

Modification to the Reef Fish Permit Condition for For-hire Vessels

U.S. Department of Commerce, NOAA
NMFS PERMITS OFFICE, F/SER14
263 13th Avenue South
St. Petersburg, FL 33701
Toll Free 877-376-4877 (8:00 a.m. - 4:30 p.m. ET)
727-824-5326 (8:00 a.m. - 4:30 p.m. ET)
permits.sero.nmfs.noaa.gov



OMB No. 0648-0205 Form Approval Expires: 10/31/2014

**FEDERAL PERMIT APPLICATION FOR
VESSELS FISHING IN THE EXCLUSIVE
ECONOMIC ZONE (EEZ)**

FOR OFFICE USE ONLY

Application ID

FOR OFFICE USE ONLY

Reviewer's Initials and Date	
Permit Check or Money Order Number and Amount	
Floy Tag Check or Money Order Number and Amount	
Sanctioned Case Number if Sanctioned	
Non Compliance Hold Date	
Non Compliance Cleared Date	
Expiration Date(s)	

REMEMBER TO SEND A COPY of the current (not expired) United States Coast Guard (USCG) Certificate of Documentation or a copy of the State Vessel Registration. Do not send the original. If the vessel's state registration does not list all owners, also provide a copy of the vessel's title, or other documentation from the appropriate state agency, that identifies all vessel owners.

Final Framework Action to the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico

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

March 2014



This is a publication of the Gulf of Mexico Fishery Management Council Pursuant to National Oceanic and Atmospheric Administration Award No. NA10NMF4410011.

This page intentionally blank

ENVIRONMENTAL ASSESSMENT COVER SHEET

Name of Action

Framework Action to the Reef Fish Fishery Management Plan Addressing Modification to the Reef Fish Permit Condition for For-hire Vessels, including Environmental Assessment, Regulatory Impact Review, and Regulatory Flexibility Act Analysis

Responsible Agencies and Contact Persons

Gulf of Mexico Fishery Management Council (Council)	813-348-1630
2203 North Lois Avenue, Suite 1100	813-348-1711 (fax)
Tampa, Florida 33607	gulfcouncil@gulfcouncil.org
Steven Atran (steven.atran@gulfcouncil.org)	http://www.gulfcouncil.org

National Marine Fisheries Service (Lead Agency)	727-824-5305
Southeast Regional Office	727-824-5308 (fax)
263 13 th Avenue South	http://sero.nmfs.noaa.gov
St. Petersburg, Florida 33701	
Cynthia Meyer (Cynthia.Meyer@noaa.gov)	

Type of Action

☐ Administrative
☐ Draft

☐ Legislative
☒ Final

ABBREVIATIONS USED IN THIS DOCUMENT

ABC	Acceptable biological catch
ACL	Annual catch limit
ACT	Annual catch target
AMs	Accountability measures
Council	Gulf of Mexico Fishery Management Council
CFR	U.S. Code of Federal Regulations
CZMA	Coastal Zone Management Act
EEZ	Exclusive Economic Zone
EFH	Essential fish habitat
EIS	Environmental Impact Statement
EJ	Environmental justice
E.O.	Executive Order
ESA	Endangered Species Act
FL	Fork length
FMP	Fishery Management Plan
FWCC	Fish and Wildlife Conservation Commission
GMFMC	Gulf of Mexico Fishery Management Council
Gulf	Gulf of Mexico
GW	Gutted weight
HAPC	Habitat area of particular concern
IFQ	Individual Fishing Quota
LA-DWF	Louisiana Department of Wildlife and Fisheries
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
MMPA	Marine Mammal Protection Act
mp	Million pounds
MRFSS	Marine Recreational Fisheries Survey and Statistics
MRIP	Marine Recreational Information Program
MSST	Minimum stock size threshold
MSY	Maximum sustainable yield
BEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OFL	Overfishing level
RFA	Regulatory Flexibility Act of 1980
RFAA	Regulatory Flexibility Act Analysis
RIR	Regulatory impact review
SAC	Submerged aquatic vegetation
SEAMAP	Southeast Area Monitoring and Assessment Program
SEDAR	Southeast Data, Assessment and Review
SEFSC	Southeast Fisheries Science Center
SERO	Southeast Regional Office
SRHS	Southeast Region Headboat Survey
SSC	Scientific and Statistical Committee
SPR	Spawning potential ratio

TAC	Total allowable catch
TIP	Trip Interview Program
TL	Total length
TPWD	Texas Parks and Wildlife Department
VOC	Volatile organic compounds
ww	whole weight

TABLE OF CONTENTS

Environmental Assessment Cover Sheet	i
Abbreviations Used in this Document	ii
List of Tables	vi
List of Figures	vii
Chapter 1. Introduction	8
1.1 Background	8
1.2 Purpose and Need	16
1.3 History of Management	16
Chapter 2. Management Alternatives	22
2.1 Action 1 – Revise For-hire Permit Condition for Fishing in State Waters	22
Chapter 3. Affected Environment	26
3.1 Description of the Physical Environment	26
3.2 Description of the Biological/Ecological Environment	27
3.3 Description of the Economic Environment	41
3.3.1 Commercial Sector	41
3.3.2 Recreational Sector	41
3.4 Description of the Social Environment	43
3.5 Description of the Administrative Environment	50
3.5.1 Federal Fishery Management	50
3.5.2 State Fishery Management	50
Chapter 4. Environmental Consequences	51
4.1 Action 1: Rescind Permit Condition for Fishing in State Waters	51
4.1.1 Direct and Indirect Effects on the Physical Environment	51
4.1.2 Direct and Indirect Effects on the Biological/Ecological Environment	52
4.1.3 Direct and Indirect Effects on the Economic Environment	58
4.1.4 Direct and Indirect Effects on the Social Environment	61
4.1.5 Direct and Indirect Effects on the Administrative Environment	63
4.2 Cumulative Effects Analysis	64
Chapter 5. Regulatory Impact Review	67
5.1 Introduction	67
5.2 Problems and Objectives	67
5.3 Description of Fisheries	67

5.4 Impacts of Management Measures	67
5.5 Public and Private Costs of Regulations	68
5.6 Determination of Significant Regulatory Action	69
Chapter 6. Regulatory Flexibility Act Analysis.....	70
6.1 Introduction.....	70
6.2 Statement of the need for, objective of, and legal basis for the proposed action.....	70
6.3 Description and estimate of the number of small entities to which the proposed action would apply	71
6.4 Description of the projected reporting, record-keeping and other compliance requirements of the proposed action, including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for the preparation of the report or records	71
6.5 Identification of all relevant federal rules, which may duplicate, overlap or conflict with the proposed action.....	72
6.6 Significance of economic impacts on a substantial number of small entities.....	72
6.7 Description of the significant alternatives to the proposed action and discussion of how the alternatives attempt to minimize economic impacts on small entities	73
Chapter 7. List of Agencies and Persons Consulted	74
Chapter 8. References	75
Appendix A. Other Applicable Law	85
Appendix B. Summaries of Public Comments Received	93
Appendix C. Potential impacts of revising amendment 30b permit restrictions	94

LIST OF TABLES

Table 1.1.1. Recreational federal red snapper seasons, quotas, and landings.....	11
Table 1.1.2. Recreational federal gag seasons, quotas, and landings.....	12
Table 1.1.3. Recreational gray triggerfish seasons, quotas, and landings.....	12
Table 1.1.4. Recreational greater amberjack seasons, quotas, and landings.....	13
Table 1.1.5. Management objectives of the reef fish fishery management plan.....	14
Table 1.1.6. Examples of federal Gulf reef fish regulations that apply regardless of where harvesting, landing, or operating.	15
Table 3.2.1. Summary of habitat utilization by life history stage for species in the Reef Fish FMP.....	32
Table 3.2.2. Species of the Reef Fish FMP grouped by family.	36
Table 3.3.1. Summary of recreational target trips and associated business activity (million 2013 dollars; all modes).....	43
Table 3.4.1. Number of Gulf charter-headboat permits for reef fish and historical captain charter-headboat permits for reef fish, by state and by year.....	44
Table 3.4.2. Top ranking communities based on the number of Gulf charter-headboat permits for reef fish and historical captain charter-headboats for reef fish, in descending order.....	45
Table 3.4.3. Number of vessels with Gulf charter-headboat permits for reef fish and commercial reef fish permits, by state for Gulf states.	45
Table 3.4.4. Top ranking Gulf communities based on recreational fishing engagement and reliance, in descending order.	47
Table 3.4.5. Each state’s average proportion of minorities and population living in poverty, and the corresponding threshold used to consider an area of potential EJ concern.	49
Table 4.1.2.1. Total estimated MRIP landings of red snapper, red grouper, and gag reported in state and federal waters of the Gulf.	54
Table 4.1.2.2. Total estimated Texas landings of red snapper, red grouper, and gag reported in state and federal waters of the Gulf.	54
Table 4.1.2.3. Total estimated Southeast Region Headboat Survey landings of red snapper, red grouper, and gag reported in state and federal waters of the Gulf.....	54
Table 4.1.4.1. Comparison of fishing opportunities (Alternative 1) allowed among recreational vessels in state and federal waters, in states with consistent and inconsistent regulations for red snapper.	62

LIST OF FIGURES

Figure 3.1.1. Physical environment of the Gulf including major feature names and mean annual sea surface temperature as derived from the Advanced Very High Resolution Radiometer Pathfinder Version 5 sea surface temperature data set (<http://accession.nodc.noaa.gov/0072888>) 27

Figure 3.2.1. Fishery closure at the height of the Deepwater Horizon MC252 oil spill. 40

Figure 4.1.2.1. Estimated total recreational landings of red snapper reported in state and federal waters of the Gulf 2004-2012. 55

Figure 4.1.2.2. Estimated total estimated landings of gag reported in state and federal waters of the Gulf 2004-2012. 55

Figure 4.1.2.3. Estimated total recreational landings of red grouper reported in state and federal waters of the Gulf 2004-2012. 55

CHAPTER 1. INTRODUCTION

1.1 Background

In 2009 as part of Reef Fish Amendment 30B (GMFMC 2008b), a requirement was implemented for charter vessels and headboats with federal permits to abide by federal reef fish regulations while fishing in state waters if the federal regulations were more restrictive than state regulations (referred to in this document as the 30B permit provision). The purpose of this management action was to improve the effectiveness of federal management measures in response to less restrictive regulations in some state waters for reef fish. Specifically, the action was intended to improve the ability of the National Marine Fisheries Service (NMFS) to constrain harvest to the applicable quotas and to reduce the likelihood of overfishing occurring. Of primary concern were stocks classified as overfished: red snapper, gag, gray triggerfish, and greater amberjack.

This framework action proposes rescinding the 30B permit provision for the following reasons, which are explained in more detail below:

- 1) The provision has not improved the effectiveness of federal management measures;
- 2) It has resulted in a loss of economic opportunities for vessels from states with extended state seasons;
- 3) It has created user conflicts and a perception of unequal access to the resource; and
- 4) It has created conflicts between federal and state regulations.

Effectiveness of Federal Management Measures

When implemented, it was expected that the 30B permit provision would encourage the states to adopt consistent regulations, so as not to disadvantage their state's federally permitted for-hire fleet. However, rather than increase state compliance, there is greater state regulation inconsistency now than when the 30B provision was put in place. This means that more for-hire vessels are negatively impacted, than expected at the time the provision was enacted, and this objective of the 30B permit provision is not being achieved.

Despite implementation of the 30B permit provision, overharvests continued for some stocks in the recreational sector. In particular, for red snapper, an 89% overharvest, the highest recorded, occurred in 2009, after implementation (Table 1.1.1). Tables 1.1.1 – 1.1.4 show recreational landings relative to the recreational quota or annual catch limit (ACL) through 2012 for stocks currently classified as overfished: red snapper, gag, gray triggerfish, and greater amberjack. Quota overruns have continued for the recreational red snapper sector in 2011 and 2012. Gray triggerfish had a 15% overage in 2012, the first year of ACLs for that stock (Table 1.1.3). Harvest levels were reduced for most stocks in 2010 due to the Deepwater Horizon MC252 oil spill, yet overages occurred for the recreational greater amberjack sector in 2009 and 2010 (Table 1.1.4). Greater amberjack recreational harvest was subsequently below the ACL in 2011 and 2012 (Table 1.1.4).

While the presence or absence of the 30B permit provision affects the length of the federal season for stocks subject to quota or ACL closures, the prevention of overharvests is primarily

dependent on the accuracy of NMFS harvest projections. The 30B permit provision does not affect the method used to make the projections, and therefore does not contribute to the effectiveness of federal management measures.

While some stocks have been subject to overharvests, harvest of gag has been consistently below its ACL. In 2011, the recreational gag ACL was set to a very low ACL of 0.964 mp with a 61 day season in response to an update assessment (SEDAR 10 2009) that resulted in an overfished determination. Both the ACL and season length have increased in subsequent years. However, even with the short season and low ACL, gag recreational landings have stayed below the ACLs since 2009 (Table 1.1.2). Given that the recreational ACL for gag has not been met, nor has the greater amberjack ACL been met in the most recent two years, it may be that allowing additional effort for gag and greater amberjack by rescinding the 30B permit provision would improve management effectiveness by helping to more completely achieve optimum yield (OY).

Loss of Economic Opportunities

For vessels operating from states that have extended state seasons, public testimony indicated that the 30B permit provision has resulted in an economic loss to some federally-permitted vessels and a loss of recreational fishing opportunities (Appendix B). In addition, Amendment 30B noted that for-hire vessels may be disadvantaged against private vessels which would not be affected by the permit provision, and would also be placed at a disadvantage against non-federally permitted vessels (i.e., vessels with a state for-hire permit but not a federal permit) when fishing in state waters (GMFMC 2008b). This disadvantage would occur when the federal season is closed and state waters are open. During the open federal season, the ability to fish in federal waters would give federally permitted vessels an advantage over non-federally permitted for hire vessels which are constrained from chartering for reef fish in federal waters at any time. However, it would provide no advantage over private vessels which are able to both fish in federal waters during the federal season and in state waters during the extended state season.

For vessels from states that have consistent regulations, the 30B permit provision has no impact on fishing activities in state waters, and provides some economic benefit by allowing a longer federal season. Vessels from states with extended state seasons would also be able to participate in a longer federal season, but the extended state seasons provide additional fishing days in state waters that would offset loss of days in federal waters if the permit provision were rescinded.

User Conflicts

Federally permitted for-hire vessels, state-permitted vessels, and private recreational vessels fish on the same recreational allocation and frequently out of the same marinas. The 30B permit provision linked with extended state seasons has created the perception of unequal treatment between segments of the recreational sector. In states that have adopted extended state seasons, vessels with a federal reef fish permit are prohibited from fishing for red snapper in state waters while other vessels in the same state (and sometimes the same marina) are allowed. This can be confusing for potential for-hire passengers. In public testimony (summarized in Appendix B), this was seen as a user conflict and a fairness issue between vessels that are permitted to fish in state waters and vessels that are not permitted to fish in state waters during the extended state

seasons. This user conflict between segments of the recreational sector is inconsistent with FMP objectives listed in Table 1.1.5 to minimize such conflicts (FMP objective FMP-4 and objective A1-2 in Table 1.1.5).

Conflict between Federal and State Regulations

For states that have extended seasons, the 30B permit provision prevents federally permitted for-hire vessels from fishing for red snapper in state waters at times when state regulations allow recreational fishing. The provision also prohibits federally permitted vessels from abiding by other state regulations in state waters if less restrictive than federal regulations, such as smaller size limits or larger bag limits¹. NMFS has suggested that the federal permit is voluntary, and that permit holders have the option of relinquishing the permit if they do not wish to abide by the provision. However, such vessels would then be prohibited from operating as a for-hire vessel for reef fish in federal waters. For vessels to operate as for-hire in federal waters, the permit is mandatory. Regardless of whether a permit is considered voluntary or mandatory, the 30B permit provision is a federal regulation that applies to fishing in state waters, and in some cases, conflicts with state regulations.

Amendment 30B cited examples of previous regulations for commercial vessels where permit conditions applied regardless of where fish were harvested. Those regulations that are still in effect are listed in Table 1.1.6 (one regulation for a commercial closed season on gag, black, and red grouper has since been repealed). However, these regulations apply where there is an absence of applicable state regulations and thus no conflict.

Dual-permitted Vessels

This framework action only considers modification to the permit condition for the Gulf reef fish for-hire fleet (charter vessels and headboats). Inconsistent state and federal regulations have not been identified as an issue for the commercial sector. Thus, modification of the provision for the commercial sector is not being considered in this action.

An additional consideration is the application of the 30B permit provision to dual-permitted vessels which possess both Gulf charter/headboat and Gulf commercial permits for reef fish. Even if the 30B permit provision is revised or rescinded for the for-hire vessel permit, a similar provision exists for the commercial reef fish vessel permit. Because the permit condition does not explicitly state that it applies only to commercial fishing, it could be interpreted to apply to all fishing by the vessel, including recreational fishing under charter.

During Council deliberations, there were no specific discussions of dual-permitted vessels and how revising or rescinding this restriction would affect them. However, Council deliberations inferred the permit modification should apply to all federally permitted for-hire vessels. Analyses presented to the Council for their consideration in approving this action for review by the Secretary of Commerce treated dual-permitted vessels as vessels to be included in

¹ For example, Texas has a 4-fish bag limit and 15-inch TL minimum size limit for red snapper, compared with a 2-fish bag limit and 16-inch recreational minimum size limit in federal waters.

the rescission. Thus, this framework action considers the intent of the Council is that dual-permitted vessels would be allowed to fish recreationally in state waters under state regulations when state waters are open. The prohibition on commercial harvest of reef fish in state waters when the exclusive economic zone (EEZ) is closed to commercial fishing would continue.

Table 1.1.1. Recreational federal red snapper seasons, quotas, and landings.

Year	Season dates	Number of Days	Recreational Quota	Recreational Landings	Percent Over/Under
1996	January 1 – December 31	365	4.47 mp	4.346 mp	3% under
1997	January 1 – November 27	330	4.47 mp	6.008 mp	34% over
1998	January 1 – September 30	272	4.47 mp	4.258 mp	5% under
1999	January 1 – August 29	240	4.47 mp	3.999 mp	11% under
2000	April 21 – October 31	194	4.47 mp	3.932 mp	12% under
2001	April 21 – October 31	194	4.47 mp	4.468 mp	<1% under
2002	April 21 – October 31	194	4.47 mp	5.383 mp	20% over
2003	April 21 – October 31	194	4.47 mp	4.847 mp	8% over
2004	April 21 – October 31	194	4.47 mp	4.996 mp	12% over
2005	April 21 – October 31	194	4.47 mp	4.084 mp	9% under
2006	April 21 – October 31	194	4.47 mp	4.021 mp	10% under
2007	April 21 – October 31	194	3.185 mp	4.440 mp	39% over
2008	June 1 – August 4	65	2.45 mp	3.712 mp	52% over
2009	June 1 – August 14	75	2.45 mp	4.625 mp	89% over
2010	June 1 – July 23; Oct 1 – Nov. 21 (Fri, Sat., & Sun.)	77	3.403 mp	2.239 mp	34% under
2011	June 1 – July 18	48	3.866 mp	4.603 mp	19% over
2012	June 1 – July 16	46	3.959 mp	5.146 mp	30% over
2013	June 1 – June 28 and Oct. 1 – Oct. 14	42	5.39 mp	tbd	

Quotas and landings are in millions of pounds (mp) whole weight. Source: Southeast Fisheries Science Center (SEFSC) annual catch limit dataset, including landings from the Marine Recreational Information Program, Texas Parks and Wildlife Department (TPWD), and the Southeast Region Headboat Survey (May 2013).

Table 1.1.2. Recreational federal gag seasons, quotas, and landings.

Year	Season dates	Number of Days	Recreational Quota	Recreational Landings	Percent Over/Under ACL
	Prior to 2007	365			
2007	Jan. 1 – Feb. 14 and Mar. 15 – Dec. 31	337	no quota	2.287 mp	
2008	Jan. 1 – Feb. 14 and Mar. 15 – Dec. 31	337	no quota	3.320 mp	
2009	Jan. 1 – Jan. 31 and Apr. 1 – Dec. 31	275	2.06 mp ACT 2.59 mp ACL	1.543 mp	40% under
2010	Jan. 1 – Jan. 31 and Apr. 1 – Dec. 31	275	2.14 mp ACT 2.64 mp ACL	1.738 mp	34% under
2011	Sep. 16 – Nov. 15	61	0.781 mp ACT 0.964 mp ACL	0.778 mp	19% under
2012	July 1 – Oct. 31	123	1.031 mp ACT 1.232 mp ACL	1.054 mp	14% under
2013	July 1 – Dec. 2	155	1.287 mp ACT 1.495 mp ACL	tbd	

ACTs, ACLs, and landings are in millions of pounds (mp) whole weight. The ACT is the quota, but post-season accountability measures are only implemented if the ACL is exceeded. Source: SEFSC.

Table 1.1.3. Recreational gray triggerfish seasons, quotas, and landings.

Year	Season dates	Number of Days	Recreational Quota	Recreational Landings	Percent Over/Under ACL
	Prior to 2012	365			
2012	Jan. 1 – June 10	161	0.217 mp ACT 0.241 mp ACL	0.278 mp	15% over
2013	Jun. 1 – May 30 and Aug. 1 – Oct. 15	226	0.217 mp ACT 0.241 mp ACL	tbd	

ACTs, ACLs, and landings are in millions of pounds (mp) whole weight. The quota is the ACT. Source: SEFSC.

Table 1.1.4. Recreational greater amberjack seasons, quotas, and landings.

Year	Season dates	Number of Days	Recreational Quota	Recreational Landings	Percent Over/Under
	Prior to 2009	365			
2009	Jan. 1 – Oct. 23	288	1.368 mp	1.494 mp	9% over
2010	Jan. 1 – Dec. 31	365	1.243 mp	1,296 mp	4% over
2011	Jan. 1 – May 30 and Aug. 1 – Dec. 31	304	1.315 mp	1.032 mp	22% under
2012	Jan. 1 – May 30 and Aug. 1 – Dec. 31	305	1.368 mp	1.323 mp	3% under
2013	Jan. 1 – May 30 and Aug. 1 – Dec. 31	304	1.130 mp ACT 1.299 mp ACL	tbd	

ACTs, ACLs, quotas, and landings are in millions of pounds (mp) whole weight. When ACT is specified, the quota is the ACT. Source: Southeast Fisheries Science Center (SEFSC).

