and King mackerel are plentiful where he fishes.

Mr. Readenour inquired if there was mandatory reporting of reef fish.

Mr. Swingle that mandatory reporting had been in place since 1992. He added that initially everyone outside of Florida was required to report and Florida was not required to report due to the trip ticket system but since 1993, everyone Gulf-wide has had to report every trip. The mackerel fishery instituted reporting in 1995.

Mr. Readenour further stated that he wants status quo on reef fish and to leave it as it was and to extend the moratorium on King mackerel and that some of the proposed plans would be unfair to the fishermen at Grand Isle. He also inquired about Mackerel Amendment 16.

Mr. Swingle reported that Amendment 16 contains options for changing the allocations between the zones.

Mr. Fischer added that a key issue in Amendment 16 would require the fishermen to declare what zone they were going to fish in prior to the season start, provided the legalities were in place. He also made the clarification that the term "status quo" meant that the moratorium would expire.

Mr. Lasseigne stated that he would like to see the moratorium in place for 5 more years and that he would like to see King mackerel season open November 1. He added that he catches a lot of King mackerel containing eggs.

Mr. Fischer noted that the season doesn't open until summer, which left 8 months to catch fish and would stay open until the quota was met.

Mr. Terry Pizani stated that the fishermen are regulated to death and that July 1 was put in place to help keep the shrimpers out of the fishery and that he would like to keep the earned income at $10,000/25%. He inquired if the new zoning regulations would require a license.

Mr. Fischer stated that he appreciated all of the comments and further stated that the Western Zone was allocated a little more than a million pounds. He added that changing the opening date on the Western Zone only, as that was the stock being fished by this group. He added that Under Amendment 16 the fishermen would need to declare their desired zone.

Mr. David Camardelle stated that he supported the 5-year moratorium and a November 1 opening. He added that as an elected official in Grand Isle, the home of most of the fishermen in attendance, and a commercial fisherman himself, he knew of the many hardships the fishermen were having. He also noted that he would support declaring a fishing zone.

Mr. Cassagne declared that he was in favor of extending the moratorium and opposed to a fishery where you must meet certain criteria to enter. He added that everyone that met the original criteria of holding a permit or license should be included if a fishery was divided.

Mr. Bickman stated that he was in favor of extending the moratorium and to keep the season open longer. He added that he was in favor to keep the earned income at $10,000/25%. He inquired if Amendment 16 provided that the fishermen could pick their desired zone a year in advance.

Mr. Fischer responded that there was not an answer to that question at this time and that due to an influx of boats this past year, the season went from 4 months to 2 months.

Mr. Arneson stated that he did not think the divided classes were fair and that the smaller boats were suffering.

Mr. Ridenour stated that the subzones were a good idea.

Mrs. Chermie noted that she and her husband were in favor of extending the moratorium and the November 1 opening.

Mr. Fischer invited Mr. Stu Scheer to speak on the subject of reef fish.

Mr. Scheer stated that he was in favor of the extended moratorium on reef fish. He also suggested that the government buy out the fishermen's permits, like had been done in other fisheries, which would make the environmentalists, recreational and commercial fishers happy.

Galveston, Texas

ATTENDEES: 8 members of the public attended

Council:
Irby Basco
Rick Leard
Lorna Evans

Linda Butler . . . . . Texas Parks & Wildlife Dept., Dickinson, Texas
Jan Culbertson . . . . . Texas Parks & Wildlife Dept., Dickinson, Texas
Phillip Lee . . . . . University of Texas Medical Branch, Galveston, Texas
Mark Muhich . . . . . Sierra Club, Galveston, Texas
Ralph Rayburn . . . . . Texas SeaGrant Program, College Station, Texas

Chairman Minton called the meeting to order at 6:00 p.m.

Dr. Leard presented the Joint Reef Fish Limited Access Amendment.

No member of the public spoke.

Meeting adjourned at 6:30 p.m.