Table 1.1.5. Management objectives of the reef fish fishery management plan.

	Overall Goal
	To manage the reef fish fishery of the United States within the waters of the Gulf of Mexico Fishery Management Council jurisdiction to attain the greatest overall benefit to the nation with particular reference to food production and recreational opportunities on the basis of the maximum sustainable yield as reduced by relevant ecological, economic, or social factors.
	Objectives shown in the original FMP
FMP-1	To rebuild the declining fish stocks wherever they occur within the fishery.
FMP-2	To establish a fishery reporting system for monitoring the reef fish fishery.
FMP-3	To conserve and increase reef fish habitats in appropriate areas and to provide protection for juveniles while protecting existing and new habitats.
FMP-4	To minimize conflicts between user groups of the resource and conflicts for space.
	Amendment 1 added the following objectives
A1-1	The primary objective of the FMP shall be to stabilize long term population levels of all reef fish species by establishing a certain survival rate of biomass into the stock of spawning age to achieve at least 20 percent spawning stock biomass per recruit (SSBR)*.
A1-2	To reduce user conflicts and nearshore fishing mortality.
A1-3	To respecify the reporting requirements necessary to establish a database for monitoring the reef fish fishery and evaluating management actions.
A1-4	To revise the definitions of the fishery management unit and fishery to reflect the current species composition of the reef fish fishery.
A1-5	To revise the definition of optimum yield to allow specification at the species level.
A1-6	To encourage research on the effects of artificial reefs.
A1-7	To maximize net economic benefits from the reef fish fishery.
	Amendment 15 broadened the objectives as follows
A15-1	To increase the stability of the red snapper fishery in terms of fishing patterns and markets.
A15-2	To avoid to the extent practicable the "derby" type fishing season.
A15-3	To promote flexibility for the fishermen in their fishing operations.
A15-4	To provide for cost-effective and enforceable management of the fishery.
A15-5	To optimize, to the extent practicable and allowed by law, net benefits from the fishery.
A15-6	To reduce the harvesting capacity of the red snapper fleet in an equitable manner utilizing demonstrated historical dependence on the red snapper resource as a criterion.

* As a result of the Sustainable Fisheries Act of 1999 and subsequent National Standard 1 guidelines, the specific target under the primary objective is to achieve a biomass corresponding to optimum yield, but in no case less than the biomass achieved by fishing at a rate corresponding to maximum sustainable yield (F_{MSY}).

Table 1.1.6. Examples of federal Gulf reef fish regulations that apply regardless of where harvesting, landing, or operating.

Fishery	Regulation	Citation
Commercial Red Snapper	For a person aboard a vessel, for which a commercial vessel permit for Gulf reef fish has been issued, to fish for, possess, or land Gulf red snapper, regardless of where harvested or possessed, a Gulf IFQ vessel account for Gulf red snapper must have been established. As a condition of the IFQ vessel account, a person aboard such vessel must comply with the requirements of this section, § 622.21, when fishing for red snapper regardless of where the fish are harvested or possessed.	50 CFR 622.21(a)(6)(b)
Commercial Red Snapper	In addition, the bag and possession limits for red snapper, when applicable, apply on board a vessel for which a commercial permit for Gulf reef fish has been issued, as required under § 622.20(a)(1), without regard to where such red snapper were harvested.	50 CFR 622.39(b)(1)
Commercial Greater Amberjack	During March, April, and May, each year, the possession of greater amberjack in or from the Gulf EEZ and in the Gulf on board a vessel for which a commercial permit for Gulf reef fish has been issued, as required under § 622.20(a)(1), without regard to where such greater amberjack were harvested, is limited to the bag and possession limits, as specified in § 622.38(b)(1) and (c), respectively...	50 CFR 622.36(a)
Reef Fish VMS	The VMS requirements of this section apply throughout the Gulf of Mexico and adjacent states. (a) General VMS requirement. An owner or operator of a vessel that has been issued a commercial vessel permit for Gulf reef fish, including a charter vessel/headboat issued such a permit even when under charter, must ensure that such vessel has an operating VMS approved by NMFS for use in the Gulf reef fish fishery on board at all times whether or not the vessel is underway,	50 CFR 622.28(a)

Note: Examples are taken from Amendment 30B. However, most of the citations have changed. One regulation cited in Amendment 30B has been rescinded for the commercial sector and is not been included in the above table.

Gulf of Mexico Fishery Management Council

- Responsible for conservation and management of fish stocks
- Consists of 17 voting members, 11 of whom are appointed by the Secretary of Commerce, the National Marine Fisheries Service Regional Administrator, and 1 representative from each of the 5 Gulf states marine resource agencies
- Responsible for developing fishery management plans and amendments, and for recommending actions to National Marine Fisheries Service for implementation

National Marine Fisheries Service

- Responsible for conservation and management of fish stocks
- Approves, disapproves, or partially approves Council recommendations
- Implements regulations

1.2 Purpose and Need

The purpose of this framework action is to revise a management action implemented in 2009 under Amendment 30B (GMFMC 2008b) that requires federally permitted charter vessels and headboats to abide by federal reef fish regulations if more restrictive than state regulations when fishing in state waters.

The need is to reduce economic losses by vessels constrained from fishing in state waters during open state seasons, to reduce or minimize user conflicts among user groups of the recreational sector, to rescind a regulation that has not been effective in encouraging states to adopt consistent regulations, and to resolve possible conflicts between federal and state regulations regarding allowable fishing activities in state waters by for-hire vessels.

1.3 History of Management

This history of management only covers events pertinent to recreational fishing seasons for red snapper, gag, gray triggerfish and greater amberjack. A complete history of management for the Reef Fish FMP is available on the Gulf of Mexico Fishery Management Council's (Council's) website: http://www.gulfcouncil.org/fishery_management_plans/reef_fish_management.php

Prior to 1997, recreational fishing for all reef fish was open year round in the Gulf of Mexico (Gulf) EEZ. Catch levels were controlled through minimum size limits and bag limits. The Sustainable Fisheries Act of 1996 required the establishment of quotas for recreational red snapper fishing and commercial fishing that, when reached, result in a prohibition on the

retention of fish caught for each sector, respectively, for the remainder of the fishing year. From 1997 through 1999, NMFS implemented the recreational red snapper quota requirement through an in-season monitoring process by establishing a quota monitoring team that, through monitoring landings data that were available, plus projecting landings based on past landings patterns, projected closing dates a few weeks in advance. Additional details regarding the seasons and regulation changes for red snapper are presented in Hood et al. (2007).

For the years 1997 through 1999, the recreational season for red snapper was closed on November 27, October 1, and August 29, respectively. In 1999, an emergency rule temporarily raised the recreational red snapper minimum size limit from 15 to 18 inches total length (TL) during the season from June 4 to August 29 in an attempt to slow down the retained harvest rate. Without this emergency rule, the season would have closed on August 5. However, the rule resulted in a large increase in dead discards, and the size limit was allowed to revert back to 15 inches TL the following year. Since quota closures have been implemented in the EEZ, Texas has chosen to continue to leave its state waters open year round with a 4-fish bag limit and a 15-inch TL minimum size limit.

A February 2000 regulatory amendment (GMFMC 2000) replaced the system of in-season monitoring and closure projections for red snapper with a fixed season based on a pre-season projection of when the recreational quota would be reached. The season for 2000 and beyond was initially set at April 15 through October 31, with a 16-inch TL minimum size limit, a 4-fish bag limit, and a zero bag limit of red snapper by the captain and crew of for-hire vessels. Shortly before the regulatory amendment was submitted to NMFS, the Council, at the request of representatives of the for-hire industry, withdrew the zero bag limit proposal for captain and crew. NMFS recalculated the season length under the revised proposal, and as a result, the regulatory amendment was implemented with a recreational fishing season of April 21 through October 31. Florida had already implemented an April 15 starting date in state waters based on the draft regulatory amendment, and declined to modify their state season a second time. These recreational red snapper fishing seasons remained in effect through 2007.

In 2008, Reef Fish Amendment 27/Shrimp Amendment 14 (GMFMC 2007) revised the rebuilding plan for red snapper. For the recreational sector, the rule implemented a June 1 through September 30 fishing season in conjunction with a 2.45 mp recreational quota, 16-inch TL minimum size limit, 2-fish bag limit, and zero bag limit for captain and crew of for-hire vessels. The implementing regulations for this amendment created the June 1 through September 30 season by establishing fixed closed seasons of January 1 through May 31 and October 1 through December 31.

Florida adopted a compatible 2-fish bag limit, but maintained its state red snapper fishing season of April 15 through October 31, 78 days longer than the federal fishing season. Texas also maintained its 4-fish bag limit and year-round fishing season in its state waters. Prior to the start of the 2008 season, NMFS recalculated its projections for recreational red snapper catches in light of the state regulations, and projected that there would be a 75% probability that the recreational quota would not be exceeded if the season closed on August 5. As a result, NMFS took action to set the 2008 season to be June 1 to August 5. In 2009, NMFS again recalculated

its projections for the season length prior to the start of the recreational season, and announced that the recreational season would be June 1 to August 15.

In 2006 and 2007, the SEDAR 10 (2006) assessment and a subsequent 2007 reanalysis with corrected dead discard estimates (NMFS 2007) concluded that the gag stock was undergoing overfishing and had been since the 1970s. In response, a regulatory amendment, implemented July 2006, established a recreational closed season for red grouper, gag and black grouper from February 15 to March 15 each year (matching a previously established commercial closed season) beginning with the 2007 season.

An interim rule, implemented January 2009, created temporary measures to address overfishing of gag, as well as red snapper, greater amberjack, and gray triggerfish until more permanent measures could be implemented through Amendments 30A and 30B. The interim rule 1) established a 2-fish gag recreational bag limit within the 5-grouper aggregate bag limit; 2) expanded the recreational closed season for gag to be February 1 through March 31 (the recreational closed season for red and black groupers remained February 15 to March 15); 3) established a 1.32 mp commercial quota for gag; and 4) required operators of federally permitted Gulf commercial and for-hire reef fish vessels to comply with the more restrictive of federal or state reef fish regulations when fishing in state waters for red snapper, greater amberjack, gray triggerfish, and gag. The interim rule was replaced by Amendments 30A and 30B.

Amendment 30A (GMFMC 2008a), implemented August 2008, was developed to stop overfishing of gray triggerfish and greater amberjack. The amendment established ACLs and accountability measures (AMs) for greater amberjack and gray triggerfish. For greater amberjack, it modified the rebuilding plan, increased the recreational minimum size limit, set a zero bag limit for captain and crew of for-hire vessels, and set commercial and recreational quotas. For gray triggerfish, it increased the commercial and recreational minimum size limit and set a commercial quota.

Amendment 30B (GMFMC 2008b), implemented in May 2009, replaced the interim rule regulations with new regulations that 1) defined the gag minimum stock size threshold and optimum yield; 2) set interim allocations of gag and red grouper between recreational and commercial sectors; 3) made adjustments to the gag and red grouper total allowable catches (TACs) to reflect the current status of these stocks; 4) established ACLs and accountability measures (AMs) for the commercial and recreational sectors' harvest of red grouper and gag, and for the commercial harvest of shallow-water grouper; 5) adjusted recreational grouper bag limits and seasons; 6) adjusted commercial grouper quotas; 7) reduced the red grouper commercial minimum size limit; 8) replaced the one-month commercial grouper closed season with a four-month seasonal area closure at the Edges, a 390 square nautical mile area in the dominant gag spawning grounds; 9) eliminated the end date for the Madison-Swanson and Steamboat Lumps marine reserves; and 10) required that vessels with federal commercial or charter reef fish permits comply with more restrictive federal reef fish regulations if state regulations are different when fishing in state waters.

A February 2010 regulatory amendment (GMFMC 2010a) increased the red snapper total allowable catch (TAC) from 5.0 mp to 6.945 mp, which increased the recreational quota from

2.45 mp to 3.403 mp. However, NMFS estimated that in 2009, the recreational sector overharvested its quota by approximately 75%. In recalculating the number of days needed to fill the recreational quota, even with the quota increase, NMFS projected that the 2010 season would need to be shortened to June 1 through July 24, and published notice of those dates prior to the start of the recreational fishing season.

In April 2010, the Deepwater Horizon MC252 deep-sea drilling rig exploded and sank off the coast of Louisiana. Because of the resulting oil spill, approximately one-third of the Gulf was closed to fishing for much of the summer months. The direct loss of fishing opportunities due to the closure, plus the reduction in tourism throughout the coastal Gulf, resulted in a much lower catch than had been projected. After the recreational season closed on July 24, NMFS estimated that 2.3 mp of the 3.4 mp recreational quota remained unharvested (NMFS 2010a). However, due to the fixed October 1 to December 31 closed season, NMFS could not reopen the recreational season without an emergency rule to suspend the closure. Consequently, the Council requested an emergency rule to provide the Regional Administrator with the authority to reopen the recreational red snapper season. After considering various reopening scenarios, the Council requested that the season be reopened for eight consecutive weekends (Friday, Saturday, and Sunday) from October 1 through November 21 (24 fishing days).

In January 2011, the Council submitted a regulatory amendment (GMFMC 2011a) to NMFS to increase the red snapper TAC to 7.185 mp, with a 3.521 mp recreational quota and a 3.664 mp commercial quota. The final rule implemented the increase and established a 48-day recreational red snapper season, running June 1 through July 19.

In August 2009, gag was determined to be both overfished and experiencing overfishing. In response, two interim rules were implemented in 2011 to reduce both commercial and recreational harvest of gag while a rebuilding plan was completed under Amendment 32 (GMFMC 2011c). The first interim rule, effective January 1 through June 30, 2011, reduced the commercial gag quota to 100,000 lbs and closed the recreational fishing season for the first half of 2011 to allow for a fall recreational season. The second interim rule, effective July 1, reset the commercial quota for gag at 430,000 lbs, and set a gag recreational season from September 16 through November 15.

On August 12, 2011, NMFS published an emergency rule that, in part, increased the recreational red snapper quota by 345,000 lbs for the 2011 fishing year and provided the agency with the authority to reopen the recreational red snapper season later in the year, if the recreational quota had not been filled by the July 19 closing date. However, in August of that year, based on headboat data plus charter boat and private recreational landings through June, NMFS calculated that 80% of the recreational quota had been caught. With the addition of July landings data plus Texas Parks and Wildlife Department (TPWD) survey data, NMFS estimated that 4.4 mp to 4.8 mp were caught, well above the 3.865 mp quota. Thus, no unused quota was available to reopen the recreational fishing season.

Amendment 32 (GMFMC 2011c), implemented in March 2012, established a rebuilding plan for gag, including a recreational fishing season of July 1 through October 31 (123 days), a 2-fish gag bag limit, and a 4-fish aggregate grouper bag limit. Florida, seeking a spring recreational season

for its northern counties, set a state waters open season of April 1 through June 30 off Franklin, Wakulla, Jefferson, and Taylor counties. The state waters off these counties were then closed to recreational gag harvest during the rest of the federal season. Consistent regulations were adopted for the remainder of Florida's state waters.

Amendment 35 (GMFMC 2012a), implemented December 2012, modified the rebuilding plan for greater amberjack. It set a stock-ACL of 1,780,000 pounds whole weight (ww), divided into a commercial ACL of 481,000 pounds ww and a recreational ACL of 1,299,000 pounds ww. The ACT was set at 1,539,000 pounds ww divided into a commercial ACT of 409,000 pounds ww and a recreational ACT of 1,130,000 pounds ww. A greater amberjack commercial trip limit of 2,000 pounds was established, and the existing closed seasons of June 1 – July 31 for the recreational sector and March 1 – May 31 for the commercial sector were retained.

On May 30, 2012, NMFS published a final rule to increase the commercial and recreational quotas and establish the 2012 recreational red snapper fishing season. The recreational season opened on June 1 through July 11. However, the north-central Gulf experienced extended severe weather during the first 26 days of the 2012 recreational red snapper fishing season, including Tropical Storm Debby. Because of the severe tropical weather, NMFS extended the season by six days and closed on July 17.

A framework action, implemented May 29, 2013 (GMFMC 2013a), increased the 2013 commercial red snapper quota from 4.121 mp to 4.315 mp ww and the recreational red snapper quota from 3.959 mp to 4.145 mp ww. The framework action considered a reduction in the bag limit to either 1 fish per person or 1 fish per 2 persons per day, but left the limit at the status quo 2-fish per person per day. Initially, the seasons were state specific based on the Emergency Rule published in March 2013. On May 31, 2013, the U.S. District Court in Brownsville, Texas vacated the emergency rule. As a result of this Court decision, a Gulf-wide federal recreational red snapper season was established from June 1 through June 28. Louisiana established its own state recreational red snapper season as weekends only (Friday through Sunday plus Memorial Day and Labor Day) from March 23 through September 29, with a 3-fish bag limit. During the federal recreational season, Louisiana adopted the same 7-days per week, 2-fish bag limit regulations as in federal waters.

A framework action, implemented July 5, 2013 (GMFMC 2013b), established the 2013 gag recreational fishing season that opens on July 1 and closes on December 3, 2013. The rule also limits the geographical extent of the February 1 through March 31 shallow-water grouper closure to waters seaward of a line approximating 20 fathoms. Beyond 20 fathoms, recreational grouper harvest is open year round for all species except gag and goliath grouper. Florida again retained a regional season for its state waters off the northern counties of Franklin, Wakulla, Jefferson and Taylor from April 1 through June 30.

A framework action, implemented October 1, 2013 (GMFMC 2013c), increased the 2013 commercial red snapper quota from 4.315 mp to 5.610 mp ww and the recreational red snapper quota from 4.145 mp to 5.390 mp ww. Commercial fishermen received additional allocation in their IFQ accounts proportional to their IFQ shares, and the recreational red snapper season was

re-opened from October 1 through October 14 to allow the additional quota to be harvested. Florida re-opened its state waters from October 1 through October 21.

CHAPTER 2. MANAGEMENT ALTERNATIVES

2.1 Action 1 – Revise For-hire Permit Condition for Fishing in State Waters

Alternative 1: No action – Retain current federal regulations for management of recreational reef fish in the Gulf Exclusive Economic Zone (EEZ). If federal regulations for Gulf reef fish are more restrictive than state regulations, a person aboard a charter vessel or headboat for which a charter/headboat permit for Gulf reef fish has been issued must comply with such federal regulations regardless of where the fish are harvested.

Alternative 2: Rescind the provision requiring vessels with a Gulf charter/headboat permit for reef fish to comply with federal recreational reef fish regulations, if more restrictive than state regulations, when fishing in state waters for the following stocks:

Option a: red snapper

Option b: gag

Preferred Alternative 3: Rescind the provision requiring vessels with a Gulf charter/headboat permit for reef fish to comply with federal recreational reef fish regulations, if more restrictive than state regulations, when fishing in state waters

Alternative 4: Extend the provision requiring vessels to comply with federal recreational reef fish regulations, if more restrictive than state regulations, when fishing in state waters to private recreational vessels by establishing a private recreational vessel permit to fish for reef fish in the EEZ. As a condition of the permit, if federal regulations for Gulf reef fish are more restrictive than state regulations, a person aboard a vessel for which a private recreational permit for Gulf reef fish has been issued must comply with such federal regulations regardless of where the fish are harvested.

Discussion:

Alternative 1 retains the existing permit condition on federally permitted Gulf reef fish charter and headboats. This regulation was implemented under Amendment 30B as Action 13, Federal Regulatory Compliance. The concern expressed in Amendment 30B was that if states do not establish consistent regulations, projected reductions in harvest and fishing mortality may not occur, compromising the Gulf of Mexico Fishery Management Council's (Council's) ability to end overfishing and rebuild overfished reef fish stocks. Despite the elimination of out-of-season recreational harvest from federally permitted for-hire vessels, non-federally permitted for-hire vessels and private recreational vessels have been able to continue to land red snapper caught in state waters during extended state seasons for those states that have inconsistent seasons. Similar situations could occur for other reef fish in the event of federal season closures. Except for Alabama, a lag time could occur between implementation of a federal quota closure and a corresponding state closure, allowing additional state water harvest. Alabama has a rule that closes state waters to recreational harvest of a reef fish species when federal waters are closed (AL Administrative Code 220-3-.46), but other states require that action be taken by the

appropriate commission or department, which could result in a lag time before corresponding state closures are implemented. This lag allows private and non-federally permitted for-hire vessels to continue fishing regardless of the status of the 30B permit provision. Consequently, National Marine Fisheries Service (NMFS) has had to reduce the length of the federal red snapper recreational season to compensate for this harvest. The 30B permit provision had been expected to encourage states to adopt consistent regulations, but the opposite has happened, with Florida and Louisiana proposing or adopting progressively longer recreational red snapper seasons in state waters in 2013 and 2014 and Texas maintaining its year-round state season.

Alternative 2 addresses specific stocks subject to recreational quota closures for which some states have inconsistent or extended state seasons. **Option a** rescinds the permit condition for red snapper. Two states (Texas and Louisiana) have ongoing inconsistent state season and bag limit regulations, and Florida has occasionally adopted an inconsistent season. Texas also has a smaller state minimum size limit (15 inches total length state vs. 16 inches total length federal). This option targets the specific problem of inconsistent red snapper regulations. It will allow federally permitted for-hire vessels to participate in red snapper fishing in state waters with extended seasons when all other recreational vessels in their state are allowed to do so, but at the same time, result in shorter Gulf-wide federal seasons for red snapper. For vessels operating off states that adopt compatible seasons or in areas that have few or no red snapper in state waters, **Option a** will result in fewer red snapper fishing days. For vessels from states with inconsistent seasons and the availability of red snapper in state waters, the shorter federal season will be offset by increased fishing days in state waters. The 2014 red snapper season, which has been announced as a 40-day season, is estimated to be 4-9 days shorter if the 30B permit provision is rescinded (see Appendix C). The length of the 2014 federal season for recreational red snapper assumes that the states will maintain the same state season regulations as in 2013, with the exception of Florida which was assumed to adopt a consistent 40-day season. The Florida FWC, which established a 44-day season in Florida's state waters in 2013, recently proposed a 52-day season for 2014. If implemented, this proposed season increase will likely require an adjustment to the federal season regardless of what action is taken in this framework action and result in an even shorter federal season than estimated above.

Alternative 2, Option b rescinds the permit condition for gag. Most of the recreational gag harvests occurs off of Florida and Alabama. Alabama currently has consistent state regulations. In Florida, anglers in four northern counties (Franklin, Wakulla, Jefferson and Taylor) can harvest gag from state waters during April 1 through June 30. During the rest of the year, including the federal open season for gag, recreational harvest of gag from these counties is closed. Florida has asked the Council to develop regional management for gag, and the Council has agreed to consider it following the 2014 gag benchmark assessment. Because Florida's regional gag regulations create both less restrictive and more restrictive regulations for the affected region at different times of the year, the net effect on recreational gag harvest is unknown. However, based on NMFS federal permit records, few for-hire vessels operate in the four-county area of Florida; thus, even though most of the recreational gag harvest occurs off Florida, rescinding the permit provision for gag would likely have minimal impacts on federally permitted charter and headboats.

Preferred Alternative 3 rescinds the permit condition for all reef fish. This would be the simplest approach. This alternative avoids any conflicts between state regulations that allow fishing in state waters and the federal permit provision that prohibits fishing in those same waters by federally permitted vessels by eliminating the federal restriction. Within each state that has extended seasons, it reduces user conflicts by allowing equal access to the reef fish resource in state waters by all recreational vessels. However, because the recreational season in federal waters would likely be reduced for stocks subject to quota closures, this would result in less fishing days for vessels fishing off states with consistent regulations, which could increase conflicts between recreational fishermen from states with consistent regulations vs. those with inconsistent regulations. Under this alternative, restrictions would be eased not only for red snapper and gag, but also for other species that are overfished (greater amberjack, gray triggerfish), which are those in greatest need of effective management to rebuild. One possible concern with this alternative is that other species could become subject to inconsistent regulations in the future. Specifically, greater amberjack and gray triggerfish are both classified as overfished and are subject to recreational quota closures and post-season overage adjustments. In-season quota closures in state waters could be slightly impacted even off states with consistent regulations. Alabama has a rule that closes state waters to recreational harvest of a reef fish species when federal waters are closed (AL Administrative Code 220-3-.46), but other states require that action be taken by the appropriate commission or department, which could result in a lag time before corresponding state closures are implemented. During this lag time, or if states do not implement seasonal closures once quotas or ACLs are met and federal waters are closed, then the additional harvest of reef fish in state waters that could occur from private and non-federally permitted for-hire vessels could be exacerbated by the addition of federally permitted for-hire vessels if the 30B permit provision is rescinded.

Under **Alternative 2** and **Preferred Alternative 3** an additional consideration is that vessels with both a federal commercial vessel permit for Gulf reef fish and a federal charter/headboat permit for Gulf reef fish (dual-permitted vessels) could still be required to adhere to the more restrictive of federal or state regulations when fishing in state waters. Even if the 30B permit provision is revised or rescinded for the for-hire vessel permit, a similar provision exists for the commercial reef fish vessel permit. The regulations (622.20(a)(1) and 622.20(b)(3)) address the vessel for which a specific permit has been issued, but do not address the specific fishing activity (commercial fishing or for-hire fishing). Consequently, the condition attached to the commercial permit could be interpreted to apply to all fishing by the vessel, including recreational fishing under charter.

During Council deliberations, there were no specific discussions of dual-permitted vessels and how revising or rescinding this restriction under **Alternative 2** and **Preferred Alternative 3** would affect them. However, Council deliberations inferred the permit modification should apply to all federally permitted for-hire vessels. Analyses presented to the Council for their consideration in approving this action for review by the Secretary of Commerce treated dual-permitted vessels as vessels to be included in the rescission. Thus, under **Alternative 2** and **Preferred Alternative 3**, this framework action considers that it is the intent of the Council that dual-permitted vessels be allowed to fish recreationally in state waters under state regulations when state waters are open. The prohibition on commercial harvest of reef fish in state waters when the EEZ is closed to commercial fishing would continue.

Alternative 4 retains the existing permit condition on federally permitted charter and headboats, but would apply equivalent restrictions to all vessels harvesting reef fish recreationally. In order to accomplish this, the alternative would establish a federal private recreational vessel permit with the same permit condition that exists for charter and headboats. In the past, a full plan amendment was needed to establish a permit. However, the generic framework procedure adopted in 2012 through the Generic ACL/AM Amendment (and modified in 2013 under Amendment 38) explicitly allows permitting requirements to be implemented under the framework procedure. Unlike the other alternatives, this alternative would be expected to lengthen the federal season for overfished stocks, although in the case of red snapper, it is estimated to be a very short extension (no more than two days; Appendix C) Establishing a federal private recreational permit would create additional benefits by allowing a more accurate enumeration of participation in offshore recreational reef fish fishing, and providing a more focused framework for surveying offshore reef fish effort. This alternative eliminates conflicts between recreational user groups within a state and between states. However, it would exacerbate rather than reduce conflicts between federal and state regulations concerning allowable fishing in state waters. In addition, adding the permit provision increases administrative paperwork.

CHAPTER 3. AFFECTED ENVIRONMENT

3.1 Description of the Physical Environment

The Gulf of Mexico (Gulf) has a total area of approximately 600,000 square miles (1.5 million km²), including state waters (Gore 1992). It is a semi-enclosed, oceanic basin connected to the Atlantic Ocean by the Straits of Florida and to the Caribbean Sea by the Yucatan Channel (Figure 3.1.1). Oceanographic conditions are affected by the Loop Current, discharge of freshwater into the northern Gulf, and a semi-permanent, anti-cyclonic gyre in the western Gulf. The Gulf includes both temperate and tropical waters (McEachran and Fechhelm 2005). Gulf water temperatures range from 54° F to 84° F (12° C to 29° C) depending on time of year and depth of water. Mean annual sea surface temperatures ranged from 73 ° F through 83° F (23-28° C) including bays and bayous (Figure 3.2.1) between 1982 and 2009, according to satellite-derived measurements (NODC 2012: <http://accession.nodc.noaa.gov/0072888>). In general, mean sea surface temperature increases from north to south with large seasonal variations in shallow waters.

The physical environment for Gulf reef fish, including red snapper, is also detailed in the environmental impact statement (EIS) for the Generic Essential Fish Habitat (EFH) Amendment and the Generic Annual Catch Limits/Accountability Measures (ACL/AM) Amendment (refer to GMFMC 2004b; GMFMC 2011b) and are incorporated here by reference.

In the Gulf, fish habitat for adult red snapper consists of submarine gullies and depressions; coral reefs, rock outcroppings, and gravel bottoms; oilrigs; and other artificial structures (GMFMC 2004a). Detailed information pertaining to the closures and preserves is provided in the February 2010 Regulatory Amendment (GMFMC 2010) and is incorporated here by reference.

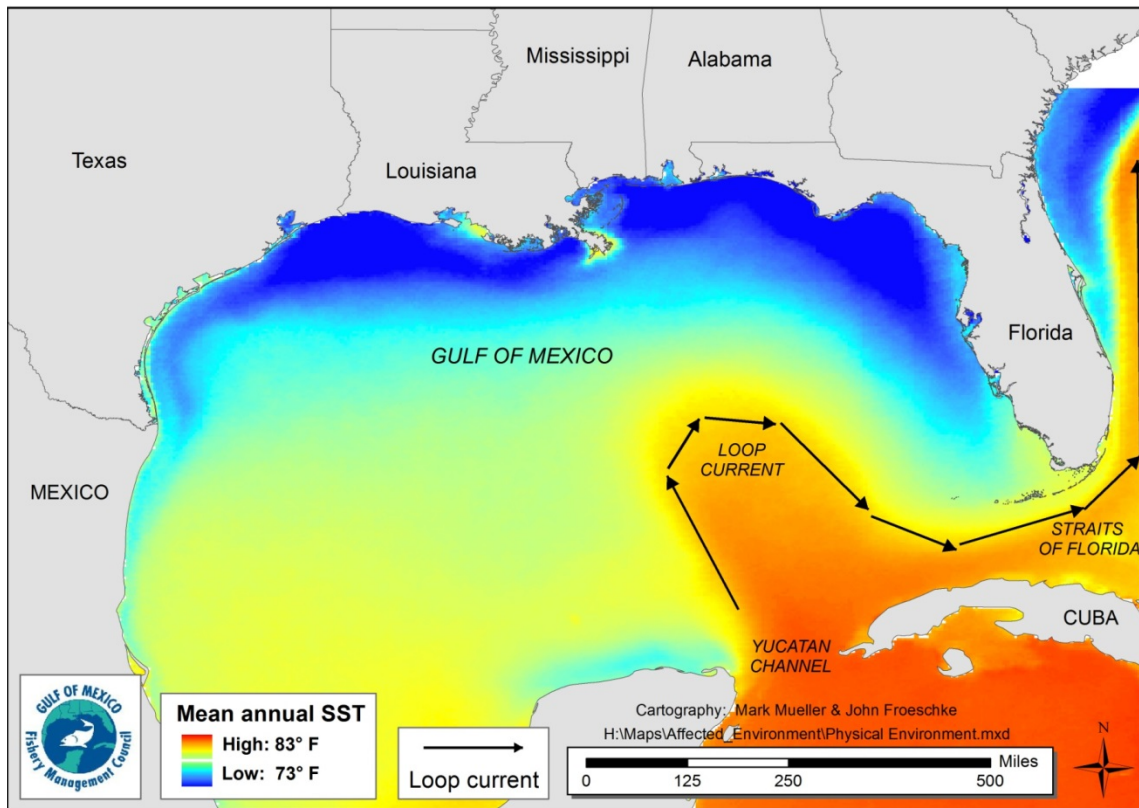


Figure 3.1.1. Physical environment of the Gulf including major feature names and mean annual sea surface temperature as derived from the Advanced Very High Resolution Radiometer Pathfinder Version 5 sea surface temperature data set (<http://accession.nodc.noaa.gov/0072888>)

3.2 Description of the Biological/Ecological Environment

The biological environment of the Gulf, including the species addressed in this amendment, is described in detail in the final Environmental Impact Statement (EIS) for the Generic EFH Amendment (GMFMC 2004b) and is incorporated here by reference.

Definition of Overfishing

In January 2012, the Generic ACL/AM Amendment (GMFMC 2011b) became effective. One of the provisions in this amendment was to redefine overfishing. In years when there is a stock assessment, overfishing is defined as the fishing mortality rate exceeding the maximum fishing mortality threshold. In years when there is no stock assessment, overfishing is defined as the catch exceeding the OFL. Note that, because the overfishing threshold is now re-evaluated each year instead of only in years when there is a stock assessment, this status for red snapper, gag, and other reef fish could change on a year-to-year basis.

Red Snapper Life History and Biology

Red snapper demonstrate the typical reef fish life history pattern (Table 3.2.1). Eggs and larvae are pelagic while juveniles are found associated with bottom features or over barren bottom. Spawning occurs over firm sand bottom with little relief away from reefs during the summer and fall. Adult females mature as early as two years and most are mature by four years (Schirripa and Legault 1999). Red snapper have been aged up to 57 years. Until recently, most caught by the directed fishery were 2- to 4-years old (Wilson and Nieland 2001), but a recently completed stock assessment suggests that the age and size of red snapper in the directed fishery has increased in recent years (SEDAR 31 2013). A more complete description of red snapper life history can be found in the EIS for the Generic EFH Amendment (GMFMC 2004b).

Status of the Red Snapper Stock

Southeast Data Assessment and Review (SEDAR) 31 Benchmark Stock Assessment

Commercial harvest of red snapper from the Gulf began in the mid-1800s (Shipp 2001). In the 1930s, party boats built exclusively for recreational fishing began to appear (Chester 2001). The first stock assessment conducted by National Marine Fisheries Service (NMFS) in 1986 suggested that the stock was in decline (Parrack and McLellan 1986) and since 1988 (Goodyear 1988) the stock biomass has been found to be below threshold levels.

The most recent red snapper stock assessment was completed in 2013 (SEDAR 31 2013). The primary assessment model selected for the Gulf red snapper stock evaluation assessment was Stock Synthesis (Methot 2010). Stock Synthesis is an integrated statistical catch-at-age model which is widely used for stock assessments in the United States and throughout the world. The results of the SEDAR 31 assessment, including an assessment addendum that was prepared after a review of the SEDAR Assessment Panel Report by the SEDAR Review Panel, was presented to the Scientific and Statistical Committee (SSC) in May 2013. Under the base model, it was estimated that the red snapper stock has been overfished since the 1960s.

Although the red snapper stock continues to recover, spawning stock biomass was estimated to remain below both the minimum stock size threshold (MSST) and the spawning stock size associated with maximum sustainable yield proxy of a biomass level corresponding to a spawning stock biomass of 26% spawning potential ratio ($SSB_{26\% SPR}$). Therefore, the SSC concluded that the stock remains overfished. With respect to overfishing, the current fishing mortality rate (geometric mean of 2009-2011) was estimated to be below both $F_{26\% SPR}$ proxy. Therefore, the SSC concluded the stock is not currently experiencing overfishing.

Even though the red snapper recreational harvest exceeded its quota in 2012, the total catch (recreational and commercial combined) remained below the OFL. Therefore, as of 2012, overfishing is not occurring in the red snapper stock.

A red snapper update assessment scheduled for 2014 is expected to re-evaluate the acceptable biological catch (ABC) for 2015 and beyond.

Gag Life History and Biology

Gag are found throughout the Gulf of Mexico, but are most predominant in the eastern Gulf. The following information is taken from the SEDAR 33 Data Workshop report (SEDAR 33 Data Workshop 2013), which contains more detailed information on gag life history and biology. Although gag in U.S. waters of the Gulf of Mexico are considered a single stock, genetic studies suggest that a very small number of larvae may be provided to the west Florida shelf from the Campeche banks (June 2010). Gag spawn from mid-December to mid-May with peak spawning occurring January – March. Larval fish have about a 45-day pelagic period. Upon settlement, seagrass meadows are the important habitat for juvenile gag (Coleman et al. 1996), but where seagrass beds are scarce juvenile gag are reported to utilize oyster reefs (Adamski et al. 2012) or mangrove habitat (Casey et al. 2007). Upon leaving the seagrass meadows, gag will associate with patchy hard bottoms, rock outcrops, and ledges (Lindberg et al. 2006). Gag are protogynous hermaphrodites (female first, changing to male later in life). The age and size at 50% maturity is estimated at 3.5 years and 21 inches fork length (FL), and the age and size at 50% transition to males is estimated at 10.7 years and 40" FL (SEDAR 33 Data Workshop 2013). Both size of maturity and size of transition appear to have decreased slightly in recent years.

Status of the Gag Stock

SEDAR 10 Benchmark Stock Assessment and 2009 Update Assessment

The following summary is based on the most recently completed Gulf gag stock assessments, SEDAR 10 (2006) benchmark assessment and the 2009 Update Stock Assessment (SEDAR 10 Update 2009). A new benchmark assessment is currently being conducted (SEDAR 33) and is expected to be delivered to the Gulf of Mexico Fishery Management Council (Council) by June 2014. For SEDAR 10 and the SEDAR 10 update, the Council's SSC reviewed several model runs and accepted the model run titled, "Red Tide with Increasing Catchability." This model run allowed the natural mortality rate for 2005, a year when there was an extensive red tide event along the West Florida Shelf, to adjust above the base natural mortality rate. The best-fit result indicated that an additional mortality for gag corresponding to 18% of the stock occurred in 2005². Based on the resultant projections, the SSC recommended that the acceptable biological catch be set at a yield when fishing at the rate that would allow rebuilding within ten years ($F_{REBUILD}$) to a spawning stock biomass level that could produce maximum yield per recruit (SSB_{MAX}). This yield was 1.17 million pounds (MP) gutted weight (GW) for 2011 and 1.64 MP GW for 2012, respectively.

In the course of developing management alternatives for gag, potential inconsistencies in estimates of commercial and recreational discards were discovered. One difference was preliminary estimates of commercial gag discards were two orders of magnitude greater when

² E-mail from Brian Linton (NMFS Southeast Fisheries Science Center) to Steven Atran (Gulf Council staff) dated July 7, 2009.

estimated using reef fish observer data³ rather than from Trip Interview Program (TIP) information. Also, the size and age distributions computed for recreational discards in the 2009 update stock assessment indicated most discards were close to the minimum size limit in more recent years, but tagging and observer data indicated a broader size range for discarded fish. The Council discussed these discrepancies at their August 2010 meeting and it was agreed that another review of the gag assessment was needed.

The SEDAR update assessment review panel met in December 2010 and recommended two changes be made to the original assessment reanalyzed. The first was the size distribution of released fish in the charter and private recreational fisheries was revised to provide a better estimate of the size distribution. In the original reanalysis, the size distributions were truncated at just below the minimum size limit (i.e. just sublegal sized fish). The revisions were made by updating Mote Marine Laboratory data already used in the analysis with 2006-2007 data, and by applying the headboat observer data from 2000-2008 to the charter boat sector. In addition, landed undersized gag were excluded from the analyses to avoid biasing the size distribution. The results of the reanalysis produced higher estimates of the number of discards in the commercial handline fishery, but lower estimates of discards in the commercial reef fish longline sector. The end result was that the yield streams for the overfishing limit (OFL), $F_{REBUILD}$, and optimum yield increased slightly for each year, but the stock remained overfished and undergoing overfishing. Based on these results, the SSC recommended an acceptable biological catch for gag for 2011 to be 1.58 MP GW (based on $F_{REBUILD}$ to SSB_{MAX}). The SSC also recommended the 2011 OFL for gag to be 1.67 MP GW (based on yield when fishing at maximum yield-per-recruit, F_{MAX}).

Definition of Overfishing

In January 2012, the Generic ACL/AM Amendment (GMFMC 2011b) became effective. One of the provisions in this amendment was to redefine overfishing. In years when there is a stock assessment, overfishing is defined as the fishing mortality rate exceeding the maximum fishing mortality threshold. In years when there is no stock assessment, overfishing is defined as the catch exceeding the OFL. Even though the red snapper recreational harvest exceeded its quota in 2012, the total catch (recreational and commercial combined) remained below the OFL. Therefore, as of 2012, overfishing is no longer occurring in the red snapper stock. Note that, because the overfishing threshold is now re-evaluated each year instead of only in years when there is a stock assessment, this status for both red snapper and gag could change on a year-to-year basis.

General Information on Reef Fish Species

The National Ocean Service collaborated with NMFS and the Council to develop distributions of reef fish (and other species) in the Gulf (SEA 1998). The National Ocean Service obtained fishery-independent data sets for the Gulf, including Southeast Area Monitoring and Assessment Program (SEAMAP), and state trawl surveys. Data from the Estuarine Living Marine Resources

³ SEFSC presentation at the August 2010 Council meeting titled “2009 Gulf of Mexico Gag Update Assessment – Commercial Dead Discards”

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, larvae, and juvenile) and month for five seasonal salinity zones (0-0.5, 0.5-5, 5-15, 15-25, and >25 parts per thousand). National Ocean Service staff analyzed these data to determine relative abundance of the mapped species by estuary, salinity zone, and month. For some species not in the Estuarine Living Marine Resources Program 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 life history stages are summarized in Table 3.3.1 and can be found in more detail in GMFMC (2004b). 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 (<328 feet; <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. Juvenile red snapper are common on mud bottoms in the northern Gulf, particularly from Texas to 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 fishery management plan (FMP) for Corals and Coral Reefs (GMFMC and SAFMC 1982).

Table 3.2.1. Summary of habitat utilization by life history stage for species in the Reef Fish FMP.

Common name	Eggs	Larvae	Early Juveniles	Late juveniles	Adults	Spawning adults
Red Snapper	Pelagic	Pelagic	Hard bottoms, Sand/ shell bottoms, Soft bottoms	Hard bottoms, Sand/ shell bottoms, Soft bottoms	Hard bottoms, Reefs	Sand/ shell bottoms
Queen Snapper	Pelagic	Pelagic	Unknown	Unknown	Hard bottoms	
Mutton Snapper	Reefs	Reefs	Mangroves, Reefs, SAV, Emergent marshes	Mangroves, Reefs, SAV, Emergent marshes	Reefs, SAV	Shoals/ Banks, Shelf edge/slope
Blackfin Snapper	Pelagic		Hard bottoms	Hard bottoms	Hard bottoms, Shelf edge/slope	Hard bottoms, Shelf edge/slope
Cubera Snapper	Pelagic		Mangroves, Emergent marshes, SAV	Mangroves, Emergent marshes, SAV	Mangroves, Reefs	Reefs
Gray Snapper	Pelagic, Reefs	Pelagic, Reefs	Mangroves, Emergent marshes, Seagrasses	Mangroves, Emergent marshes, SAV	Emergent marshes, Hard bottoms, Reefs, Sand/ shell bottoms, Soft bottoms	
Lane Snapper	Pelagic		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
Silk Snapper	Unknown	Unknown	Unknown	Unknown	Shelf edge	
Yellowtail Snapper	Pelagic		Mangroves, SAV, Soft bottoms	Reefs	Hard bottoms, Reefs, Shoals/ Banks	
Wenchman	Pelagic	Pelagic			Hard bottoms, Shelf edge/slope	Shelf edge/slope
Vermilion Snapper	Pelagic		Hard bottoms, Reefs	Hard bottoms, Reefs	Hard bottoms, Reefs	

Common name	Eggs	Larvae	Early Juveniles	Late juveniles	Adults	Spawning adults
Gray Triggerfish	Reefs	Drift algae, <i>Sargassum</i>	Drift algae, <i>Sargassum</i>	Drift algae, Reefs, <i>Sargassum</i>	Reefs, Sand/ shell bottoms	Reefs, Sand/ shell bottoms
Greater Amberjack	Pelagic	Pelagic	Drift algae	Drift algae	Pelagic, Reefs	Pelagic
Lesser Amberjack			Drift algae	Drift algae	Hard bottoms	Hard bottoms
Almaco Jack	Pelagic		Drift algae	Drift algae	Pelagic	Pelagic
Banded Rudderfish		Pelagic	Drift algae	Drift algae	Pelagic	Pelagic
Hogfish			SAV	SAV	Hard bottoms, Reefs	Reefs
Blueline Tilefish	Pelagic	Pelagic			Hard bottoms, Sand/ shell bottoms, Shelf edge/slope, Soft bottoms	
Tilefish (golden)	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	
Goldface Tilefish	Unknown					
Speckled Hind	Pelagic	Pelagic			Hard bottoms, Reefs	Shelf edge/slope
Yellowedge Grouper	Pelagic	Pelagic		Hard bottoms	Hard bottoms	
Atlantic Goliath Grouper	Pelagic	Pelagic	Mangroves, Reefs, SAV	Hard bottoms, Mangroves, Reefs, SAV	Hard bottoms, Shoals/ Banks, Reefs	Reefs, Hard bottoms
Red Grouper	Pelagic	Pelagic	Hard bottoms, Reefs, SAV	Hard bottoms, Reefs	Hard bottoms, Reefs	

Common name	Eggs	Larvae	Early Juveniles	Late juveniles	Adults	Spawning adults
Warsaw Grouper	Pelagic	Pelagic		Reefs	Hard bottoms, Shelf edge/slope	
Snowy Grouper	Pelagic	Pelagic	Reefs	Reefs	Hard bottoms, Reefs, Shelf edge/slope	
Black Grouper	Pelagic	Pelagic	SAV	Hard bottoms, Reefs	Hard bottoms, Mangroves, Reefs	
Yellowmouth Grouper	Pelagic	Pelagic	Mangroves	Mangroves, Reefs	Hard bottoms, Reefs	
Gag	Pelagic	Pelagic	SAV	Hard bottoms, Reefs, SAV	Hard bottoms, Reefs	
Scamp	Pelagic	Pelagic	Hard bottoms, Mangroves, Reefs	Hard bottoms, Mangroves, Reefs	Hard bottoms, Reefs	Reefs, Shelf edge/slope
Yellowfin Grouper			SAV	Hard bottoms, SAV	Hard bottoms, Reefs	Hard bottoms

Source: Adapted from Table 3.2.7 in the final draft of the EIS from the Generic EFH Amendment (GMFMC 2004b) and consolidated in this document.