Panama City, Florida

Attendees: 17 members of the public attended

Council:
Jim Fensom
Wayne Swingle
Lorna Evans

Sharon Hoffman . . . . . Charterboat, Panama City, Florida
Hank Hunt . . . . . Panama City Boatmen's Association, Panama City, Florida
John Law . . . . . Charterboat Captain, Panama City, Florida
Thomas Niquet . . . . . Commercial Fisherman, Lynn Haven, Florida
Bart Niquet . . . . . Niquet Fisheries, Lynn Haven, Florida
James Page . . . . . Charterboat and Commercial Fisherman, Lynn Haven, Florida
Lawrence Pentel . . . . . Commercial Fisherman, Seagrove, Florida
Billy Pitts . . . . . Charterboat Captain, Lynn Haven, Florida
Tom Rice . . . . . Charterboat Captain, Panama City, Florida
Russell Stewart . . . . . Lawyer, Panama City, Florida
Michael Sullivan . . . . . Charterboat Captain, Panama City, Florida

Chairman Minton called the meeting to order at 6:00 p.m. (CST)

Mr. Swingle presented the Joint Reef Fish Limited Access Amendment.

Thomas Niquet. He was opposed to recreational fishermen (charterboats) selling their catch. **Mr. Swingle** explained that the Gulf Council opposed recreational fish being sold but the South Atlantic Council supported this.

Bart Niquet. He was opposed to the changes being made in the fishery. He believed there was less effort and more mackerel. He stated that some of the vessels did not fish their permits because it was not lucrative. He related that the closed areas, such as Madison/Swanson, had cut effort by 50%.

Lawrence Pentel. He stated that the weather was a major factor in which years yielded better landings. He did not want any changes made to the current regulations in the fishery. He was opposed to giving licenses based on classes. He supported an August 1 Gulf season opening. He also supported including his charter income with his commercial income to get his permit. He was opposed to Alternative 2. He stated that endorsements would kill more fish. He supported having an appeals board with only industry members. He was concerned that he had transferred his permit to a new boat 4 years ago and he may possibly not be able to use his landings from the old boat.

Russell Stewart. He supported Alternative 3 on page 4. He was opposed to license class designations. He supported status quo for the recreational qualifying criteria.

Tom Rice. He supported a system that designated fishing zones for fishermen. He also supported counting commercial and charterboat landings, Alternative 3 on page 9. He supported status quo for the qualifying criteria.

Michael Sullivan. He supported receiving a permit since he had his license in 2000. He was opposed to a trip limit that was based on pounds. He was also opposed to zoning for king mackerel. He felt that dormant permits that would not be re-issued was a punishment to the fishermen for not fishing. He supported a system that required fishermen to designate fishing zones they would fish in.

Hank Hunt. Representing the Panama City Boatmen's Association (PCBA). The PCBA will support Alternative 3 on page 4. He asked that the moratorium be extended for 5 years. He stated that only one-half of the number of reef fish permits was currently being fished. He believed the Council was putting management ahead of science but he did not particularly feel that the best science was available.

Jim Page. He supported extending the moratorium for 5 years. He also supported Alternative 3 on page 9. He asked that the Council not cut out the small fisherman.

Bart Niquet. He asked that if a trip limit were implemented that it be 8,000 to 5,500 pounds. He was opposed to adding an amberjack endorsement. He supported Alternative 3 on page 4.

Russell Stewart. He supported Alternative 3 if the moratorium were not extended. He recommended Alternative 1 sub-option 1 (a) and felt the other attendees were asking for the same. He felt this would put everything at status quo without calling it a moratorium.

Michael Sullivan. He agreed with the 8,000 pound trip limit for reef fish.

Meeting adjourned at 6:30 p.m.