Status of Reef Fish Stocks

The Reef Fish FMP currently encompasses 31 species (Table 3.2.2). Eleven other species were removed from the FMP in 2012 through the Generic ACL/AM Amendment (GMFMC 2011b). Stock assessments and stock assessment reviews have been conducted for 13 species and can be found on the Council (www.gulfcouncil.org) and SEDAR (www.sefsc.noaa.gov/sedar) websites. The assessed species are:

- Red Snapper (SEDAR 7 2005; SEDAR 7 Update 2009; SEDAR 31 2013)
- Vermilion Snapper (Porch and Cass-Calay 2001; SEDAR 9 2006a; SEDAR 9 Update 2011a)
- Yellowtail Snapper (Muller et al. 2003; SEDAR 3 2003; O'Hop et al. 2012)
- Mutton Snapper (SEDAR 15A 2008)
- Gray Triggerfish (Valle et al. 2001; SEDAR 9 2006b; SEDAR 9 Update 2011b)
- Greater Amberjack (Turner et al. 2000; SEDAR 9 2006c; SEDAR 9 Update 2010)
- Hogfish (Ault et al. 2003; SEDAR 6 2004a)
- Red Grouper (NMFS 2002; SEDAR 12 2007; SEDAR 12 Update 2009)
- Gag (Turner et al. 2001; SEDAR 10 2006; SEDAR 10 Update 2009)
- Black Grouper (SEDAR 19 2010)
- Yellowedge Grouper (Cass-Calay and Bahnick 2002; SEDAR 22 2011a)
- Tilefish (Golden) (SEDAR 22 2011b)
- Atlantic Goliath Grouper (Porch et al. 2003; SEDAR 6 2004b; SEDAR 23 2011)

The NMFS Office of Sustainable Fisheries updates its Status of U.S. Fisheries Report to Congress on a quarterly basis utilizing the most current stock assessment information. The most recent update can be found at: (<http://www.nmfs.noaa.gov/sfa/statusoffisheries/SOSmain.htm>). The status of both assessed and unassessed stocks as of the writing of this report is shown in Table 3.2.2.

Table 3.2.2. Species of the Reef Fish FMP grouped by family.

Common Name	Scientific Name	Stock Status
Family Balistidae – Triggerfishes		
Gray Triggerfish	<i>Balistes capriscus</i>	Overfished, no overfishing
Family Carangidae – Jacks		
Greater Amberjack	<i>Seriola dumerili</i>	Overfished, no overfishing
Lesser Amberjack	<i>Seriola fasciata</i>	Unknown
Almaco Jack	<i>Seriola rivoliana</i>	Unknown
Banded Rudderfish	<i>Seriola zonata</i>	Unknown
Family Labridae - Wrasses		
Hogfish	<i>Lachnolaimus maximus</i>	Unknown
Family Malacanthidae - Tilefishes		
Tilefish (Golden)	<i>Lopholatilus chamaeleonticeps</i>	Not overfished, no overfishing
Blueline Tilefish	<i>Caulolatilus microps</i>	Unknown
Goldface Tilefish	<i>Caulolatilus chrysops</i>	Unknown
Family Serranidae - Groupers		
Gag	<i>Mycteroperca microlepis</i>	Overfished, no overfishing
Red Grouper	<i>Epinephelus morio</i>	Not overfished, no overfishing
Scamp	<i>Mycteroperca phenax</i>	Unknown
Black Grouper	<i>Mycteroperca bonaci</i>	Not overfished, no overfishing
Yellowedge Grouper	<i>*Hyporthodus flavolimbatus</i>	Not overfished, no overfishing
Snowy Grouper	<i>*Hyporthodus niveatus</i>	Unknown
Speckled Hind	<i>Epinephelus drummondhayi</i>	Unknown
Yellowmouth Grouper	<i>Mycteroperca interstitialis</i>	Unknown
Yellowfin Grouper	<i>Mycteroperca venenosa</i>	Unknown
Warsaw Grouper	<i>*Hyporthodus nigritus</i>	Unknown
**Atlantic Goliath Grouper	<i>Epinephelus itajara</i>	Unknown
Family Lutjanidae - Snappers		
Queen Snapper	<i>Etelis oculatus</i>	Unknown
Mutton Snapper	<i>Lutjanus analis</i>	Not overfished, no overfishing
Blackfin Snapper	<i>Lutjanus buccanella</i>	Unknown
Red Snapper	<i>Lutjanus campechanus</i>	Overfished, no overfishing
Cubera Snapper	<i>Lutjanus cyanopterus</i>	Unknown
Gray Snapper	<i>Lutjanus griseus</i>	Unknown
Lane Snapper	<i>Lutjanus synagris</i>	Unknown
Silk Snapper	<i>Lutjanus vivanus</i>	Unknown
Yellowtail Snapper	<i>Ocyurus chrysurus</i>	Not overfished, no overfishing
Vermilion Snapper	<i>Rhomboplites aurorubens</i>	Not overfished, no overfishing
Wenchman	<i>Pristipomoides aquilonaris</i>	Unknown

Notes: * In 2013 the genus for yellowedge grouper, snowy grouper, and warsaw grouper was changed by the American Fisheries Society from *Epinephelus* to *Hyporthodus* (American Fisheries Society 2013).

**Atlantic goliath grouper is a protected grouper and benchmarks do not reflect appropriate stock dynamics. In 2013 the common name was changed from goliath grouper to Atlantic

goliath grouper by the American Fisheries Society to differentiate from the Pacific goliath grouper, a newly named species (American Fisheries Society 2013).

Protected Species

There are 29 different species of marine mammals that may occur in the Gulf. All 29 species are protected under the Marine Mammal Protection Act and seven are also listed as endangered under the Endangered Species Act (ESA) (i.e., sperm, sei, fin, blue, humpback, and North Atlantic right whales and the West Indian manatee). Other species protected under the ESA occurring in the Gulf include five sea turtle species (Kemp's ridley, loggerhead, green, leatherback, and hawksbill); two fish species (Gulf sturgeon and smalltooth sawfish), and two coral species (elkhorn coral and staghorn coral). Information on the distribution, biology, and abundance of these protected species in the Gulf is included in the final EIS to the Generic EFH Amendment (GMFMC 2004b) and the February 2005, October 2009, and September 2011 ESA biological opinions on the reef fish fishery (NMFS 2005; NMFS 2009; NMFS 2011a). Marine Mammal Stock Assessment Reports and additional information are also available on the NMFS Office of Protected Species website: <http://www.nmfs.noaa.gov/pr/species/>.

The Gulf reef fish fishery is classified in the Marine Mammal Protection Act 2013 List of Fisheries as a Category III fishery (78 FR 53336, August 29, 2013). This classification indicates the annual mortality and serious injury of a marine mammal stock resulting from any fishery is less than or equal to 1% of the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population. Dolphins are the only species documented as interacting with these fisheries. Bottlenose dolphins prey upon on the bait, catch, and/or released discards of fish from the reef fish fishery. They are also a common predator around reef fish vessels, feeding on the discards.

All five species of sea turtles are adversely affected by the Gulf reef fish fishery. Incidental captures are relatively infrequent, but occur in all commercial and recreational hook-and-line and longline components of the reef fish fishery. Captured sea turtles can be released alive or can be found dead upon retrieval of the gear as a result of forced submergence. Sea turtles released alive may later succumb to injuries sustained at the time of capture or from exacerbated trauma from fishing hooks or lines that were ingested, entangled, or otherwise still attached when they were released. Sea turtle release gear and handling protocols are required in the commercial and for-hire reef fish fisheries to minimize post-release mortality.

Smalltooth sawfish are also affected by the Gulf reef fish fishery, but to a much lesser extent. Smalltooth sawfish primarily occur in the Gulf off peninsular Florida. Incidental captures in the commercial and recreational hook-and-line components of the reef fish fishery are rare events, with only eight smalltooth sawfish estimated to be incidentally caught annually, and none are expected to result in mortality (NMFS 2005). Fishermen in this fishery are required to follow smalltooth sawfish safe handling guidelines. The long, toothed rostrum of the smalltooth sawfish causes this species to be particularly vulnerable to entanglement in fishing gear.

On September 30, 2011, the Protected Resources Division released a biological opinion, which concluded that the continued operation of the Gulf reef fish fishery is not likely to jeopardize the continued existence of sea turtles (loggerhead, Kemp's ridley, green, hawksbill, and leatherback) or smalltooth sawfish (NMFS 2011a). An incidental take statement was issued specifying the amount and extent of anticipated take, along with reasonable and prudent measures and associated terms and conditions deemed necessary and appropriate to minimize the impact of these takes. The Council addressed measures to reduce take in the reef fish fishery's longline component in Amendment 31 (GMFMC 2009). Other listed species and designated critical habitat in the Gulf were determined not likely to be adversely affected.

On December 7, 2012, NMFS published a proposed rule to list 66 coral species under the ESA and reclassify *Acropora* from threatened to endangered (77 FR 73220). In a memo dated February 13, 2013, NMFS determined the reef fish fishery was not likely to adversely affect *Acropora* because of where the fishery operates, the types of gear used in the fishery, and that other regulations protect *Acropora* where they are most likely to occur. None of the new information regarding population level concerns would affect those determinations.

On July 28, 2013, NMFS published a proposed rule to designate 36 occupied marine areas within the Atlantic Ocean and Gulf of Mexico as critical habitat for the Northwest Atlantic Ocean loggerhead sea turtle Distinct Population Segment. These areas contain one or a combination of nearshore reproductive habitat, winter area, breeding areas, and migratory corridors. The proposed rule is also considering whether to include as critical habitat in the final rule some areas that contain foraging habitat and two large areas that contain Sargassum habitat. The public comment period for the proposed rule ended on November 29, 2013. The proposed action is currently under review by the NMFS Office of Protected Resources.

Deepwater Horizon MC252 Oil Spill

On April 20, 2010 an explosion occurred on the Deepwater Horizon MC252 oil rig approximately 36 nautical miles (41 statute miles) off the Louisiana coast. Two days later the rig sank. An uncontrolled oil leak from the damaged well continued for 87 days until the well was successfully capped by British Petroleum on July 15, 2010. The Deepwater Horizon MC252 oil spill affected at least one-third of the Gulf area from western Louisiana east to the Florida Panhandle and south to the Campeche Bank in Mexico (Figure 3.2.1).

As reported by the National Oceanic and Atmospheric Administration Office of Response and Restoration (NOAA 2010), the oil from the Deepwater Horizon MC252 spill is relatively high in alkanes, which can readily be used by microorganisms as a food source. As a result, the oil from this spill is likely to biodegrade more readily than crude oil in general. The Deepwater Horizon MC252 oil is also relatively much lower in polyaromatic hydrocarbons. Polyaromatic hydrocarbons are highly toxic chemicals that tend to persist in the environment for long periods of time, especially if the spilled oil penetrates into the substrate on beaches or shorelines. Like all crude oils, MC252 oil contains volatile organic compounds (VOCs) such as benzene, toluene, and xylene. Some VOCs are acutely toxic but because they evaporate readily, they are generally a concern only when oil is fresh.⁴

⁴ Source: http://sero.nmfs.noaa.gov/sf/deepwater_horizon/OilCharacteristics.pdf

In addition to the crude oil, 1.4 million gallons of the dispersant, Corexit 9500A[®], was applied to the ocean surface and an additional 770,000 gallons of dispersant was pumped to the mile-deep well head (National Commission 2010). No large-scale applications of dispersants in deep water had been conducted until the Deepwater Horizon MC252 oil spill. Thus, no data exist on the environmental fate of dispersants in deep water. However, a study found that, while Corexit 9500A[®] and oil are similar in their toxicity, when Corexit 9500A[®] and oil were mixed in lab tests, toxicity to microscopic rotifers increased up to 52-fold (Rico-Martínez et al. 2013). This suggests that the toxicity of the oil and dispersant combined may be greater than anticipated.

Oil could exacerbate development of the hypoxic “dead” zone in the Gulf as could higher than normal input of water from the Mississippi River drainage. For example, oil on the surface of the water could restrict the normal process of atmospheric oxygen mixing into and replenishing oxygen concentrations in the water column. In addition, microbes in the water that break down oil and dispersant also consume oxygen; this could lead to further oxygen depletion.

Changes have occurred in the amount and distribution of fishing effort in the Gulf in response to the oil spill. This has made the analysis of the number of days needed for the recreational sector to fill its quota more complex and uncertain, and will make the requirement to allow the recreational sector to harvest its quota of red snapper while not exceeding the quota particularly challenging. Nevertheless, substantial portions of the red snapper population are found in the northwestern and western Gulf (western Louisiana and Texas) and an increasing population of red snapper is developing off the west Florida continental shelf. Thus, spawning by this segment of the stock may not be impacted, which would mitigate the overall impact of a failed spawn by that portion of the stock located in oil-affected areas.

As a result of the Deepwater Horizon MC252 spill, a consultation pursuant to ESA Section 7(a)(2) was reinitiated. As discussed above, on September 30, 2011, the Protected Resources Division released a biological opinion, which after analyzing best available data, the current status of the species, environmental baseline (including the impacts of the recent Deepwater Horizon MC252 oil release event in the northern Gulf), effects of the proposed action, and cumulative effects, concluded that the continued operation of the Gulf reef fish fishery is not likely to jeopardize the continued existence of green, hawksbill, Kemp’s ridley, leatherback, or loggerhead sea turtles, nor the continued existence of smalltooth sawfish (NMFS 2011a).

For additional information on the Deepwater Horizon MC252 oil spill and associated closures, see: http://sero.nmfs.noaa.gov/deepwater_horizon_oil_spill.htm.

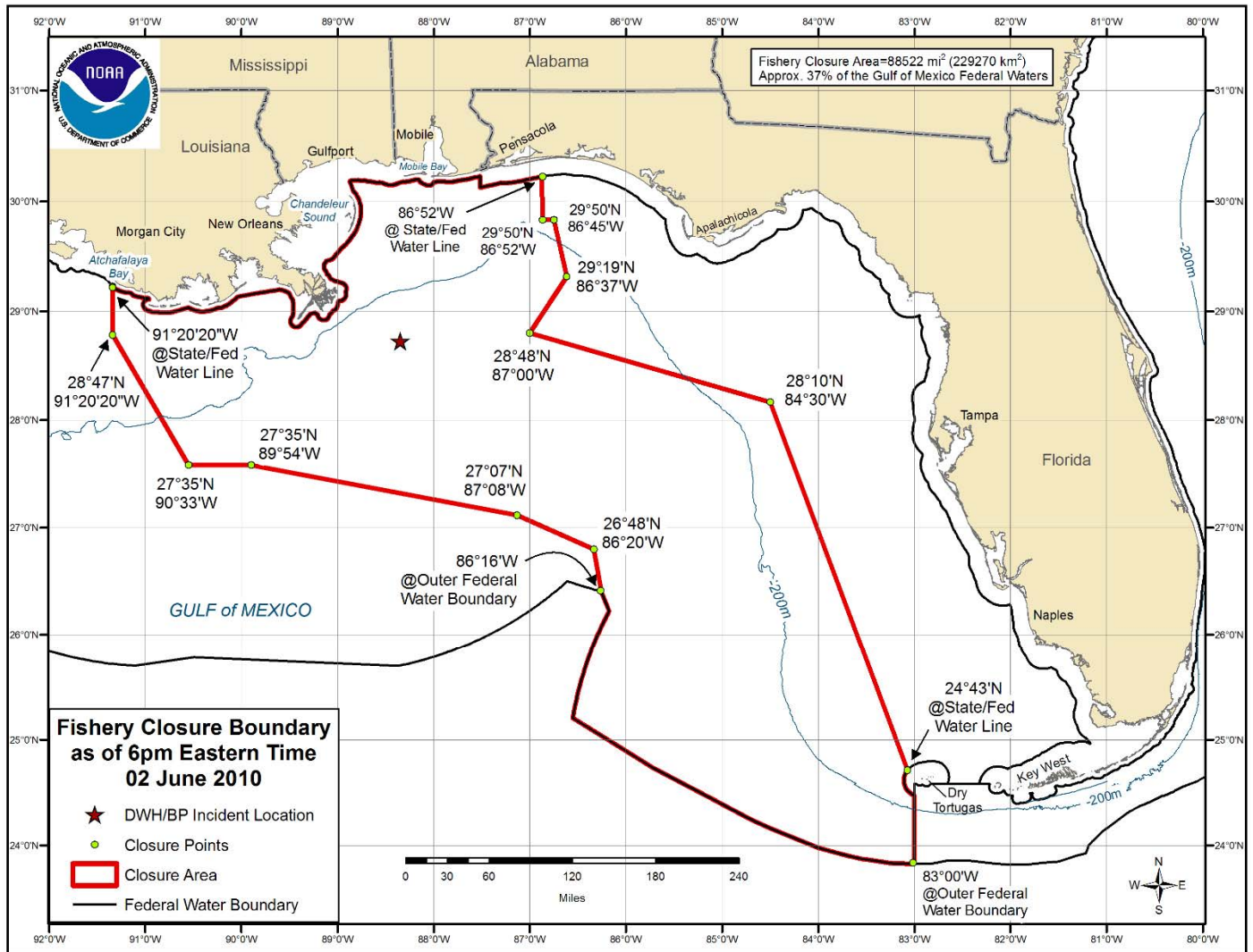


Figure 3.2.1. Fishery closure at the height of the Deepwater Horizon MC252 oil spill.

3.3 Description of the Economic Environment

3.3.1 Commercial Sector

Descriptions of the commercial sector of the Gulf reef fish fishery are contained in GMFMC (2011; general reef fish), GMFMC (2012; grouper), and GMFMC (2013; red snapper) and are incorporated herein by reference. Because this proposed framework amendment would only change management of the recreational sector, updates of the information on the commercial sector are not provided.

3.3.2 Recreational Sector

Descriptions of the recreational sector of the reef fish fishery are contained in GMFMC (2011; general reef fish), GMFMC (2012; shallow-water grouper), and GMFMC (2013; red snapper) and are incorporated herein by reference. The following information provides summary highlights of key information contained in these descriptions and updated information, where available.

Angler Effort

Over the period 2004-2008, an average of approximately 1.32 million angler trips per year were taken targeting reef fish from the shore, private/rental vessel, and charter modes in Alabama, Florida, Louisiana, and Mississippi. More recent estimates are not available. A target trip is an individual angler trip (i.e., not a boat/vessel trip carrying multiple anglers), regardless of trip duration, on which the angler targeted the species or any species in the species group. The target species did not have to be caught or, if caught, kept. These estimates do not include the headboat sector or Texas because the Gulf headboat data collection program does not collect target information and similar information is not available for Texas.

Shallow-water grouper and red snapper are the most commonly targeted reef fish species and account for the majority of reef fish target trips. Over the period 2006-2010, an average of approximately 560,000 angler trips targeted one of the shallow-water grouper species per year. Among these trips, approximately 520,000 targeted gag. Over the period 2006-2009 and 2011, an average of approximately 380,000 angler trips targeted red snapper per year. Data from 2010 were excluded for the calculation of average annual red snapper target trips because of the widespread closures in response to the Deepwater Horizon MC252 oil spill. These closures did not extend to substantial portions of Florida waters, where the majority of fishing for grouper occurs. Hence, the inclusion of 2010 data in the evaluation of shallow-water grouper target effort, but exclusion for similar for red snapper.

Permits

The for-hire sector is comprised of charter vessels and headboats (party boats). Although charter vessels tend to be smaller, on average, than headboats, the key distinction between the two types of operations is how the passenger fee is determined. On charter trips, the fee charged covers the

entire vessel, regardless of how many passengers are carried, whereas the fee charged for a headboat trip is paid per individual angler (per “head”).

A federal for-hire vessel permit has been required for reef fish fishing in the EEZ since 1996 and the sector currently operates under a limited access system. On February 13, 2014, there were 1,340 valid (non-expired) or renewable Gulf Charter/Headboat Reef Fish Permits. A renewable permit is an expired permit that may not be actively fished, but is renewable for up to one year after expiration. Although the permit does not distinguish between headboats and charter boats, an estimated 70 headboats operate in the Gulf (K. Brennan, NMFS Southeast Fisheries Science Center, pers. comm.).