Madeira Beach, Florida

ATTENDEES 82 members of the public attended

Council:
Karen Bell
Rick Leard
Lorna Evans

Kevin Bruington . . . . . Commercial Fisherman, St. Petersburg, Florida
Tommy Butler . . . . . Commercial Fisherman, South Pasadena, Florida
Marianne Cufone . . . . . The Ocean Conservancy, St. Petersburg, Florida
Ryan Dean . . . . . Commercial Fisherman, Pinellas Park, Florida
Scott Doggett . . . . . Commercial Fisherman, St. Petersburg, Florida
Martin Fisher . . . . . SOFA, St. Petersburg, Florida
Kenneth Glenn . . . . . SOFA, Largo, Florida
Jack Golden . . . . . SOFA, Madeira Beach, Florida
David Holley . . . . . Commercial Fisherman, Seminole, Florida
Phillip Jozza . . . . . St. Petersburg, Florida
Roger Koske . . . . . SOFA, Madeira Beach, Florida
Ronald Laskey . . . . . Commercial Fisherman, Indian Rocks Beach, Florida
Randy Laurel . . . . . SOFA, Largo, Florida
Ed Maccini . . . . . SOFA, Seminole, Florida
Dennis O'Hern . . . . . Seminole, Florida
Tommy Powell . . . . . Tampa, Florida
Paul Renner . . . . . Commercial Fisherman
Mike Rice . . . . . Commercial Fisherman
Eric Schmidt . . . . . Commercial Fisherman, Ft. Myers, Florida
Bob Spaeth . . . . . SOFA, Madeira Beach, Florida
Sal Versaggi . . . . . Versaggi Shrimp, Tampa, Florida
Scott Webber . . . . . Fishing Rights Alliance, St. Petersburg, Florida

Ms. Bell called the meeting to order at 6:00 p.m.

Dr. Leard presented the Joint Reef Fish Limited Access Amendment.

Mr. Spaeth entered a letter into the record **(Attachment 1)**. He did not feel that the proper care and consideration for creation of the framework for such a system could be accomplished in such a short time. He commented that if the moratorium were extended a deliberate and more inclusive decision of creating an IFQ could be taken. He supported Alternative 1 sub-option 1a continue the existing moratorium indefinitely. He supported an appeals board composed of members associated with the commercial reef fish fishery.

Mr. Webber related that he was representing the interests of fishermen in connection with educating the public as to the need of more manageable fisheries policies. He related that the small time fisherman was being asked to take a disproportionate hit in comparison to the large time commercial fishermen. He added that the small time commercial fishermen were being squeezed out of the industry by the proposed regulations. He pointed out that these small time fishermen had a smaller impact on the fisheries than the longline or large commercial fishermen. He stated that this was a negative impact to the community and he felt it was important that the Council understand that if it pushed out the small time fishermen in favor of the large time fishermen this would concentrate the power of commercial fishing to the few that caused the most harm to the environment.

Mr. Schmidt supported Mr. Spaeth's position. He suggested that the Council establish a single permit license limitation system. He felt there was a problem with latent effort in a number of permits.

Mr. Golden supported Mr. Spaeth's position.

Mr. Maccini supported Mr. Spaeth's position. He felt that some type of trip limit should be implemented. He was opposed to any type of closure.

Mr. Koske supported Mr. Spaeth's position. He also supported trip limits, if necessary, and asked that the appeals board consist of commercial fishermen only.

Mr. Doggett supported Mr. Spaeth's position. He asked that when the quota was 50% to 60% filled that a trip limit be implemented.

Mr. Glenn supported Mr. Spaeth's position.

Mr. Renner believed all the permits should be treated equal and any permit that was not currently being used should be turned in. He wanted the option to switch to another gear type if he needed to.

Mr. Rice agreed that dormant permits should not be re-issued. He felt that the criteria to get a permit should be based on actual catches rather than income. He asked that the Council keep amberjack as part of reef fish when using actual catches. He agreed that if he wanted to switch to another gear type he should be able to. He commented that diving was the most economically feasible method of fishing. His main concern was fishing year-round.

Mr. Fisher felt that the historical fisherman should be protected and an individual should not be punished for having a latent permit. He asked that a minimum of $30,000 to $40,000 be used to determine that the fisherman was not just hobby fishing. He supported trip limits.

Mr. Dean asked that the Council not push the small time fisherman out of business in order to support the "big boys".