Information on Gulf charter and headboat operating characteristics, including average fees and net operating revenues, is contained in Savolainen et al. (2012) and is incorporated herein by reference.

There are no specific permitting requirements for recreational anglers to fish for or harvest reef fish in the EEZ. Instead, anglers are required to possess either a state recreational fishing permit that authorizes saltwater fishing in general, or be registered in the federal National Saltwater Angler Registry system, subject to appropriate exemptions. As a result, it is not possible to identify with available data how many individual anglers would be expected to be affected by this proposed amendment.

Economic Value

Economic value can be measured in the form of consumer surplus per fishing trip or fish caught for recreational anglers (the amount of money that an angler would be willing to pay for a fishing trip, or to harvest an additional fish, in excess of the cost of the trip) and producer surplus per passenger trip for for-hire vessels (the amount of money that a vessel owner earns in excess of the cost of providing the trip). Estimates of the consumer surplus per fish for groupers, red snapper, and other saltwater species are provided in Carter and Liese (2012) and are incorporated herein by reference.

Estimates of the producer surplus per for-hire passenger trip are not available. Instead, net operating revenues, which are the return used to pay all labor wages, returns to capital, and owner profits, are used as the proxy for producer surplus. The estimated net operating revenue is \$160.14 per target charter angler trip and \$53.02 (2013 dollars) per target headboat angler trip regardless of species targeted or catch success (C. Liese, NMFS Southeast Fisheries Science Center, pers. comm.). Estimates of net operating revenue by target species are not available.

Business Activity

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

expenditures would similarly generate economic activity in the region where the expenditure occurs. As such, the analysis below represents a distributional analysis only.

Recreational fishing generates business activity (economic impacts). Business activity for the recreational sector is characterized in the form of full time equivalent jobs and output (sales) impacts (gross business sales). Estimates of the business activity associated with the average annual target effort for reef fish, shallow-water grouper, and red snapper are provided in Table 3.3.1.

Table 3.3.1. Summary of recreational target trips and associated business activity (million 2013 dollars; all modes).

	Alabama	West Florida	Louisiana	Mississippi	Texas
Reef Fish*					
Target trips	126,463	1,092,384	87,277	12,990	**
Output impact	\$19.82	\$85.16	\$18.44	\$0.40	**
Jobs	228	802	174	3	**
Shallow-water Grouper					
Target trips	3,338	552,220	359	369	**
Output impact	\$0.42	\$34.49	\$0.03	\$0.01	**
Jobs	5	322	0	0	**
Red Snapper					
Target trips	111,846	198,609	58,108	7,729	**
Output impact	\$18.13	\$23.27	\$13.03	\$0.25	**
Jobs	209	219	123	2	**

*Includes shallow-water groupers and red snapper.

**Because target information is unavailable, associated business activity cannot be calculated.

Source: Effort data are derived from the MRFSS/MRIP, and the business activity results calculated by NMFS SERO. Estimates of the business activity associated with headboat effort are not available. Headboat vessels are not covered in MRFSS/MRIP so, in addition to the absence of estimates of target effort, estimation of the appropriate business activity coefficients for headboat effort has not been conducted.

The estimates provided in Table 3.3.1 only apply at the state-level. These numbers are not additive across the region. Addition of the state-level estimates to produce a regional (or national total) could either under- or over-estimate the actual amount of total business activity because of the complex relationship between different jurisdictions and the expenditure/impact multipliers. Neither regional nor national estimates are available at this time.

3.4 Description of the Social Environment

A description of the social environment for for-hire vessels who harvest reef fish is included in the following narrative.

This framework action would affect participants (captains, crew, and passengers) of the charter-headboat fleet who harvest reef fish as it proposes to address the provision requiring federally permitted for-hire vessels to comply with more restrictive federal fishing regulations when fishing in state waters. Currently, two reef fish species (red snapper and gag) have inconsistent federal and state fishing seasons. These two species are thus described in more detail in the following description. In addition, other reef fish species could have inconsistent federal and state regulations regarding in-season closures. An in-season closure could be required in federal waters for specific reef fish species; however the fishery could remain open in state waters. Reef fish are thus described generally in the following description, in relation to the charter-headboat operations. Information is included by reference when possible.

Reef Fish Fishing Communities

A description of the social environment for the commercial and recreational sectors' harvest of reef fish is provided in GMFMC (2011b) and is incorporated herein by reference. This Generic Amendment includes a description of communities within each county that are most reliant upon reef fish species, commercially and recreationally.

Because this proposed framework action would impact the management of the recreational sector, the following description focuses primarily on the recreational sector.

The majority of federal charter-headboat permits for reef fish are held by operators in Florida (58.9% in 2013), followed by Texas (16.1%), Alabama (11.7%), Louisiana (8.7%), Mississippi (3.5%), and other states (1.1%, Table 3.4.1). The distribution of permits by state has followed a similar pattern throughout the last five years (Table 3.4.1).

Table 3.4.1. Number of Gulf charter-headboat permits for reef fish and historical captain charter-headboat permits for reef fish, by state and by year.

State	2009	2010	2011	2012	2013
AL	150	147	148	155	159
FL	900	865	832	814	803
LA	111	110	123	123	119
MS	52	52	50	48	48
TX	241	237	226	221	219
Other	19	21	17	17	15
Total	1473	1432	1396	1378	1363

Source: NMFS Southeast Regional Office permit office, SERO Access database. Includes valid and renewable permits. Data for 2013 are preliminary.

Charter-headboat permits are held by those with mailing addresses in a total of 323 communities, located in 22 states (Southeast Regional Office (SERO) permit office, February 13, 2014). The communities with the most charter-headboat permits for reef fish are provided in Table 3.4.2.

Table 3.4.2. Top ranking communities based on the number of Gulf charter-headboat permits for reef fish and historical captain charter-headboats for reef fish, in descending order.

Community	State	Permits
Destin	FL	67
Orange Beach	AL	47
Key West	FL	45
Panama City	FL	43
Naples	FL	36
Pensacola	FL	30
Panama City Beach	FL	29
Sarasota	FL	19
Port Aransas	TX	19
Galveston	TX	18
Clearwater	FL	17
Marco Island	FL	17
Fort Walton Beach	FL	15
Gulf Breeze	FL	15
Biloxi	MS	15
St. Petersburg	FL	14
Chauvin	LA	14
Gulf Shores	AL	12
Marathon	FL	12
Port St. Joe	FL	12
Freeport	TX	12

Source: NMFS Southeast Regional Office permit office, February 13, 2014.

Vessels that are dual permitted, possessing both charter-headboat permits for reef fish (including charter-headboat permits and historical captain permits) and commercial reef fish permits are located primarily in Florida (74.7%), followed by Texas (12.1%), Alabama (9.2%), and Louisiana (4%, Table 3.4.3). No vessels in Mississippi are dual permitted.

Table 3.4.3. Number of vessels with Gulf charter-headboat permits for reef fish and commercial reef fish permits, by state for Gulf states.

State	Vessels
AL	16
FL	130
LA	7
TX	21
Total	174

Source: NMFS Southeast Regional Office permit office, February 12, 2014.
Includes valid or renewable permits.

Red Snapper Fishing Communities

A description of the social environment for the commercial and recreational sectors' harvest of red snapper is provided in GMFMC (2013a) and is incorporated herein by reference. Because this proposed framework action would only affect management of the recreational sector, a summary of the information provided in GMFMC (2013a) is included for the recreational sector only.

Red snapper is harvested recreationally in all five Gulf states. Landings by state are not constant; the proportion of the quota represented by each state varies from year to year. Across time, the proportion of landings made up by the eastern Gulf states (Alabama and western Florida) has increased compared to the western Gulf states (Texas and Louisiana), as the rebuilding plan has proceeded.

Red snapper landings for the recreational sector are not available at the community level, making it difficult to identify communities as dependent on recreational fishing for reef fish. It cannot be assumed that the proportion of commercial reef fish landings among other species in a community would be similar to its proportion among recreational landings within the same community because of sector differences in fishing practices and preferences. Thus, in addition to communities with the greatest commercial reef fish landings, the referenced analysis identifies communities with the greatest recreational fishing engagement, based on numbers of: 1) federal for-hire permits, 2) vessels designated recreational by owner address, and 3) vessels designated recreational by homeport, plus availability of recreational fishing infrastructure. The 20 Gulf communities to score highest for recreational fishing engagement based on the described analysis are listed in Table 3.4.4. Because the analysis used discrete geo-political boundaries, Panama City and Panama City Beach had separate values for the associated variables. Calculated independently, each still ranked high enough to appear in the top 20 list suggesting a greater importance for recreational fishing in that region.

Table 3.4.4. Top ranking Gulf communities based on recreational fishing engagement and reliance, in descending order.

Community	County	State
Destin	Okaloosa	FL
Orange Beach	Baldwin	AL
Panama City	Bay	FL
Port Aransas	Nueces	TX
Pensacola	Escambia	FL
Panama City Beach	Bay	FL
Naples	Collier	FL
St. Petersburg	Pinellas	FL
Freeport	Brazoria	TX
Biloxi	Harrison	MS
Galveston	Galveston	TX
Clearwater	Pinellas	FL
Fort Myers Beach	Lee	FL
Sarasota	Sarasota	FL
Tarpon Springs	Pinellas	FL
Dauphin Island	Mobile	AL
Apalachicola	Franklin	FL
Carrabelle	Franklin	FL
Port St. Joe	Gulf	FL
Marco Island	Collier	FL

Source: NMFS Southeast Regional Office permit office 2008, MRIP site survey 2010.

Comparing the communities of recreational importance (Table 3.4.4) and those with greater commercial landings and IFQ shareholders (see Figure 3.4.2 and Table 3.4.2 in GMFMC 2013a), five communities overlap: Destin, Panama City, Pensacola, and Apalachicola, Florida and Galveston, Texas. Social effects resulting from actions taken in this framework action are likely to be greatest in these communities.

For additional information pertaining to the social environment for the harvest of red snapper, the reader is directed to the following documents which are included here by reference. The February 2010 Regulatory Amendment (GMFMC 2010a) includes a detailed discussion of the commercial communities within each state and county which are the most reliant on red snapper. This description focuses on the demographic character of each county in order to aid in understanding the dependence of a particular county on red snapper fishing. The Gulf of Mexico 2011 Red Snapper IFQ Annual Report (NMFS 2012a) provides a detailed discussion of the commercial red snapper IFQ program.

Gag Fishing Communities

A description of the social environment for the recreational sectors' harvest of gag is provided in GMFMC (2012) and is incorporated herein by reference. This Framework Action includes a discussion of the communities most likely to be affected by changes to grouper management.

Florida accounts for more than 95% of the annual recreational gag landings. Gag landings for the recreational sector are not available at the community level, making it difficult to identify communities as dependent on recreational fishing for red snapper. However, the 20 Gulf communities to score highest for recreational fishing engagement are listed in Table 3.4.4.

Comparing the communities of recreational importance (Table 3.4.4) and those most likely to be affected by changes to gag management (see Table 3.5.1 in GMFMC 2012), seven communities overlap: Apalachicola, Panama City, Clearwater, St. Petersburg, Destin, Ft. Meyers Beach, and Tarpon Springs, Florida. Social effects, if any, resulting from actions taken in this framework action are likely to be greatest in these communities.

For additional information pertaining to the social environment for the harvest of gag, the reader is directed to the following documents which are included here by reference. The November 2010 Temporary Rule (NMFS 2010b) includes a detailed discussion of the commercial and recreational communities within each state and county which are the most reliant on gag. This description focuses on the demographic character of key counties in order to aid in understanding the dependence of a particular county on gag fishing. The Gulf of Mexico 2012 Grouper-Tilefish IFQ Annual Report (NMFS 2013) provides a detailed discussion of the commercial grouper-tilefish IFQ program.

Environmental Justice Considerations

Executive Order 12898 requires federal agencies conduct their programs, policies, and activities in a manner to ensure 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. The main focus of Executive Order 12898 is to consider “the disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories...” This executive order is generally referred to as environmental justice (EJ).

Recreational reef fish fishermen and associated businesses and communities along the coast may be affected by this proposed action. However, information on race, ethnicity, and income status for groups at the different participation levels (private anglers, for-hire captain, crew, and customers, and employees of recreational fishing businesses, etc.) is not available. Because this proposed action could be expected to affect fishermen and associated industries in numerous communities along the Gulf coast, census data (available at the county level, only) have been assessed to examine whether any coastal counties have poverty or minority rates that exceed the EJ thresholds.

The threshold for comparison that was used was 1.2 times the state average such that, if the value for the county was greater than or equal to 1.2 times the state average, then the county was considered an area of potential EJ concern (EPA 1999). Census data for the year 2010 was used. For Florida, the estimate of the minority (interpreted as non-white, including Hispanic)

population was 39.5%, while 13.2% of the total population was estimated to be below the poverty line. These values translate in EJ thresholds of approximately 47.4% and 15.8%, respectively (Table 3.4.5). Based on the demographic information provided, no potential EJ concern is evident with regard to the percent of minorities for the counties of the west coast of Florida. With regard for poverty, Dixie (3.8%), Franklin (8%), Gulf (1.7%), Jefferson (4.6%), Levy (3.3%), and Taylor (7.1%) counties exceed the threshold by the percentage noted. No potential EJ concern is evident for the remaining counties which fall below the poverty and minority thresholds. The same method was applied to the remaining Gulf states.

Table 3.4.5. Each state's average proportion of minorities and population living in poverty, and the corresponding threshold used to consider an area of potential EJ concern.

State	Minorities		Poverty	
	% Population	EJ Threshold	% Population	EJ Threshold
FL	39.5	47.4	13.2	15.8
AL	31.5	37.8	16.8	20.2
MS	41.2	49.4	21.4	25.7
LA	38.2	45.8	18.4	22.1
TX	52.3	62.7	16.8	20.1

Source: Census Bureau 2010.

In Alabama, Mobile was the only county to exceed the minority threshold (by 1.7%). Neither of Alabama's coastal counties exceeded the poverty threshold for potential EJ concern. No coastal county in Mississippi exceeded either threshold. In Louisiana, Orleans Parish exceeded the minority threshold by 25% and the poverty threshold by 1.3%. Texas has several counties that exceeded the thresholds. In descending order of magnitude for exceeding the minority threshold were Willacy (26.3%), Cameron (24.7%), Kleberg (12.3%), Kenedy (9%), Nueces (2.8%), and Harris (0.8%). Exceeding the poverty threshold were Kenedy (32.3%), Willacy (26.8%), Cameron (15.6%), Kleberg (6%), and Matagorda (1.8%). Willacy, Kenedy, Cameron, and Kleberg counties exceed both the minority and poverty thresholds and are the communities identified as most likely to be vulnerable to EJ concerns. Although this analysis identifies areas of potential EJ concern, it is not possible to determine whether the populations of potential EJ concern are involved in or dependent upon marine fishing activities.

This framework action addresses the provision requiring federally permitted for-hire vessels to comply with more restrictive federal regulations when fishing in state waters. As addressed in Section 4.1.4, effects on the distribution of fishing opportunities would not be expected for for-hire vessels engaged in fishing for gag. However, for red snapper, anglers on for-hire vessels in states with inconsistent regulations would be expected to benefit; however all recreational anglers would share in the negative impact of a shorter season in federal waters. Disproportionate impacts to EJ populations are not expected to result from any of the actions in this framework action.

3.5 Description of the Administrative Environment

3.5.1 Federal Fishery Management

Federal fishery management is conducted under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) (16 U.S.C. 1801 et seq.). Responsibility for federal fishery management is shared by the Secretary of Commerce (Secretary) and eight regional fishery management councils that represent the expertise and interests of constituent states. Regional councils are responsible for preparing, monitoring, and revising management plans for fisheries needing management within their jurisdiction. The Secretary is responsible for promulgating regulations to implement proposed plans and amendments after ensuring management measures are consistent with the Magnuson-Stevens Act and with other applicable laws summarized in Appendix A. In most cases, the Secretary has delegated this authority to NMFS.

The Council is responsible for fishery resources in federal waters of the Gulf. These waters extend to 200 nautical miles offshore from the nine-mile seaward boundary of the states of Florida and Texas, and the three-mile seaward boundary of the states of Alabama, Mississippi, and Louisiana. The 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 NMFS. The public is involved in the fishery management process through participation on advisory panels, public hearings, and through Council meetings. The regulatory process is in accordance with the Administrative Procedures Act, in the form of “notice and comment” rulemaking, which provides extensive opportunity for public scrutiny and comment, and requires consideration of and response to those comments.

Regulations contained within FMPs are enforced through actions of the National Oceanic and Atmospheric Administration’s Office of Law Enforcement, the United States Coast Guard, and various state authorities.

3.5.2 State Fishery Management

The purpose of state representation at the Council level is to ensure state participation in federal fishery management decision-making and to promote the development of compatible regulations in state and federal waters. The state governments of Texas, Louisiana, Mississippi, Alabama, and Florida have the authority to manage their respective state fisheries. Each of the five Gulf states exercises legislative and regulatory authority over their respective state’s natural resources through discrete administrative units. Although each agency 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. A more detailed description of each state’s primary regulatory agency for marine resources is provided in Amendment 22 (GMFMC 2004a).

CHAPTER 4. ENVIRONMENTAL CONSEQUENCES

4.1 Action 1: Rescind Permit Condition for Fishing in State Waters

4.1.1 Direct and Indirect Effects on the Physical Environment

Direct and indirect effects on the physical environment resulting from the harvest of reef fish in the Gulf have been discussed in detail in Reef Fish Amendment 22, Reef Fish Amendment 27/Shrimp Amendment 14 (GMFMC 2004a and 2007), and in the February 2010 Regulatory Amendment (GMFMC 2010) and are incorporated here by reference. The primary gear used by the recreational sector is hook-and-line. Hook-and-line gear has the potential to snag and entangle bottom structures. Each individual set has a very small footprint and thus only a small potential for impact, but the cumulative impacts from recreational fishing could result in a large amount of gear being placed in the water, increasing the potential for impact. The line and weights used by this gear type also can cause abrasions (Barnette 2001). Additionally, vessels used for hook-and-line fishing often anchor, adding to the potential damage of the bottom at fishing locations. If hook-and-line gear is lost, long-term indirect effects to habitat may occur if marine life becomes entangled in the gear or the gear is overgrown with algae (Hamilton 2000; Barnette 2001). Circle hooks are required in the reef fish fishery. Because of the design of circle hooks, this gear is less likely to snag bottom habitat than other hook types.

The direct and indirect effects on the physical environment from this action would be related to changes in fishing effort. The direct and indirect effects on the physical environment from **Alternative 1**, no action, would not change the current fishing conditions. No change in fishing effort is expected to occur because no new fishing regulations would be implemented; therefore, habitat-gear interactions are estimated to remain unchanged. **Alternative 2** could have effects on the physical environment from an increase in fishing effort for red snapper and/or gag in state waters. If the fishing effort shifts geographically from the federal to state waters, it is reasonable that the spatial concentration of the effects to the physical environment could occur in state waters. However, if the federal season for harvesting red snapper and/or gag would be adjusted to prevent exceeding the quota, then the cumulative effects on the physical environment would likely be similar to **Alternative 1**. However, this assumes that NMFS can accurately predict when the quota will be caught. Given the recent history of the recreational sector exceeding the red snapper quota, the removal of this provision could increase the probability of not constraining the harvest to the quota. The increased inconsistency of state regulation could introduce more uncertainty into the predictions. **Preferred Alternative 3** would likely have similar effects on the physical environments to **Alternative 2 (Options a and b)** if spatial changes in fishing effort occurred between the state and federal waters for the reef fish species. Similar to **Alternative 2**, **Preferred Alternative 3** would likely have minimal effects on the physical environment. However, **Alternative 2** and **Preferred Alternative 3** could have additional negative impacts if the effort shift into state waters is greater than expected which could increase damage to the physical environment.

The direct and indirect effects on the physical environment could also vary based on the consistency of state regulations with the federal regulations. If a state adopts inconsistent regulations that are less restrictive than the federal regulations, **Alternative 2** and **Preferred**

Alternative 3 would allow an increase in fishing effort in state waters because federally permitted for-hire vessels could now fish there in compliance with the less restrictive regulations. When state and federal regulations are consistent, no changes in effects to the physical environment are expected from **Alternative 2** and **Preferred Alternative 3**. If the states maintain consistent regulations, then **Alternative 1** would not provide any positive or negative impacts. In comparison, if the states do not maintain consistent regulations, **Alternative 1** would provide more benefits than **Alternative 2** and **Preferred Alternative 3** by requiring for-hire vessels to abide by more restrictive red snapper regulations than allowed by the state. More restrictive regulations reduce effort and the amount of time spent fishing, which would indirectly benefit the physical environment by reducing habitat-gear interactions.

Alternative 4 would extend the provision by establishing a private recreational permit to fish in federal waters and requiring these anglers to abide by the more strict federal regulations. Based on National Marine Fisheries Service (NMFS) analysis (Appendix C), requiring the private vessels to abide by this provision may slightly extend the season length for red snapper by approximately two days. However, there is no estimate for the potential reduction of the season length for gag or other reef fish at this time. However, there is no estimate for the potential change of the season length for gag or other reef fish at this time. It is reasonable to assume that the reduction of season length in federal waters would reduce the associated fishing effort. Similar to **Alternative 2** and **Preferred Alternative 3**, the direct and indirect effects of **Alternative 4** on the physical environment would be based on changes in fishing effort spatially between the state and federal waters for the reef fish species and the cumulative effects would likely be minimal.

In summary, the most restrictive alternative is **Alternative 4** followed by **Alternative 1**. **Preferred Alternative 3** is the least restrictive and could result in negative impacts to the physical environment if the harvest is not constrained to the quota for the reef fish species. **Alternative 2** would be slightly more restrictive than **Preferred Alternative 3**, by allowing an increase of fishing effort in state waters for the selected species, red snapper (**Option a**) or gag (**Option b**). Other reef fish species would continue to be constrained from harvest by federally permitted vessels. The direct and indirect effects on the physical environment would be based on the amount of fishing activity in a given area.

4.1.2 Direct and Indirect Effects on the Biological/Ecological Environment

This action would not change quotas or annual catch limits (ACLs), but for stocks subject to recreational quota or ACL closures it would likely result in National Marine Fisheries Service (NMFS) adjusting the recreational season in federal waters to account for changes in fishing effort and landings from state waters. To the extent that NMFS is successful in accurately estimating the impacts of each alternative, total recreational catch of red snapper and other reef fish should not be directly impacted by the alternative selected. However, the red snapper recreational harvest has exceeded its quota every year during 2007-2012 except for the oil spill year of 2010 (Table 1.1.1). Overharvests occurred both before and after the 2009 implementation of the 30B permit provision, which suggests that this trend of overharvests will continue whether the 30B permit provision is in place or not. In contrast to red snapper, the gag recreational ACL has consistently been underharvested since the 30B permit provision was implemented (Table 1.1.2), while greater amberjack has had both overharvests and underharvests

(Table 1.1.4). An analysis of the effects of the alternatives on projected recreational season lengths for red snapper and gag is presented in Appendix C.

A redistribution of fishing effort between federal and state waters would occur off of states that adopt inconsistent regulations. At present, Mississippi and Alabama have consistent regulations, while Texas, Louisiana, and Florida have inconsistent regulations.

In addition, except for Alabama, a lag time between implementation of a federal quota closure and a corresponding state closure could allow additional state water harvest. Alabama has a rule that closes state waters to recreational harvest of a reef fish species when federal waters are closed (AL Administrative Code 220-3-.46), but other states require that action be taken by the appropriate commission or department, which could result in a lag time before corresponding state closures are implemented. This lag allows private and non-federally permitted for-hire vessels to continue fishing regardless of the status of the 30B permit provision. Without the 30B permit provision, federally permitted for-hire vessels could also fish in state waters during the lag period. This would most likely impact stocks that are subject to quota or ACL in-season closures for which states otherwise have consistent seasons. In 2013, hogfish and gray triggerfish had ACL in-season recreational closures. The impact of this lag time on recreational state harvest of stocks cannot be estimated since neither the length of lag time for each state nor the amount of additional fishing effort that would result on these stocks from federally permitted for-hire vessels can be determined.

Alternative 1 leaves the permit condition in place. This maintains the status quo level of fishing pressure in state waters by constraining federally permitted for-hire vessels. This allows longer federal seasons for the recreational sector than if the condition were removed (see Appendix C). Because this restriction applies to all recreational reef fish harvest, all federally managed reef fish, including those that are not under quota management, may be impacted by the catch restrictions.

Catches in state waters can still be substantial for some species. Amendment 30B reviewed state vs. federal catches for red snapper, gag, and red grouper in 2007. Tables 4.1.2.1 – 4.1.2.3 updates the 2007 catches to their Marine Recreational Information Program (MRIP) equivalent values and compares the pre-30B catch distribution in 2007 to the most recent year, 2012. In general, since the implementation of the 30B permit provision, red snapper appear to have experienced a decrease in the proportion of state caught fish by private vessels, and a slight increase by for-hire vessels (Figure 4.1.2.1). Gag landings data have shown an increasing proportion of fish caught in state waters that extends back to 2006, and may be related more to the rebuilding of the stock since the 2005 red tide incident (Figure 4.1.2.2). The proportion of state-caught red grouper since 2009 appears to have increased from about 10% to 20% for private vessels, while catches from for-hire vessels have been without trend except for a spike in state-water landings in 2010 (Figure 4.1.2.3). Under this alternative, for states that have extended seasons, recreational catches outside of the federal season will continue to occur from private vessels and for-hire vessels that are not federally permitted.

Table 4.1.2.1. Total estimated MRIP landings of red snapper, red grouper, and gag reported in state and federal waters of the Gulf.

Species	Mode	2007 Landings (lbs)	Pct Landings by Area Fished		2012 Landings (lbs)	Pct Landings by Area Fished	
			State	Federal		State	Federal
Red Snapper	Charter	1,692,520	30.87%	69.13%	1,238,205	16.04%	83.96%
	Private	2,419,010	40.43%	59.57%	2,987,139	20.91%	79.09%
Gag	Charter	373,811	13.72%	86.28%	397,886	21.22%	78.78%
	Private	1,873,032	40.58%	59.42%	610,657	56.03%	43.97%
Red Grouper	Charter	177,606	9.78%	90.22%	540,632	5.45%	94.55%
	Private	923,468	16.97%	83.03%	1,285,719	23.37%	76.63%

Source: SEFSC ACL Data (Jan 2014)

Table 4.1.2.2. Total estimated Texas landings of red snapper, red grouper, and gag reported in state and federal waters of the Gulf.

Species	Mode	2007 Landings (lbs)	Pct Landings by Area Fished		2012 Landings (lbs)	Pct Landings by Area Fished	
			State	Federal		State	Federal
Red Snapper	Charter	41,088	19.81%	80.19%	39,128	36.43%	63.57%
	Private	128,486	52.92%	47.08%	157,937	58.02%	41.98%
Gag	Charter	214	100.00%	0.00%	212	61.54%	38.46%
	Private	1,423	84.94%	15.06%	1,494	88.52%	11.48%
Red Grouper	Charter	0	na	na	0	na	na
	Private	159	0.00%	100.00%	0	na	na

Source: SEFSC ACL Data (Jan 2014)

Table 4.1.2.3. Total estimated Southeast Region Headboat Survey landings of red snapper, red grouper, and gag reported in state and federal waters of the Gulf.

Species	Mode	2007 Landings (lbs)	Pct Landings by Area Fished		2012 Landings (lbs)	Pct Landings by Area Fished	
			State	Federal		State	Federal
Red Snapper	Headboat	487,004	7.38%	92.62%	724,077	11.08%	88.92%
Gag	Headboat	74,226	3.69%	96.31%	45,519	7.17%	92.83%
Red Grouper	Headboat	25,858	2.00%	98.00%	87,324	9.17%	90.83%

Source: SEFSC ACL Data (Jan 2014)

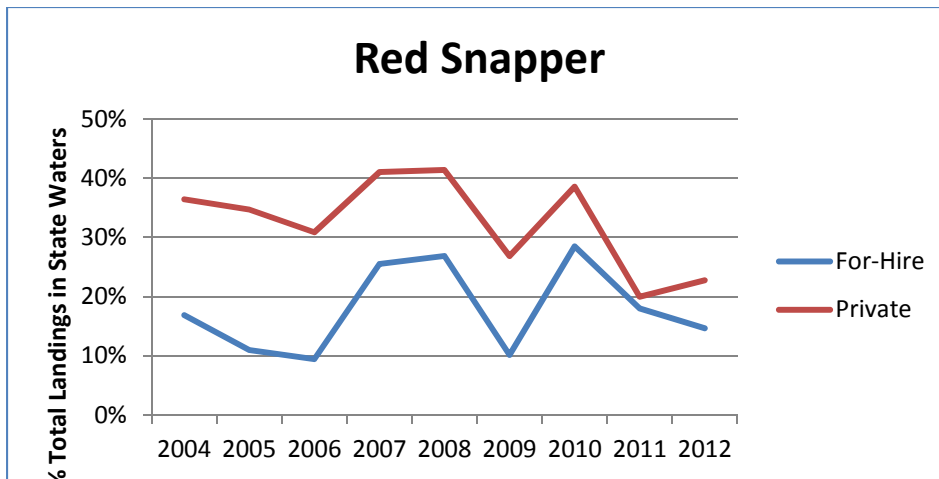


Figure 4.1.2.1. Estimated total recreational landings of red snapper reported in state and federal waters of the Gulf 2004-2012.

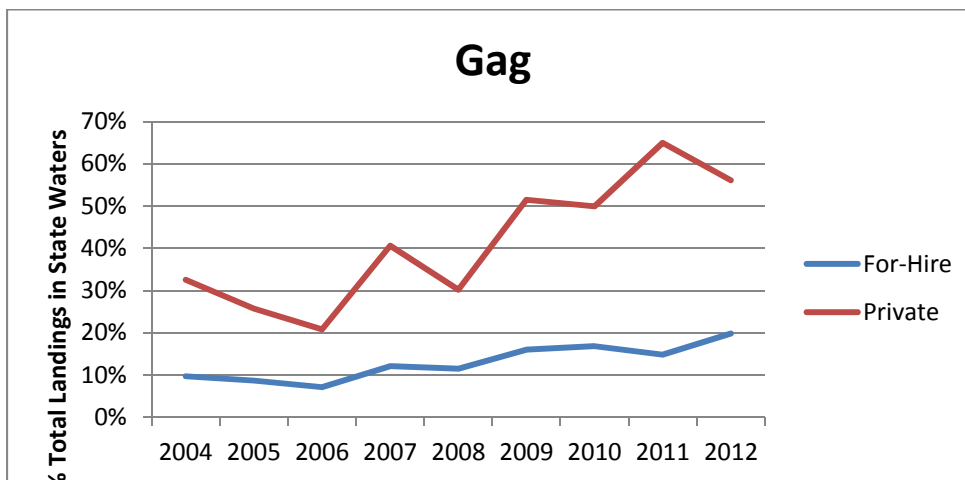


Figure 4.1.2.2. Estimated total estimated landings of gag reported in state and federal waters of the Gulf 2004-2012.

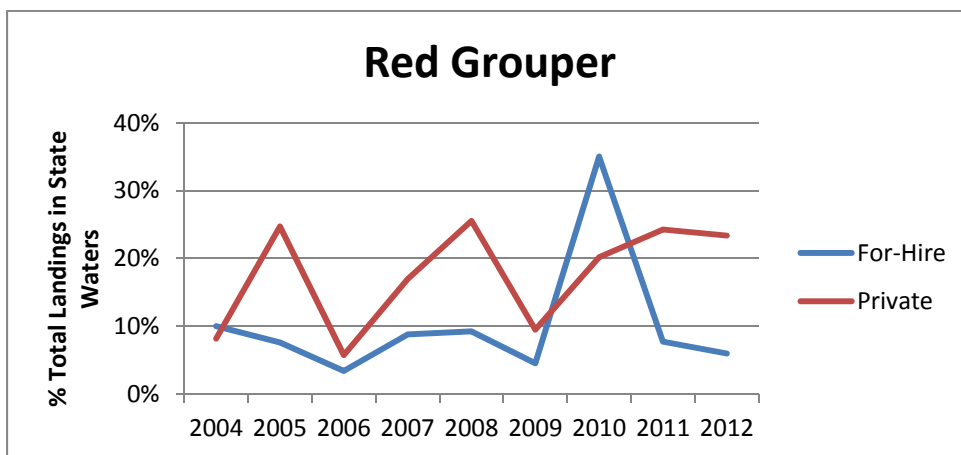


Figure 4.1.2.3. Estimated total recreational landings of red grouper reported in state and federal waters of the Gulf 2004-2012.

Alternative 2 selectively rescinds the permit condition for federally permitted charter and headboats fishing for (**Option a**) red snapper and/or (**Option b**) gag. The permit condition would remain in place for all other reef fish species. This would allow increased fishing effort for the selected species in state waters that have extended fishing seasons. In addition, one state, Texas, has a smaller red snapper recreational minimum size limit (15" TL) and two states (Texas and Louisiana) have larger bag limits (4 red snapper – TX; 3 red snapper - LA) than federal regulations. Thus, **Option a** would allow slightly smaller red snapper to be caught when federally permitted vessels are fishing in Texas state waters. During 2012, approximately 137 thousand pounds of red snapper were recreationally landed in Texas outside of the federal season (Table 5, Appendix C). In Louisiana, the LA-DWF quota monitoring program in 2013 reported approximately 162 thousand pounds of red snapper recreationally landed outside of the federal season (Table 4, Appendix C). These state landings are expected to increase under **Option a**, but would be countered by a shorter season in federal waters. Because the season in federal waters would likely be reduced, private vessels and state-permitted for-hire vessels off states with off states with consistent state seasons (Mississippi and Alabama) would have a net loss of fishing days. Under **Option b**, the effect of this alternative on gag harvest could not be estimated (Appendix C). Most of the recreational gag harvest occurs off of Florida and Alabama. Alabama has consistent state regulations. Florida has consistent regulations along most of its Gulf coast, but a separate recreational season where recreational gag harvest is open April 1 through June 30 and closed the rest of the year off of four counties (Franklin, Wakulla, Taylor and Jefferson) in the Big Bend area of Florida. The impact of this regional season has not been evaluated. Since the Big Bend recreational gag season is open when the rest of the Gulf is closed, and closed when the rest of the Gulf is open, the net impact could be either more or less restrictive. Regardless of which direction the impacts occur, based on NMFS federal permit records, few for-hire vessels operate in the Big Bend area of Florida where Florida has adopted inconsistent regulations. Thus, rescinding the permit condition for gag under this scenario would likely have minimal impacts on recreational gag harvest (Appendix C).

Preferred Alternative 3 rescinds the permit condition for federally permitted charter and headboats for all reef fish. For on-the-water enforcement this would be a simpler approach than selectively applying the exclusion to certain species. Rescinding the 30B permit provision could result in shorter federal fishing seasons for reef fish species that have been subject to recreational quota or ACL closures, i.e., red snapper, gag, gray triggerfish, and hogfish. The number of days that these seasons would be shortened depends on the amount of additional harvest that would occur by charter vessels and headboats operating in state waters. For red snapper, NMFS has estimated that the 2014 federal recreational season would be shortened by 4 to 9 days (Appendix C). Provided that this season adjustment results in the same amount of recreational red snapper harvest as the current 40 day season with the 30B permit provision in place, the impact on the red snapper rebuilding plan would be neutral. Stocks that have not been subject to ACL closures become more heavily targeted due to effort shifting, and could become subject to ACL closures if a large increase in state catches results from rescinding the 30B permit provision. In 2013, 115% of the greater amberjack recreational ACL and 121% of the red grouper recreational ACL was caught. Under the reef fish accountability measures, these stocks will be monitored for possible ACL closures in 2014.

Most of the species managed by the Reef Fish FMP are caught primarily in federal waters. Allowing increased fishing in state waters should have minimal impacts on these stocks.

However, in 2013, MRIP reported that 22% of recreational gray triggerfish catches and 38% of hogfish catches occurred in state waters (source: MRIP website). For gag, during 2004-2012, 20% to 65% of private vessel landings occurred in state waters, and 10% to 20% of for-hire landings came from state waters (Figure 4.1.2.2). If state water catches by for-hire vessels are currently being constrained by the 30B permit provision, then the percent of for-hire state water landings of these species can be expected to increase. Since all of these species may be subject to ACL closures, total catch and stock status should not be affected by removing the 30B permit provision, although a greater proportion of the catches may occur in state waters.

Increased discard mortality could be a concern gag. The average size of gag has been shown to increase with increasing depth. Consequently, increased targeting of gag in state waters would increase the numbers of gag that are caught and released. Although release mortality is low in shallow water (the SEDAR 10 2006 and SEDAR 10 Update 2009 assessments used a release mortality of 11% for gag caught in 33 feet), this would increase the total number of discards including dead discards. Given that only 10% to 20% of for-hire landings came from state waters during years both before and after 2009 implementation of the 30B permit provision (Figure 4.1.2.2), the proportion of state water caught gag by for-hire vessels is not expected to change substantially, and the elimination of the 30B provision is expected to have only minor impacts on discard mortality.

Alternative 4 leaves the current permit condition in place, and extends it to private recreational vessels by establishing a private recreational reef fish permit and applying the same permit condition to those vessels as applies to the federally permitted for-hire vessels. Permitting requirements previously required a full plan amendment, but the generic framework procedure adopted in the Generic ACL/AM Amendment (GMFMC 2011b) allows permitting requirements to be established under the framework procedure. This would have the opposite effect of **Alternative 2** or **Preferred Alternative 3** in that it would reduce harvest of reef fish in state waters for all states that set different in-state seasons. State extended seasons currently apply only to red snapper and gag, but gray triggerfish and hogfish have also been subject to in-season ACL closures in recent years. The percent of landings occurring in state waters for red snapper, red grouper and gag is shown in Tables 4.1.2.1 – 4.1.2.3 and Figures 4.1.2.1 – 4.1.2.3. In 2012, 16% - 58% of red snapper, 5% - 23% of red grouper, and 21% - 88% of gag were caught in state waters. For 2013, MRIP reported that 22% of recreational gray triggerfish catches and 38% of hogfish catches occurred in state waters (source: MRIP website)

In summary, **Preferred Alternative 3** would allow the greatest increase in recreational harvest of reef fish in state waters that have extended state seasons. **Alternative 2** would allow an increase in state waters for the selected species, red snapper (**Option a**) or gag (**Option b**). Other reef fish species would continue to be constrained from harvest by federally permitted vessels. However, bycatch of these reef fish may increase from vessels targeting red snapper and/or gag. **Alternative 1** continues the existing restrictions and would result in less state caught reef fish than either **Alternative 2** or **Preferred Alternative 3**. **Alternative 4** is the most restrictive alternative. It would extend the permit condition to private recreational vessels, and would reduce reef fish harvest in state waters that currently have extended state seasons. To the extent that NMFS is able to adjust the federal recreational seasons so that total recreational catch stays within quotas, total landings would be unaffected. However, as the number of incompatible regulations increases the more difficult it will be for NMFS to accurately predict

federal season lengths and harvest levels. Further, for species that show a relationship between the size of fish and depth (e.g., gag), increased harvest in state waters under **Alternative 2** and **Preferred Alternative 3** may increase regulatory discards and discard mortality, while **Alternative 4** would reduce regulatory discards. Generally, survival of released fish is higher in shallower waters. Therefore, any changes in discard rates and discard mortality would need to be evaluated in a subsequent stock assessment to determine the effect on stock productivity and future yield projections.

4.1.3 Direct and Indirect Effects on the Economic Environment

For-hire Sector

When access to fishing privileges is restricted, as in the case of the limited access federal reef fish charter/headboat (for-hire) permit, there will be unequal access to the income opportunities associated with these privileges. Fishing in the Exclusive Economic Zone (EEZ) for certain species, including reef fish, and for which a federal for-hire permit is required, is expected to be more successful than fishing in state waters because the target species may be more plentiful and/or larger. Because fishing in the EEZ is expected to be more successful, the fishing experience is possibly more valuable, federally permitted vessels may charge a higher price and, as a result, may be more profitable. Thus, federally permitted for-hire vessels have an economic advantage over vessels that do not have a federal permit.

Federally permitted for-hire vessels are not required to keep their federal permit. The vessel owner may choose to sell, surrender, or not renew their permit. The sale, surrender, or non-renewal of the federal permit would limit the vessel to fishing in state waters. Most federally permitted vessels renew their federal for-hire permit, rather than sell, surrender, or not renew the permit. Renewal of the permit instead of sale, surrender, or non-renewal could be logically interpreted as an indication of recognition by the permit holder of the higher value of the federal permit.

Not requiring federally permitted for-hire vessels to comply with federal regulations, if more restrictive than state regulations, when fishing in state waters would further increase the economic advantage of vessels with a federal for-hire permit (in states with extended seasons). These vessels would continue to receive the higher benefits associated with limited access to fishing opportunities in the EEZ, and would gain additional economic benefits from fishing in state waters under the more liberal state regulations. Non-permitted for-hire vessels would face increased competition for fishing in state waters, and may experience reduced fishing quality, bookings, and revenue/profit.

Not requiring federally permitted for-hire vessels to comply with federal regulations, if more restrictive than state regulations, when fishing in state waters would be expected to shorten the open season in the EEZ. Projections of the effects on season length are discussed in Section 2.1 and Appendix C. Season reductions would be expected to occur because increased effort in state waters would be expected to increase the harvest of the focus species in state waters. Because of quota management and associated closure when the quota is met, or is projected to be met, any increase in harvest in state waters would necessitate a shorter season in the EEZ unless an off-setting reduction in harvest in the EEZ occurs by these vessels. However, in general, no

federally permitted vessels would be expected to engage in such “self-corrective” behavior because, as previously discussed, of the expected higher value associated with fishing in the EEZ.

Despite the shortening of the season in the EEZ that would be expected to occur, vessels able to fish in both the EEZ and state waters could experience an increase in the number of total fishing days. Because fishing in general for reef fish species is expected to be poorer in state waters than in the EEZ, the loss of one day of harvest in the EEZ would be expected to allow more than one day of harvest in state waters (aside from further discarding concerns). Because fishing opportunities in the EEZ would be adversely affected, from an economic perspective, support for allowing a federally permitted vessel to fish in state waters when prohibited in the EEZ requires consideration of the trade-off in trips and associated revenue. Specifically, support would conclude the expectation that angler demand will exist (i.e., there will be sufficient customers), and either a higher fee may be charged (because fishermen could fish outside their normal season) or there will be a sufficient increase in the number of trips in state waters to offset the losses associated with the shortened season in the EEZ.

Finally, because not all states allow fishing in state waters when the EEZ is closed, only federally permitted vessels that fish off states that remain open would benefit. As shown in Section 3.4, approximately 15 percent of the federally permitted for-hire vessels are in Alabama and Mississippi, states that currently adopt automatically compatible regulations for reef fish. Allowing federally permitted for-hire vessels to continue to fish in state waters may provide an incentive for all states to allow fishing in state waters when the EEZ is closed. The more states that do not have compatible closures, the shorter the season in the EEZ and the greater the loss in economic benefits associated thereof.

In summary, from the perspective of the for-hire fleet, federally permitted for-hire vessels have an economic advantage over non-permitted for-hire vessels under current regulation. Not requiring federally permitted for-hire vessels to comply with federal regulations, if more restrictive than state regulations, when fishing in state waters would increase the economic advantage of the federally permitted for-hire vessels. Some federally permitted for-hire vessels may gain economic benefits (those that fish from states with non-compatible regulations), some federally permitted for-hire vessels would lose economic benefits (those that fish from states with compatible regulations; these vessels would face a shorter season in the EEZ and lack corresponding compensation opportunities in state waters), and some non-permitted for-hire vessels may lose economic benefits (those that fish from states with non-compatible regulations as a result of increased competition and potentially deteriorating quality of fishing in state waters due to the influx of federally permitted vessels). Available data does not support a determination that unique communities, with associated businesses, exist around these different vessel groups, or to demonstrate that the gain by one group is more than, or more important than, the loss to any other group. Thus, overall, the net economic effect for the for-hire sector and associated businesses is indeterminate. However, no improvement in equity would be expected to occur.