Mr. Bruington related that he had received an injury 6 years ago and had been trying to get his landings back up. He asked that the Council consider hardship cases.

Mr. Holley believed that catching fish should be a right and everyone deserved to catch the same number of fish. He asked that the quota not be cut because he could not make any money.

Meeting adjourned at 7:30 p.m.

Key West, Florida

ATTENDEES: 51 PERSONS

Council:
Roy Williams, Chairman
Wayne Swingle
Kathy Conlon

William Arnold . . . . . Commercial Fishery
Peter Bacle. . . . . Stock Island Lobster Co.
Peter Gladding . . . . . Commercial Fishery
Jorge Blanco . . . . . Commercial Fishery
Joseph Gartenmayer . . . . . Commercial Fishery
William Golden . . . . . Commercial Fishery
Robert Grant . . . . . Commercial Fishery
Jesus Hernandez. . . . . Commercial Fishery
Ron Meyers . . . . . Commercial Fishery
Lorenzo Naseiro, Jr. . . . . Commercial Fishery
George Niles . . . . . Monroe County Commercial Fishery
William Niles . . . . . Monroe County Commercial Fishery
Bobby Pillar . . . . . Commercial Fishery
John F. Reed III . . . . . Commercial Fishery
Damon Santelli . . . . . Commercial Fishery
Lee Starling. . . . . Commercial Fishery
Mel Strahosky . . . . . Commercial Fishery
Danny Trevor . . . . . Commercial Fishery

Chairman Williams called the meeting to order at 6:00 p.m. and announced that the first presentation would be the Scoping Document for Limited Access in the Commercial Reef Fish and King Mackerel Fisheries with the Scoping Document for Generic Amendment for Offshore Marine Aquaculture following.

Mr. Swingle proceeded with the presentation of the Scoping Document for Limited Access in the Commercial Reef Fish and King Mackerel Fisheries. He announced that the reason for the public hearing was that both the King mackerel and reef fish permit moratoriums were expiring in 2005 and if they were allowed to expire, it would create a large influx of new fishermen into the fisheries.

Mr. Reed, stated that he preferred no class permits, status quo, and extending the moratorium to 2010 on the reef fish and the king fish. He further added that he was in favor of the King Mackerel License Alternative 2 on page 3; Alternative 3 on page 4; and Alternative 1 on page 5. Under Qualifications, he preferred Alternative 1. **Mr. Reed** added that he was in favor of Alternative 5 on page 6; Alternative 1 on page 7; and Alternative 1 page 6. Under Reef Fish,

he stated that he preferred Alternative 1 on page 9, which was Status Quo, and that if classes were included and fishers gauged by poundage caught, many fishers would, potentially, lose their license. Under the Reef Fish Alternatives, **Mr. Reed** commented that he preferred Alternative 2 on page 9; Sub-option1(a) under Alternative 1 on page 11; Alternative 1 on page 13, and Alternative 1 on page 14. Under Qualification Criteria, he noted that he preferred "c" - Status Quo - keep at 50% of income.

Mr. Williams inquired how long Mr.. Reed had been fishing.

Mr. Reed replied that he had been fishing for snapper/grouper out of Monroe County for 18 years and had fished the East Coast prior to relocating to Monroe County. He also suggested that the South Atlantic quota date be changed to March 1 instead of April 1.

Mr. Golden stated that he had been fishing for 35 years and that he agreed with Mr. Reed that classifications would hurt the fishermen.

Mr. Starling noted that he had spearfished for snapper/grouper since 1984 and in the Southeast Atlantic and South Carolina. He stated that if license classes were put into effect, the fishermen would be forced to catch fish that weren't necessarily the fisherman's fish of choice.

Mr. Meyers, a past South Atlantic Advisory Panel member and a 25 plus year fisherman in the Lower Keys, stated that he agreed with Mr. Reed and that he was in favor of establishing a License Limitation System and keeping Status Quo on a permit moratorium. He added that the SAFMC 2 for 1 permit system was not working and the ITQ system was not working in the South Atlantic. **Mr. Meyers** suggested that the South Gulf fishing year be changed.