Private Sector

Private anglers, and associated businesses, would be expected to experience a net loss in economic benefits if federally permitted for-hire vessels are not required to comply with federal

regulations, if more restrictive than state regulations, when fishing in state waters. All private anglers would experience a shorter season in the EEZ. Private anglers who fish from states with non-compatible regulations could continue to fish in poorer quality (compared to the EEZ) state waters. The quality of fishing in state waters, and associated economic benefits, may further decline as a result of increased harvest and competition by federally permitted for-hire vessels. Private anglers who fish from states with compatible regulations would experience a net decrease in fishing days and economic benefits.

Synthesis and Summary

In total, not requiring federally permitted for-hire vessels comply with federal regulations, if more restrictive than state regulations, when fishing in state waters would pit the needs, benefits, and values of different groups and businesses against each other and provide an incentive for all states to establish non-incompatible regulations for some species of federally managed reef fish. Because of the size of the private sector compared to the for-hire sector, the net result across all sectors would be an expected loss in economic benefits relative to **Alternative 1**. The magnitude of the net expected loss in economic benefits would be expected to increase the more species encompassed by the proposed alternative. Thus, **Preferred Alternative 3** would be expected to result in the greatest loss of economic benefits, followed by **Alternative 2** if both options are adopted, and **Alternative 2 Option a** and **Alternative 2 Option b**. Available data does not support a determination of which option under **Alternative 2** would be expected to result in the greatest economic loss relative to **Alternative 1**.

Available data, however, does not support quantitative estimation of these economic losses. As previously discussed, Appendix C contains estimates of the potential effect of the proposed action on the season length for red snapper and gag. However, as previously discussed, these alternatives would not be expected to eliminate fishing opportunities, only transfer these opportunities from one group of vessels or anglers to other groups. Overall, total harvest would not be expected to be reduced, which is typically an intended consequence of fishing restrictions. In fact, elimination of the compliance requirement could reduce the effectiveness of federal control on total recreational harvest, resulting in excess harvest, particularly for red snapper for which limiting harvest has been particularly difficult, and precipitate additional adverse economic consequences. Because the effect of the proposed action will be transference of benefits, not absolute loss, basing evaluation of the economic effects simply on the projected reduction of the season in the EEZ would be inappropriate.

Instead, the analysis requires focus on the potential differences in value among user groups, states, etc. Unfortunately, the necessary data to quantify these differences are not available. As a result, the net expected economic effects can only be qualitatively described.

Extending the provision requiring vessels to comply with federal regulations, if more restrictive than state regulations, when fishing in state waters to private recreational anglers would be expected to reduce the harvest from state waters and reduce the length of any quota-induced seasonal closure in the EEZ. This would be expected to increase economic benefits and reduce the inequity that exists associated with the current unequal management of the private and for-hire sectors. However, extending the requirement to comply with the more restrictive federal regulations to private recreational anglers would require the development of a permit system to

establish/designate access rights to fishing in the EEZ for private anglers. The cost to develop and implement said permit system for private anglers may exceed the benefits of extending this requirement to private anglers. Neither the cost to develop such a program, nor the benefits of its implementation, can be calculated with available information. Nevertheless, if the costs to develop and implement a permit system for private anglers are less than the economic benefits of extending the subject harvest restriction to private anglers, then **Alternative 4** would be expected to result in greater net economic benefits than **Alternative 1**, **Alternative 2** (either or both options), and **Preferred Alternative 3**.

4.1.4 Direct and Indirect Effects on the Social Environment

This action affects participants in the recreational sector differently depending on the fishing regulations of the participant's state, the amount of fishing allowed to take place in other Gulf states with less restrictive regulations than federal regulations, and the type of vessel used to access the fishery. Each alternative would result in a different trade-off in effects such that positive effects would result for some participants and negative effects for others, depending on these three factors. The effects correspond with fishing opportunities, as measured by the length of the fishing season for a given species. Positive effects would be associated with more fishing opportunities during a longer fishing season and negative effects with a shorter fishing season.

If a state or states adopt less restrictive regulations than federal regulations for any reef fish species, NMFS modifies the season length projection to account for the fish landed under those inconsistent regulations. Thus, the overall federal season is shortened, decreasing fishing opportunities in federal waters for all anglers. Although the for-hire permit condition applies to the recreational harvest of all reef fish species, impacts would only occur should inconsistent regulations adopted by a state affect the length of the Gulf-wide federal season for a given reef fish species. Currently, gag and red snapper are the only reef fish species for which Gulf states have adopted different recreational regulations for their state waters.

Anglers fishing from all recreational vessels share the impacts of a shortened federal season resulting from additional fishing allowed by states with inconsistent regulations for that particular species (**Alternative 1**). This is an issue of subtractability, where additional fishing by anglers in states with more generous regulations than federal regulations reduces the amount of fish available to be harvested by each angler in the sector as a whole. This is primarily a problem for the red snapper recreational season which must be closed when the recreational quota is reached (Magnuson-Stevens Act, Section 407d).

Additional impacts are not expected from retaining **Alternative 1**, however, three Gulf states currently have less restrictive fishing regulations than the federal regulations. Table 4.1.4.1 compares anglers' fishing opportunities under **Alternative 1**, depending on the type of vessel permit and whether they are fishing from a state with consistent or inconsistent regulations. Fishing opportunities are greatest for anglers fishing from private vessels in states that have not adopted consistent regulations, because these anglers may fish in state and federal waters during the federal season, as well as take advantage of the additional fishing opportunities provided in their state's waters. Additional fishing opportunities are also provided to for-hire vessels that only possess their respective state license, which may not harvest reef fish from the EEZ, but are not prohibited from landing reef fish from open state waters. On the other hand, in states with

consistent regulations, fishing opportunities do not vary between anglers fishing from private vessels and those fishing from federally permitted for-hire vessels.

Table 4.1.4.1. Comparison of fishing opportunities (Alternative 1) allowed among recreational vessels in state and federal waters, in states with consistent and inconsistent regulations for red snapper.

	All States during federal season		States with extended season	
Fishing from:	State waters	EEZ	State waters	EEZ
Private vessels	Yes	Yes	Yes	No
State-licensed for-hire vessels	Yes	No	Yes	No
Federally permitted for-hire vessels	Yes	Yes	No	No

Alternative 2 would rescind the provision for for-hire vessels for red snapper (**Option a**) and/or gag (**Option b**), and **Preferred Alternative 3** would rescind the provision for all reef fish. Because gag and red snapper are currently the only reef fish species for which states have adopted different recreational regulations than federal regulations, selection of both options under **Alternative 2** would result in the same impacts as **Preferred Alternative 3** in the short term.

Accounting for greater than 95% of the gag recreational landings, Florida is the only state to have adopted inconsistent regulations for gag. To date, Florida's inconsistent regulations for gag have not affected the length of the federal fishing season, nor resulted in an overage of the gag recreational quota (Table 1.1.2 and Appendix C). Thus, no effect on the distribution of fishing opportunities would be expected from selecting **Alternative 2 Option b**, or **Preferred Alternative 3**, as pertains to gag.

The distribution of fishing opportunities for red snapper would be affected by **Alternative 2 Option a**, and **Preferred Alternative 3**. Compared with **Alternative 1**, fishing opportunities for federally permitted for-hire vessels in states with inconsistent regulations would be expected to increase by removing the permit condition for red snapper. These increased opportunities would be offset by a reduction to the length of the Gulf-wide red snapper fishing season, effectively decreasing the fishing opportunities for all anglers in states that have adopted consistent regulations. Thus, **Alternative 2 Option a** and **Preferred Alternative 3** would provide the greatest benefits to for-hire vessels in states with inconsistent regulations by allowing these vessels to land red snapper when all other recreational vessels in their state may also harvest red snapper. At the same time, these increased opportunities would be countered by reduced fishing opportunities for all recreational anglers, who would share in the impact of a shorter season in federal waters.

Essentially, **Alternative 4** would impose the for-hire permit condition on all recreational vessels that intend to harvest reef fish from federal waters. This would eliminate the advantage enjoyed by private recreational vessels which, in addition to the opportunities afforded by federal regulations, are able to harvest reef fish under any additional fishing opportunities provided by a state's regulations in state waters. For example, additional fishing opportunities may be provided by a state through a longer open season or larger bag limit than allowed by federal

regulations. As discussed above, this would primarily affect the harvest of red snapper. Thus, under **Alternative 4**, recreational anglers would have to decide between participating in the federal red snapper season (fishing in both state and federal waters), and only fishing for reef fish in state waters under state regulations, if different than federal regulations. It is assumed that states would be more likely to adopt consistent regulations by removing the ability for anglers to harvest red snapper under both federal and extended state regulations. Compared to **Alternative 1**, a longer federal fishing season would be expected to result under **Alternative 4**, providing all recreational anglers with increased fishing opportunities in federal waters. In turn, **Alternative 4** would be expected to negatively affect anglers fishing from private vessels who currently enjoy increased fishing opportunities in states that have not adopted consistent regulations, by removing the opportunity to fish under both federal and extended state water regulations.

In summary, the red snapper season length would be expected to be longest under **Alternative 4**, followed by **Alternative 1**. The season length would be shortest under **Alternative 2, Option a** and **Preferred Alternative 3**. Tradeoffs in fishing opportunities would occur among participants under each alternative, depending on the amount of fishing that takes place in all state waters outside of the federal season, the permit associated with the vessel, and whether the participant's state has adopted consistent or inconsistent regulations.

4.1.5 Direct and Indirect Effects on the Administrative Environment

Alternative 1 will not result in any changes to the direct or indirect effects on the administrative environment, because the regulations and permit provisions regarding federally permitted charter and headboat reef fish fishing would remain unchanged. The Amendment 30B administrative environment effects section stated that implementation of the permit provision would positively affect the administrative environment by reducing the likelihood of landings overages and overfishing occurring, and increasing the likelihood that accountability measures would not be triggered. However, as discussed in the Introduction and in Section 4.1.2 of this document, the 30B permit provision has not been effective in reducing overharvests. Therefore, partially rescinding the provision under **Alternative 2** or completely rescinding it under **Preferred Alternative 3** will have no direct effect on the federal administrative environment because, based on landings of recreationally caught reef fish since 2009, the likelihood of overharvests will remain unchanged. Under **Preferred Alternative 3**, on-the-water enforcement would be simplified in states with extended recreational fishing seasons because it would no longer be necessary to differentiate between federally permitted and non-federally permitted charter and headboats operating in state waters. **Alternative 2** would also simplify on-the-water enforcement for states with extended recreational fishing seasons for harvest of red snapper (**Option a**) and/or gag (**Option b**), but for other species it would retain the requirement for enforcement officers to determine if a vessel fishing in state waters during a federal closed season has a federal reef fish for-hire permit. **Alternative 4** would have an increased impact on the federal administrative environment by creating a federal recreational reef fish permit. Such a permit, once established, could provide indirect benefits to data collection surveys by identifying the universe of private vessels that fish offshore for reef fish.

4.2 Cumulative Effects Analysis

The current action to modifying the permit provision for the Gulf reef fish for-hire permit is likely to have varying effects. While the overall impact on the physical environment may be neutral to status quo if the fishing effort is constrained to the quota, it is likely that the spatial shift of fishing effort will redistribute the impacts into the state waters. Thus, the physical environment in the more shallow state waters could experience greater negative effects based on the increased fishing effort. Similar to the effects on the physical environment, the effects on the biological environment will be related to the changes in fishing effort and ability to constrain harvest to the quotas. In states with inconsistent regulations, the negative effects to the biological environment may increase in conjunction with the fishing effort. Pertaining to the economic environment, because of the size of the private sector compared to the for-hire sector, the net result across all sectors would be an expected loss in economic benefits relative to not modifying the provision. As for the social environment, modifying the provision would provide the greatest benefits to for-hire vessels in states with inconsistent regulations by allowing these vessels to land red snapper when all other recreational vessels in their state may also harvest red snapper. At the same time, these increased opportunities would be compensated for through reduced fishing opportunities for all recreational anglers, who would share in the potentially negative impact of a shorter season in federal waters. Cumulatively, these effects are not likely to substantially change the amount of fishing effort or landings in the recreational sector of the reef fish fishery; however, the action is not likely to greatly benefit the considered environments. In addition, removing the provision takes away any incentive for states to maintain consistent regulations and more inconsistent regulations would make it more difficult for NMFS project when the harvest will reach the quota.

In consideration of the past, present, and reasonably foreseeable actions, this action is not likely to have substantive cumulative effects. However, its addition must be considered in management decisions. The provision was implemented in Amendment 30B (GMFMC 2008b) as a measure to constrain the harvest by requiring vessels with federal commercial or charter reef fish permits comply with more restrictive federal reef fish regulations if state regulations are different when fishing in state waters. Additional pertinent actions are summarized in the history of management in Section 1.3. Currently two actions are being considered by the Council concerning the allocation of red snapper quota between the recreational and commercial sectors, and potential sector separation for the for-hire vessels. If the recreational sector was allocated more red snapper quota, then it is possible for the effects of this action to increase as the fishing effort increases. If the for-hire vessels are separated from the private recreational sector, then this action may no longer be relevant as the for-hire vessels would likely have different regulations from the private anglers.

Additional considerations for cumulative effects may include the impacts of the Deepwater Horizon MC252 oil spill and potential climate change issues. Deepwater Horizon MC252 oil spill may not be known for several years. If there has been a reduction in spawning success in 2010, the impacts may not begin to manifest themselves until several years later when the fish that would have spawned in 2010 would have become large enough to enter the adult spawning population and be caught by anglers. For example, the stock assessment for red snapper (SEDAR 31) was completed in May 2013 and detected a slight reduction of recruitment for 2011 and 2012. Recruitment occurs at approximately 3 years of age, so a year class failure in 2010

may have begun to be detected in the spawning populations for this assessment. However, it is more likely to be detected in the next stock assessment. Eventually, the impacts would result in reduced fishing success and reduced spawning potential, and would need to be taken into consideration in future assessments and actions. The combination of relieving the restrictions in the current action and the recent increase in the red snapper quota, and the short-term increase in natural mortality to the stock from the oil spill, could negatively impact the stock. In a recent study, Weisberg et al. (2014) suggested the hydrocarbons associated with Deepwater Horizon MC252 oil spill did transit onto the Florida shelf and may be associated with the occurrences of reef fish with lesions and other deformities. The overall impact of the oil spill may not be realized for quite some time and the studies are just now being published.

There is a large and growing body of literature on past, present, and future impacts of global climate change induced by human activities. Some of the likely effects commonly mentioned are sea level rise, increased frequency of severe weather events, and change in air and water temperatures. The Environmental Protection Agency's climate change web page provides basic background information on these and other measured or anticipated effects. In addition, the Intergovernmental Panel on Climate Change has numerous reports addressing their assessments of climate change (http://www.ipcc.ch/publications_and_data/publications_and_data.shtml). Global climate changes could have significant effects on Gulf of Mexico fisheries; however, the extent of these effects is not known at this time. Possible impacts include temperature changes in coastal and marine ecosystems that can influence organism metabolism and alter ecological processes such as productivity and species interactions; changes in precipitation patterns and a rise in sea level which could change the water balance of coastal ecosystems; altering patterns of wind and water circulation in the ocean environment; and influencing the productivity of critical coastal ecosystems such as wetlands, estuaries, and coral reefs (Kennedy et al. 2002). It is unclear how climate change would affect reef fishes, and likely would affect species differently. Climate change can affect factors such as migration, range, larval and juvenile survival, prey availability, and susceptibility to predators. In addition, the distribution of native and exotic species may change with increased water temperature, as may the prevalence of disease in keystone animals such as corals and the occurrence and intensity of toxic algae blooms. Hollowed et. al (2013) provided a review of projected effects of climate change on the marine fisheries and dependent communities. Integrating the potential effects of climate change into the fisheries assessment is currently difficult due to the time scale differences (Hollowed et. al 2013). The fisheries stock assessments rarely project through a time span that would include detectable climate change effects. While climate change may significantly impact Gulf of Mexico reef fish species in the future, but the level of impacts cannot be quantified at this time, nor is the time frame known in which these impacts would occur. Actions from this amendment are not expected to significantly contribute to climate change through the increase or decrease in the carbon footprint from fishing.

The effects of the proposed action are, and will continue to be, monitored through collection of landings data by NMFS, stock assessments and stock assessment updates, life history studies, economic and social analyses, and other scientific observations. Landings data for the recreational sector in the Gulf of Mexico are collected through Marine Recreational Fisheries Survey and Statistics (MRFSS), NMFS's Head Boat Survey, and the Texas Marine Recreational Fishing Survey. MRFS is currently being replaced by the Marine Recreational Information Program (MRIP), a program designed to improve the accuracy of monitoring of recreational

fishing. Commercial data are collected through trip ticket programs, port samplers, and logbook programs, as well as dealer reporting through the IFQ program.

CHAPTER 5. REGULATORY IMPACT REVIEW

5.1 Introduction

The National Marine Fisheries Service (NMFS) requires a Regulatory Impact Review (RIR) for all regulatory actions that are of public interest. The RIR does three things: (1) it provides a comprehensive review of the level and incidence of impacts associated with a proposed or final 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 the proposed regulations are a "significant regulatory action" under the criteria provided in Executive Order (E.O.) 12866 and provides some information that may be used in conducting an analysis of impacts on small business entities pursuant to the Regulatory Flexibility Act (RFA). This RIR analyzes the impacts that the proposed management alternatives in this framework action would be expected to have on the red snapper component of the Gulf of Mexico reef fish fishery.

5.2 Problems and Objectives

The problems and objectives addressed by this proposed framework action are discussed in Section 1.2.

5.3 Description of Fisheries

A description of the red snapper component of the Gulf of Mexico (Gulf) reef fish fishery is provided in Section 3.3.

5.4 Impacts of Management Measures

A detailed discussion of the expected economic effects of each action and alternative in this proposed amendment is provided in Chapter 4.

This proposed framework amendment would be expected to result in an unquantifiable net reduction in economic benefits (revenue, profits, and angler consumer surplus). The total economic benefits associated with the Gulf recreational reef fish fishery would not be significantly reduced because the proposed action would not change the total allowable harvest of Gulf reef fish species. Instead, portions of the allowable harvest, and associated economic benefits, would be effectively redistributed from traditional fishermen and businesses to those in other states. Private anglers Gulf-wide would be expected to experience reduced fishing opportunities in the Exclusive Economic Zone (EEZ). For states with regulations that are not

compatible with federal regulations (currently, Texas, Louisiana, and Florida), private anglers would continue to have the opportunity to transfer their effort to state waters, though the associated quality (value) of these experiences would be expected to be less than that received from fishing in the EEZ, where both the abundance and quality of reef fish are generally higher. Private anglers in the other states (currently Alabama and Mississippi), would be forced to pursue the fishing for these species in other states, at a higher cost, target alternative species, or forgo fishing in lieu of other recreational activities. Because the pursuit of these activities is currently an option to these anglers, yet not chosen, their selection would only occur as a second best choice and, therefore, result in an accompanying reduction of economic benefits (consumer surplus).

Generally, for-hire anglers would be expected to also experience a reduction in economic benefits. For-hire anglers who fish off states with compatible regulations would, similar to private anglers, experience reduced seasons and associated economic benefits. For-hire anglers who fish in the EEZ off states with non-compatible regulations would also experience a reduction in fishing opportunities, and associated economic benefits, in the EEZ. Although these opportunities would be replaced by increased opportunities in state waters, these opportunities would generally be of lower quality and, therefore, of lower economic value. If this were not true, such opportunities (fishing in state waters) are expected to already exist, yet not taken, because there is no indication that the demand for fishing in state waters exceeds the supply of available vessels. Additionally, an influx of effort in state waters by federally permitted vessels may result in deterioration of the fishing quality in state waters for all anglers.

The net economic effect on for-hire businesses cannot be determined. Federally permitted for-hire vessels fishing off states with compatible regulations would be expected to experience a net decrease in revenue and profit as a result of shorter fishing seasons in the EEZ. For-hire vessels in states with non-compatible regulations that do not have the federal for-hire permit may experience reduced revenue and profit as a result of increased competition from federally permitted fishing vessels and potentially decreased fishing quality. Federally permitted for-hire vessels in states with non-compatible regulations may experience in revenue and profit if demand for fishing in state waters, and associated revenue, exceeds the loss associated with reducing fishing opportunities in the EEZ.

5.5 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.....	\$30,000
NMFS administrative costs of document preparation, meetings and review	\$20,000
TOTAL	\$50,000

The Council and federal costs of document preparation are based on staff time, travel, printing, and any other relevant items where funds were expended directly for this specific action. There are no permit requirements proposed in this regulatory amendment. Although additional enforcement scrutiny of the recreational harvest of reef fish may occur as a result of the proposed re-opening, under a fixed enforcement budget, any additional enforcement activity would require a redirection of current resources rather than an expenditure of new funds.

5.6 Determination of Significant Regulatory Action

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

CHAPTER 6. REGULATORY FLEXIBILITY ACT ANALYSIS

6.1 Introduction

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

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

6.2 Statement of the need for, objective of, and legal basis for the proposed action

The problems and objective of this proposed action are provided in Chapter 1. In summary, the objective of this proposed action is to increase access to reef fish by federally permitted for-hire vessels in the Gulf of Mexico (Gulf), reduce user conflicts among segments of the recreational sector, and increase the ability of states to manage fishing activities in state waters. The Magnuson-Stevens Fishery Conservation and Management Act provides the statutory basis for this proposed action.

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

This rule, if implemented, would be expected to directly affect Gulf for-hire vessels that harvest reef fish. A federal reef fish for-hire vessel permit is required for for-hire vessels to harvest reef fish in the Gulf Exclusive Economic Zone (EEZ). On February 13, 2014, 1,340 vessels had a valid or renewable federal reef fish for-hire permit. The for-hire fleet is comprised of charter boats, which charge a fee on a vessel basis, and headboats, which charge a fee on an individual angler (head) basis. Although the for-hire permit application collects information on the primary method of operation, the resultant permit itself does not identify the permitted vessel as either a headboat or a charter vessel, operation as either a headboat or charter vessel is not restricted by the permitting regulations, and vessels may operate in both capacities. However, only federally permitted headboats are required to submit harvest and effort information to the National Marine Fisheries Service (NMFS) Southeast Region Headboat Survey (SRHS). Participation in the SRHS is based on determination by the Southeast Fisheries Science Center that the vessel primarily operates as a headboat. Seventy vessels were registered in the SHRS as of March 1, 2013. As a result, 1,270 of the vessels with a valid or renewable reef fish for-hire permit are expected to operate as charter boats. The average charter boat is estimated to earn approximately \$83,000 (2013 dollars) in gross annual revenue and the average headboat is estimated to earn approximately \$251,000 (2013 dollars).