Mr. Gladding stated that he agreed with Status Quo on king fish (i.e., extending the moratorium) and disagreed with individual quotas and that poundage was his preferred criteria for qualification purposes. He added that the fishermen in the Keys received less money for their fish than in other areas. He wondered that if the fishermen were classified by poundage, would the yellow tail caught in the Atlantic be included in Gulf landings, as 90% of the yellowtail were claimed as Gulf fish.

Mr. Williams responded, and added that it was only his guess, that most of the landings in Monroe County are reported as Gulf and that the fisherman's trip ticket would report overall landings and the log book would verify where the fish actually came from.

Mr. Gladding reported that there was a line in Dade County and all snapper caught in the South Atlantic south of that line was credited to the Gulf of Mexico.

Mr. Williams noted that they were reported as Gulf.

Mr. Gladding suggested that if a Keys' fisherman had an active Atlantic license, he should be able to apply the Atlantic license to the Gulf.

Mr. Williams stated that perhaps the Keys' fishermen would like a single Keys' license for reef fish.

Mr. Gladding responded that he would not object to a separate Monroe County license ending at 26 degrees north, which was Naples. He added that fishermen should have the option to sell or transfer their king fish licenses should they become disabled as opposed to only upon their death. **Mr. Gladding** concluded that he was in favor of a March 1 opening, as opposed to April 1, for the hand-line fish.

Mr. Bacle, the owner of Stock Island Lobster Co., presented a letter to the Council and a paper signed by 20 fishermen from his fish house authorizing Mr. Bacle to speak on their behalf (**Attachment 1**). He stated that he preferred keeping the permit moratorium for SAFMC king mackerel as it was the system the fishery was familiar with and everyone had adjusted to it. He added that the fishermen in Key West had to deal with 4 agencies - the State of Florida, the Gulf and South Atlantic Councils, and the National Marine Sanctuary - and that it was critical that the Keys' fishermen be able to move freely between the different agencies and had reasonable access to licenses in order to keep the young fishermen in the fishery. He concluded that the moratorium should be made permanent.

Mr. Pillar, a lobster and stone crab fisherman, stated that he agreed with Mr. Bacle. He added that a higher trip limit or larger 2 day limit was needed for some alternatives.

Mr. Williams inquired if a Monroe County Federal License, which covered from the 26 degree line, north of the Cape, would be beneficial. He also stated that something had to be done with the moratorium and inquired if anyone held 2 king fish licenses.

Mr. Niles responded that it would probably be beneficial.

Mr. Gladding responded that he held 2 of all licenses except the Gulf permit and that he had 2 boats and 2 Atlantic permits and that he fished both kingfish boats, but that the boat had never caught a kingfish or a snapper/grouper and that the boat had good landings. He added that his second boat was used for bait and that fishermen were forced to do this to maintain their licenses.

Mr. Gladding noted that anyone with a permit who wanted to sell their boat would not be able to due to the fact that there were no young persons coming up in the fishery. He added that the price difference on a boat with 2 Atlantic licenses is roughly $30,000 more, and that a Gulf license added $7,000 - $8,000 and a king fish permit increased the value by $3,500 - $5,000 and the fishermen were forced to justify the costs by sloughing off fish.

Mr. Williams stated that the reason he asked if anyone held 2 licenses that there had been discussion at a Council meeting about allowing a license holder of 1 license to fish multiple boats and that he did not know any king mackerel fishers that owned 2 boats due to king mackerel being such a skilled fishery.

Mr. Gladding responded that it was not necessarily a skilled fishery, but that it was an important fishery to the fishermen and that the fishermen were happy with Status Quo, and the fishermen needed a borderline license if they fished at the 26 degree line and below, it was necessary to have both licenses.

Mr. Williams inquired if Mr. Gladding fished north of the 26 degree line.

Mr. Gladding responded that he did not fish north of the line.

Mr. Williams noted that maybe something could be worked out between the South Atlantic and Gulf Councils and with NOAA legal department to institute such a license.

Mr. Gladding stated that he had 25 permits and all of the charter permits, and that he had paid for all of them.

Mr. George Niles, Vice President of Monroe County Commercial Fishermen, stated that his organization recommended that there were no class systems and recommended Status Quo.

Mr. Williams reiterated that it was the Monroe County Commercial Fishermen's desire to convert the moratorium into a permanent license limitation system.

Mr. Niles responded that Mr. Williams' assessment was correct. He added that they would like to see the daily poundage increased to 2,000 pounds or more due to the distances the king fishers had to travel or increase the 2 day limit.

Mr. Santelli, a 10 year fisherman, 5 of which had been professional, and the owner of 2 permits, stated how costly it was for a person to enter the fishery. He added that charter boating had improved his business.

Mr. Gartenmayer stated that he was in favor of retaining the moratorium.

Mr. Williams asked for a show of hands to indicate who would be helped by 1 permit and all in attendance raised their hand.

Mr. Gladding stated that the charterboat landings should not be included in the commercial landings.

Mr. Diaz agreed with Mr. Bacle and stated that he would like to see the quota increased.

Mr. Reed recommended moving the South Atlantic season date to March 1.

Mr. Williams responded that it was unlikely that the Keys' fishermen would switch to fishing the South Atlantic quota based on a study in 1977-78 when tagged Key West king mackerel all moved to the Gulf.

Mr. Pillar stated that he had caught a tagged king fish that had been tagged off of Panama City at G marker, which is at Big Pine on the Atlantic side.

Mr. Blancko stated that he was opposed to the ITQ and was in favor of a 2,000 pound daily limit.

Meeting adjourned at 8:15 p.m.

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SOFA
Attachment 1
Madeira Beach P.H.

Commercial Industry Response and Comments to proposed King Mackerel/Reef Fish Limited Access System

The Gulf of Mexico Fishery Management Council has submitted for review to all reef fish and king mackerel permit holders in the Gulf of Mexico, a copy of the scoping document which will allow the Council to implement a license limitation, limited access and/or individual fishing quota or individual transferable quota system for the above listed fisheries.

First and foremost, the industry respectfully requests that the single scoping document be separated into two separate documents. The king mackerel fishery and reef fish fishery are two very separate fisheries and should be examined as such.

Comments and recommendations on the document follow.

1.Basic Alternatives
The industry suggests Alternative 2. Extend the current permit moratorium for 5 years, until December 31, 2010.

Discussion:
We understand that the Council is under a time deadline as the current moratorium is set to expire on December 31, 2005. It is understood that consideration needs to be given to the possibility of creating an IFQ system for the reef fish fishery. However, industry does not feel at this time that proper care and consideration to the creation of framework for such a system could be accomplished in such a short time frame.
Industry feels that if the moratorium were extended, during the time of the extension, a deliberate and more inclusive discussion of creating an IFQ system could be undertaken.

2. Forms of License Limitation
Industry supports Alternative 1. Sub-Option 1(a) Continue the existing permit moratorium indefinitely.

Industry also suggests the following:

1. Eliminate all reef fish permits which have had 0 landings in the past 5 years. (1999-2003)
2. For permit holders which have had 1-1,000 pounds of reef fish landings (excluding red snapper) in 1 of the past 5 years, create a non-transferable reef fish permit and impose a trip limit for that class of permit. (trip limit to be determined at a later date, but we believe should not exceed 500 pounds per trip)
3. For permit holders which have had 1,001-5,000 pounds of reef fish landings (excluding red snapper) create a non-transferable permit and impose a trip limit, (trip limit to be determined at a later date, but should not exceed 1,000 pounds)
4. For permit holders which have over 5,001 pounds of reef fish (excluding red snapper) in one of the last five years, create a transferable reef fish permit with no trip limit.

5. Create a longline endorsement for vessels which show logbook longline landings prior to control date of July 12, 2000.
6. Industry suggests that the Council enact the control date of July 12, 2000 in regards to gear type to prevent further participation in the longline fishery in the Gulf of Mexico.

3. Specific Features of License Limitation

3a. Licenses Initially Issued to Persons or Vessels

Industry supports Alternative 1. A commercial reef fish permit will be issued to a vessel if the vessel had a valid commercial reef fish permit 90 days prior to the implementation of this amendment.

3b. Qualification Criteria
See explanation under section 2, License Limitation

4. Initial Allocations
Industry supports Alternative 3. Do not establish initial allocations. Trip limits for all licensed vessels will be subsequently established through the framework procedure.

5. Transferability of Licenses
see explanation under section 2.

6. Bycatch provisions
Industry supports Alternative 1. Bycatch of reef fish by any vessel that does not possess a commercial reef fish license is limited to the recreational bag limit and may not be sold.

7.Ownership of Licenses by a Single Entity
No comment at this time

8. Appeals Regarding Ineligibility
Industry supports Alternative 1. Establish an appeals board to hear disputes regarding eligibility for commercial reef fish licenses and make recommendations for resolution.

9. Structure and Function of the Appeals Board.
Industry supports Alternative 1. Establish an appeals board composed of 5 members associated with the commercial reef fish fishery. Appeals board members will be selected by the Council from a list of three 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 appeal.

Finally, while the commercial industry is not opposed to the discussion of an IFQ program for the reef fish fishery, there are many concerns among the participants. Allocation, distribution of shares and the complexity of a multi species fishery are among

the concerns. We feel that at this time, this document should not be used as a preliminary framework for an IFQ system. We feel that an extension of the permit moratorium, the creation of license limitation system based on reef fish landings(excluding red snapper) and a longline endorsement are necessary. Industry looks forward to working with the Gulf Council and NMFS in the future to help develop a framework process for an ITQ system for the reef fish fishery in a more deliberate and inclusive manner.

ATTACHMENT 1
to Key West Public Hearing

Gulf of Mexico Fishery Management Council
The Commons at Rivergate
3018 North U.S. Highway 301, suite 1000
Tampa, Florida 33619-2272

February 25, 2004

Re: Proposed amendment for king mackerel and reef fish permitting

Dear Council Members,

On behalf of myself and the fishermen of Stock Island Lobster Company, I urge you to place no further restrictions than what we already have, on our ability to harvest fish and operate our businesses in the most efficient way that we see fit. Commercial fishing is under extreme pressure in Key West and the Keys, and the further loss of even a few licenses or harvesting ability will have a major impact on our viability as an industry.

While our stocks all appear to be very healthy, our ability to harvest them efficiently has been severely limited by the sheer volume of regulations, restrictions, and closures that come our way. Most areas have to deal with both a state and federal regulatory body, but The Keys must deal with the state, two federal councils, and the Florida Keys National Marine Sanctuary. The FKNMS as you are undoubtedly aware, has already taken over 150 sq. mi. of our most prolific fishing areas for reserves, including Little Sambos, Tortugas Bank, and Riley's Hump.

Sky-rocketing property values are making it very difficult to maintain prime waterfrontage for the relatively low intensity commercial fishing usage. At Stock Island Lobster(SILCO), our Property tax has gone from $12,000 to $28,000/yr in the last 4 years, and the drop in the number of boats in our Key West fishery – SILCO is down from 55 to 35 in the last 10 years – is already forcing us to sell a part of our property that has been used by my family for commercial fishing since 1953.

In addition, the pressure from recreational and charter fishing is probably nowhere more intense than it is in the Keys. Not only are we being forced to go farther for our catch, but recreational boaters are buying up dockage and waterfront property at prices that commercial fishing simply cannot afford. Many recreational and environmental organizations also believe that commercial fishing should be eliminated entirely from the Keys, and are working towards that goal.

Commercial fishing is not only a very traditional industry in Key West – my son is a fifth generation fisherman – but is considered to play a vital role in the image of the Keys that is so popular with tourists. The Key West Chamber of Commerce, which has over 500 members, passed a resolution in support of commercial fishing, and declared it to be extremely important to the tourism industry.

The Gulf Council cannot, of course, solve all these problems for us. It can however take one small step towards helping us, by not burdening us with further restrictions. It is absolutely crucial to our survival that we maintain the flexibility to utilize all of the fishery resources in our area, and be able to move freely within the different fisheries as need dictates.

Neither I nor the fishermen at Stock Island Lobster would have formulated a fishery plan such as we have today, but we are all realistic enough to know that we have to live with it, and that any changes will only be more restrictive not less. The effect of constant change in permitting requirements is to destabilize the industry, and discourage promising young people from seeking a career in fishing. With all the regulations for the protection of each species in place and working, now is the right time to quit trying to further fine tune these fisheries, and give the industry some time to stabilize. In light of all this, we urge you to maintain the status quo, even if it means institutionalizing some of the changes that have been temporary until now.

Sincerely,

Peter M. Bacle
Owner: Stock Island Lobster Co.
Key West

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
Reef Fish Advisory Panel
Conference Call, October 28, 2004

The meeting was called to order at 10:05 AM EST by Dr. Robert Shipp. There were nine members present, two short of a quorum. Stu Kennedy provided a short summary of Amendment 24 to the Reef Fish Fishery Management Plan which contains a single action to continue the current commercial reef fish permit moratorium in the Gulf or allow it to expire. At the October meeting, the Council chose Alternative 4 which extended the moratorium indefinitely through a limited access system.

Dr. Shipp then asked the AP member present if there was any objection to recommending Alternative 4 to the Council; there were none.

Bob Zales reiterated his position on the development of IFQs for the Gulf reef fish fishery. He stated that there should be a template or framework procedure for IFQs that include the core elements for developing an IFQ for any commercial fishery. Specifics could then be developed around these core elements as new species or fisheries are added. There seemed to be general agreement that standardization of IFQ programs across commercial fisheries in the Gulf would increase familiarity and improve acceptance and compliance.

The conference call was adjourned at 10:15 AM, EST.

AP members Present: Robert Shipp, Chair
Ralph Allen
Marianne Cufone
Chris Jenkins
Eric Schmidt
Robert Spaeth
Frank Stevenson
Wayne Werner
Bob Zales, II

Others: Stu Kennedy, Council Staff

NOTE: Mr Irby Basco called in at 10:25 AM EST after obtaining the correct call-in number from the Council Office. He agreed with the recommendations made by the AP members present. However, had Mr. Basco been present during the meeting, there still would not have been a quorum.

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 24 to the Reef Fish FMP

W. Keithly reviewed the alternatives for Action 1. Following discussion, **the SSC recommended Alternative 4 to allow time for the Council to pursue more applicable limited access systems for the fishery and proceed with development of such limited access systems. The SSC also recommended that the Council establish a timeline for implementing a limited access system for all reef fish fisheries, and supported the Council's recent action to move forward with an IFQ system for groupers.**

The SSC voted **to encourage the Council to identify each of the components of the reef fish fishery that are being considered for limited access and to develop a timeline for their development.**

Finally, the SSC discussed participation by SSC members at meetings, how to increase interaction with the Council, and getting commitments from members for participation during the appointment process. It was suggested that W. Keithly work with Executive Director, Wayne Swingle and Chairman Julie Morris to schedule a meeting of SSC members (subcommittee) and the appropriate Committee(s) or Council to discuss these issues and perhaps others that may be developed as talking points.

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 supported a 10-year extension on the moratorium or a permanent moratorium. He stated that there were less snappers now than in the past.

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 Alternative 4. He also supported a permanent moratorium.

Terry Pizani - Shrimp Fisherman. He supported Alternative 4.

Dean Blanchard - Seafood Dealer. He supported Alternative 4.

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. There is a general consensus to support Alternative 4. They do not support Class 1 and Class 2 licenses as it is currently with red snapper. They would support a ten-year moratorium.

Mr. Benji Kelley, Panama City FL, stated that he was representing Kelley Charters. The words "limited access" scare him and he would support a ten-year moratorium. He doesn't like Class 1 or Class 2.

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