NMFS has not identified any other small entities that would be expected to be directly affected by this proposed action.

The Small Business Administration has established size criteria for all major industry sectors in the U.S., including fish harvesters. A business involved in the for-hire fishing industry is classified as a small business if it is independently owned and operated, is not dominant in its field of operation (including its affiliates), and has combined annual receipts not in excess of \$7.0 million (NAICS code 487210, fishing boat charter operation). All for-hire vessels expected to be directly affected by this proposed rule are believed to be small business entities.

6.4 Description of the projected reporting, record-keeping and other compliance requirements of the proposed action, including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for the preparation of the report or records

This proposed action would not establish any new reporting, record-keeping, or other compliance requirements.

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

No duplicative, overlapping, or conflicting federal rules have been identified.

6.6 Significance of economic impacts on a substantial number of small entities

***Substantial number criterion**

This proposed action would be expected to directly affect all for-hire vessels that possess a valid or renewable reef fish for-hire permit. Because all vessels in this fleet would be affected, this proposed action would be expected to affect a substantial number of small entities.

Significant economic impacts

The outcome of “significant economic impact” can be ascertained by examining two factors: disproportionality and profitability.

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

All entities expected to be directly affected by the measures in this proposed action are determined for the purpose of this analysis to be small business entities, so the issue of disproportionality does not arise in the present case.

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

This proposed action would be expected to increase revenue and profit for some for-hire vessels that fish from states with regulations that are non-compatible with federal regulations and decrease revenue and profits for vessels that fish from states with compatible regulations. Of the 1,340 for-hire vessels expected to be directly affected by this proposed action, approximately 200 fish from states with compatible regulations. Although this proposed action would be expected to reduce the length of the open season in the Exclusive Economic Zone (EEZ), vessels that fish from states with non-compatible regulations would be able to continue to fish for the affected species in state waters. If sufficient demand for for-hire services in state waters develops, these vessels may be able to experience a net increase in trips, revenue, and profit despite the shorter federal season. Support by members of the industry during the hearing process for this proposed action substantiates this expectation. This opportunity would exist for the majority of the federally permitted for-hire fleet, though the opportunity for increased business would not be expected to be uniformly distributed across all Gulf states, or within individual states, because of differences in the distribution and availability of the affected species.

For-hire vessels that fish from states with compatible regulations would be expected to experience a reduction in trips, revenue, and profit because of the shorter open season in the EEZ. It may be possible for these vessels to substitute trips targeting other species. However, because reef fish, notably red snapper, are believed to be the most important target species for many of these vessels, substitution opportunities would be expected to be limited. As a result, vessels in these states would be expected to experience a net reduction in revenue and profit.

The expected increase or decrease in revenue or profit for these vessels cannot be meaningfully quantified with available data. The primary uncertainties that preclude the estimation of these results include the full extent of regulatory incompatibility (three states are known to be incompatible, though the duration of incompatibility for one state has not been established yet; also, this proposed action would provide an incentive for all states to adopt non-compatible regulations), the development of demand for for-hire services in state waters when regulations in the EEZ are more severe (it has not been shown that demand for services in state waters exceeds the current supply of vessels able to fish in state waters), and the ability for substitute activities for vessels in states with compatible regulations.

6.7 Description of the significant alternatives to the proposed action and discussion of how the alternatives attempt to minimize economic impacts on small entities

In addition to the proposed action, three alternatives, including the no action alternative, were considered. The first alternative to the proposed action, the no action alternative, would not rescind the provision requiring vessels with a Gulf federal for-hire permit for reef fish to comply with federal recreational reef fish regulations, if more restrictive than state regulations, when fishing in state waters. As a result, this alternative would not achieve the Gulf of Mexico Fishery Management Council's (Council's) objectives of increasing access to reef fish by federally permitted for-hire vessels in the Gulf, reducing user conflicts among segments of the recreational sector, or increasing the ability of states to manage fishing activities in state waters.

The second alternative to the proposed action would have limited the species encompassed by the proposed action to just red snapper, just gag, or just both species rather than all reef fish. Limiting the scope of the proposed action would be expected to reduce the adverse economic effects expected to accrue to the proposed action. However, this alternative was not selected because it would be less successful in achieving the Councils' objectives.

The third alternative to the proposed action would have extended the provision to comply with federal recreational reef fish regulations, if more restrictive than state regulations, when fishing in state waters to private anglers. This alternative would be expected to reduce the adverse economic effects expected to accrue to the proposed action. However, this alternative was not selected because it would not increase access to reef fish by federally permitted for-hire vessels or increase the ability of states to manage fishing activities in state waters.

CHAPTER 7. LIST OF AGENCIES AND PERSONS CONSULTED

PREPARERS (Interdisciplinary Planning Team)

Name	Expertise	Responsibility	Agency
Steven Atran	Fishery Biologist	Team Lead – Amendment development, introduction, social analyses	GMFMC
Cynthia Meyer	Biologist	Co-Team Lead – Amendment development, effects analysis, and cumulative effects analysis	SERO
Stephen Holiman	Economist	Economic analyses, Regulatory Flexibility Act analysis, Regulatory Impact Review	SERO
Ava Lasseter	Anthropologist	Social analyses	GMFMC
Mara Levy	Attorney	Legal compliance and review	NOAA GC
Christina Package-Ward	Anthropologist	Social analyses	SERO
Scott Sandorf	Technical Writer Editor	Regulatory writer	SERO
Noah Silverman	Natural Resource Management Specialist	NEPA compliance	SERO
Andy Strelcheck	Biologist	Data analysis	SERO
David Dale	Biologist	EFH review	SERO
Andrew Herndon	Protected Resources	Protected species review	SERO
Assane Diagne	Economist	Reviewer	GMFMC
Carrie Simmons	Fishery biologist	Reviewer	GMFMC
Kenneth Brennan	Headboat survey coordinator	Reviewer	SEFSC
Christopher Liese	Economist	Reviewer	SEFSC

The following have or will be consulted.

National Marine Fisheries Service

- Southeast Fisheries Science Center
- Southeast Regional Office
 - Protected Resources
 - Habitat Conservation
 - Sustainable Fisheries

NOAA General Counsel
U.S. Coast Guard

CHAPTER 8. REFERENCES

Adamski, K.M., J.A. Buckel, G.B. Martin, D.W. Ahrenholz and J.A. Hare. 2012. Fertilization dates, pelagic larval durations and growth in gag (*Mycteroperca microlepis*) from North Carolina, USA. *Bulletin of Marine Science* 88(4): 971-986.

American Fisheries Society. 2013. Common and Scientific Names of Fishes from the United States, Canada, and Mexico. Seventh Edition. Special Publication 34. Bethesda, MD.

Ault, J. S., S. G. Smith, G. A. Diaz, and E. Franklin. 2003. Florida hogfish fishery stock assessment. University of Miami, Rosenstiel School of Marine Science. Contract No. 7701 617573 for Florida Marine Research Institute, St. Petersburg, Florida.

Barnette, M. C. 2001. A review of the fishing gear utilized within the Southeast Region and their potential impacts on essential fish habitat. NOAA Technical. Memorandum. NMFS-SEFSC-449. National Marine Fisheries Service. St. Petersburg, Florida.

Carter, D. W., and Liese, C. 2012. The Economic Value of Catching and Keeping or Releasing Saltwater Sport Fish in the Southeast USA. *North American Journal of Fisheries Management*, 32:4, 613-625. Available at: <http://dx.doi.org/10.1080/02755947.2012.675943>

Casey, J.P., G.R. Poulakis and P.W. Stevens. 2007. Habitat use by juvenile gag, *Mycteroperca microlepis* (Pisces: Serranidae), in subtropical Charlotte Harbor, Florida (USA). *Gulf Caribbean Research* 19:1-9.

Cass-Calay, S. L., and M. Bahnick. 2002. Status of the yellowedge grouper fishery in the Gulf of Mexico. Contribution SFD 02/03 – 172. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Southeast Fisheries Science Center. Miami, Florida.

Chester, W. 2001. Full box! One hundred years of fishing and boat building in Bay County. Fire in the Water Publishing Company, South port, Florida. 314 p.

Clapp, R. B., R. C. Banks, D. Morgan-Jacobs, and W. A. Hoffman. 1982. Marine birds of the southeastern United States and Gulf of Mexico. U.S. Dept. of Interior, Fish and Wildlife Service, Office of Biological Services, Washington D.C. FWS/OBS-82/01. 3 vols.

Coleman, F.C., C.C. Koenig, and L.A. Collins. 1996. Reproductive styles of shallow-water grouper (Pisces: Serranidae) in the eastern Gulf of Mexico and the consequences of fishing spawning aggregations. *Environ. Biol. Fish.* 47:129-141.\

EPA. 1999. EPA Region 4: Interim Policy to Identify and Address Potential Environmental Justice Areas. EPA-904-R-99-004.

GMFMC. 1981. Environmental impact statement and fishery management plan for the reef fish resources of the Gulf of Mexico and environmental impact statement. Gulf of Mexico Fishery Management Council, Tampa, Florida.

<http://www.gulfcouncil.org/Beta/GMFMCWeb/downloads/RF%20FMP%20and%20EIS%201981-08.pdf>

GMFMC. 2000. Regulatory amendment to the reef fish fishery management plan to set total allowable catch and management measures for red snapper for the 2000 and 2001 seasons. Gulf of Mexico Fishery Management Council, Tampa, Florida. 55 p.

<http://www.gulfcouncil.org/Beta/GMFMCWeb/downloads/RF%20RegAmend%20-%202000-02.pdf>

GMFMC. 2004a. Amendment 22 to the fishery management plan for the reef fish fishery of the Gulf of Mexico, U.S. waters, with supplemental environmental impact statement, regulatory impact review, initial regulatory flexibility analysis, and social impact assessment. Gulf of Mexico Fishery Management Council. Tampa, Florida.

<http://www.gulfcouncil.org/Beta/GMFMCWeb/downloads/Amend%2022%20Final%2070204.pdf>

GMFMC. 2004b. Final environmental impact statement for the generic essential fish habitat amendment to the following fishery management plans of the Gulf of Mexico: shrimp fishery of the Gulf of Mexico, red drum fishery of the Gulf of Mexico, reef fish fishery of the Gulf of Mexico, stone crab fishery of the Gulf of Mexico, coral and coral reef fishery of the Gulf of Mexico, spiny lobster fishery of the Gulf of Mexico and South Atlantic, coastal migratory pelagic resources of the Gulf of Mexico and South Atlantic. Gulf of Mexico Fishery Management Council. Tampa, Florida.

<http://www.gulfcouncil.org/Beta/GMFMCWeb/downloads/Final%20EFH%20EIS.pdf>

GMFMC. 2005. Generic amendment number 3 for addressing essential fish habitat requirements, habitat areas of particular concern, and adverse effects of fishing in the following fishery management plans of the Gulf of Mexico: shrimp fishery of the Gulf of Mexico, United States waters, red drum fishery of the Gulf of Mexico, reef fish fishery of the Gulf of Mexico, coastal migratory pelagic resources (mackerels) in the Gulf of Mexico and South Atlantic, stone crab fishery of the Gulf of Mexico, spiny lobster fishery of the Gulf of Mexico and South Atlantic, coral and coral reefs of the Gulf of Mexico. Gulf of Mexico Fishery Management Council. Tampa, Florida.

http://www.gulfcouncil.org/Beta/GMFMCWeb/downloads/FINAL3_EFH_Amendment.pdf

GMFMC. 2007. Final amendment 27 to the reef fish fishery management plan and amendment 14 to the shrimp fishery management plan including supplemental environmental impact statement, regulatory impact review, and regulatory flexibility act analysis. Gulf of Mexico Fishery Management Council. Tampa, Florida. 490 pp with appendices.

<http://www.gulfcouncil.org/Beta/GMFMCWeb/downloads/Final%20RF%20Amend%2027-%20Shrimp%20Amend%2014.pdf>

GMFMC. 2008a. Final reef fish amendment 30A: greater amberjack – revised rebuilding plan, accountability measures; gray triggerfish – establish rebuilding plan, end overfishing, accountability measures, regional management, management thresholds and benchmarks including supplemental environmental impact statement, regulatory impact review, and regulatory flexibility act analysis. Gulf of Mexico Fishery Management Council. Tampa, Florida. <http://www.gulfcouncil.org/docs/amendments/Amend-30A-Final%202008.pdf>

GMFMC. 2008b. Final Amendment 30B: gag – end overfishing and set management thresholds and targets. Red grouper – set optimum yield, TAC, and management measures, time/area closures, and federal regulatory compliance including environmental impact statement, regulatory impact review, and regulatory flexibility act analysis. Gulf of Mexico Fishery Management Council, Tampa, Florida. http://www.gulfcouncil.org/Beta/GMFMCWeb/downloads/Final%20Amendment%2030B%2010_10_08.pdf

GMFMC. 2009. Final amendment 31 to the fishery management plan for reef fish resources in the Gulf of Mexico addresses bycatch of sea turtles in the bottom longline component of the Gulf of Mexico reef fish fishery, includes draft environmental impact statement and regulatory impact review. Gulf of Mexico Fishery Management Council. Tampa, Florida. 261 pp with appendices. <http://www.gulfcouncil.org/Beta/GMFMCWeb/downloads/Final%20Draft%20RF%20Amend%2031%206-11-09.pdf>

GMFMC. 2010. Final regulatory amendment the reef fish fishery management plan to set total allowable catch for red snapper including revised environmental assessment, regulatory impact review, and regulatory flexibility analysis. Gulf of Mexico Fishery Management Council. Tampa, Florida. http://www.gulfcouncil.org/docs/amendments/Final%20Red%20Snapper%20Regulatory%20Amendment%203_26_10.pdf

GMFMC. 2011a. Regulatory amendment to the reef fish fishery management plan to set 2011 total allowable catch for red snapper. Gulf of Mexico Fishery Management Council, Tampa, Florida. <http://www.gulfcouncil.org/docs/amendments/Red%20Snapper%202011%20Regulatory%20Amendment%20-%201-11.pdf>

GMFMC. 2011b. Final generic annual catch limits/accountability measures amendment for the Gulf of Mexico fishery management council's red drum, reef fish, shrimp, coral and coral reefs fishery management plans, including environmental impact statement, regulatory impact review, regulatory flexibility analysis, and fishery impact statement. Gulf of Mexico Fishery Management Council. Tampa, Florida. http://www.gulfcouncil.org/docs/amendments/Final%20Generic%20ACL_AM_Amendment-September%209%202011%20v.pdf

GMFMC. 2011c. Final reef fish amendment 32 – gag grouper – rebuilding plan, annual catch limits, management measures, red grouper – annual catch limits, management measures, and grouper accountability measures. Gulf of Mexico Fishery Management Council. Tampa, Florida.

[http://www.gulfcouncil.org/docs/amendments/Final%20RF32_EIS_October_21_2011\[2\].pdf](http://www.gulfcouncil.org/docs/amendments/Final%20RF32_EIS_October_21_2011[2].pdf)

GMFMC. 2012a. Final amendment 35 to the reef fish fishery management plan for the reef fish resources of the Gulf of Mexico – modifications to the greater amberjack rebuilding plan and adjustments to the recreational and commercial management measures, including an environmental assessment, fishery impact statement, regulatory impact review, and regulatory flexibility act analysis. Gulf of Mexico Fishery Management Council. Tampa, Florida.

http://www.gulfcouncil.org/Beta/GMFMCWeb/downloads/Final_Amendment_35_Greater_Amberjack_Rebuilding_8_May_2012.pdf

GMFMC. 2012b. Framework Action to Set the 2013 Gag Recreational Fishing Season & Bag Limit & Modify the February-March Shallow-Water Grouper Closed Season. Gulf of Mexico Fishery Management Council, 2203 North Lois Avenue, Suite 1100, Tampa, FL 33607.

Available at:

http://www.gulfcouncil.org/fishery_management_plans/reef_fish_management.php.

GMFMC. 2013a. Framework action to set the 2013 red snapper commercial and recreational quotas and modify the recreational bag limit. Gulf of Mexico Fishery Management Council, Tampa, Florida. 81 p.

<http://www.gulfcouncil.org/docs/amendments/Red%20Snapper%20Framework%20Action%20to%20Set%202013%20Quotas.pdf>

GMFMC. 2013b. Framework action to set the 2013 gag recreational fishing season and bag limit and modify the February-March shallow-water grouper closed season. Gulf of Mexico Fishery Management Council, Tampa, Florida. 111 p.

<http://www.gulfcouncil.org/docs/amendments/2013GagRecreationalSeason.pdf>

GMFMC. 2013c. Framework action for a red snapper 2013 quota increase and supplemental recreational season. Gulf of Mexico Fishery Management Council, Tampa, Florida. 87 p.

<http://www.gulfcouncil.org/docs/amendments/Final%20Red%20Snapper%20Framework%20Action%20Set%202013%20Quotas%2008-01-13.pdf>

GMFMC and SAFMC. 1982. Fishery management plan final environmental impact statement for coral and coral reefs. Gulf of Mexico Fishery Management Council. Tampa, Florida; and South Atlantic Fishery Management Council. Charleston, South Carolina.

<http://www.gulfcouncil.org/Beta/GMFMCWeb/downloads/Coral%20FMP.pdf>

- Goodyear, C. P. 1988. The Gulf of Mexico fishery for reef fish species, a descriptive profile. Unpublished report. National Marine Fisheries Service, Southeast Fisheries Center, Miami Laboratory, CRD 87/88-19.
https://grunt.sefsc.noaa.gov/P_QryLDS/DisplayDocuments.jsp?min_series_code=CR&min_record_id=935&direction=next&total_rows=2955&description=SEFSC%20Technical%20Memorandum#
- Gore, R. H. 1992. The Gulf of Mexico: A treasury of resources in the American Mediterranean. Pineapple Press. Sarasota, Florida.
- Hamilton, A. N., Jr. 2000. Gear impacts on essential fish habitat in the Southeastern Region. , National Marine Fisheries Service, Southeast Fisheries Science Center. Pascagoula, Mississippi.
- Hollowed, A. B., Barange, M., Beamish, R., Brander, K., Cochrane, K., Drinkwater, K., Foreman, M., Hare, J., Holt, J., Ito, S-I., Kim, S., King, J., Loeng, H., MacKenzie, B., Mueter, F., Okey, T., Peck, M. A., Radchenko, V., Rice, J., Schirripa, M., Yatsu, A., and Yamanaka, Y. 2013. Projected impacts of climate change on marine fish and fisheries. – ICES Journal of Marine Science, 70: 1023–1037.
- Hood, P.B., A.J. Strelcheck, and P. Steele. 2007. A history of red snapper management in the Gulf of Mexico. Pages 267-284 in W.F. Patterson, III, J.H. Cowan, G.R. Fitzhugh, and D.L. Nieland, editors. Red snapper ecology and fisheries in the U.S. Gulf of Mexico. American Fisheries Society Symposium 60. Bethesda, MD.
- Kennedy, V. S., R. R. Twilley, J. A. Kleypas, J. H. Cowan, Jr., S. R. Hare. 2002. Coastal and Marine Ecosystems and Global Climate Change: Potential Effects on U.S. Resources. Pew Center on Global Climate Change.
- Lindberg W. J., T.K. Frazer, K.M. Portier, F. Vose, L. Loftin, D.J. Murie, D.M. Mason, B. Nagy and M.K. Hart. 2006. Density dependent habitat selection and performance by a large mobile reef fish. Ecol. Appl. 16:731–746.
- McEachran, J.D. and J.D. Fechhelm. 2005. Fishes of the Gulf of Mexico, Vol. 2. University of Texas Press. Austin, Texas.
- Methot, R. D. 2010. User manual for stock synthesis, model version 3.10b. Seattle, Washington The most recent version of this manual and software is available at <http://nft.nefsc.noaa.gov/Download.html> .
- Muller, R. G., M. D. Murphy, J. de Silva, and L. R. Barbieri. 2003. Final report submitted to the national marine fisheries service, the Gulf of Mexico fishery management council, and the South Atlantic fishery management council as part of the southeast data, assessment, and review (SEDAR) iii. Florida Fish and Wildlife Conservation Commission, FWC-FMRI Report: IHR 2003-10. Florida Fish and Wildlife Research Institute. St. Petersburg, Florida.

National Commission. 2010. The use of surface and subsea dispersants during the BP Deepwater Horizon oil spill. National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling (National Commission). Staff Working Paper No. 4.

<http://www.oilspillcommission.gov/sites/default/files/documents/Updated%20Dispersants%20Working%20Paper.pdf>

NMFS. 2002. Status of red grouper in United States waters of the Gulf of Mexico during 1986-2001, revised. Contribution No. SFD-01/02-175rev. National Marine Fisheries Service, Southeast Fisheries Science Center. Miami, Florida.

NMFS. 2005. Endangered Species Act – Section 7 consultation on the continued authorization of reef fish fishing under the Gulf of Mexico reef fish fishery management plan and proposed amendment 23. February 15, 2005. National Marine Fisheries Service. St. Petersburg, Florida.

NMFS. 2007. Final model for Gulf of Mexico gag grouper as recommended by the SEDAR Grouper Review Panel: revised results and projections. NOAA Fisheries Service, Southeast Fisheries Science Center, Miami, Florida.

NMFS. 2009. Biological Opinion - the continued authorization of reef fish fishing under the Gulf of Mexico reef fish fishery management plan, including Amendment 31, and a rulemaking to reduce sea turtle bycatch in the Eastern Gulf bottom longline component of the fishery. October 13, 2009. National Marine Fisheries Service. St. Petersburg, Florida. Available at:

<http://sero.nmfs.noaa.gov/pr/esa/Fishery%20Biops/2009%20GOM%20Reef%20Fish%20Re-in%20BO.pdf>

NMFS. 2010a. 2010 Recreational Red Snapper Quota Closure Analysis – Fall Reopening. SERO-LAPP-2010-04. Southeast Regional Office, National Marine Fisheries Service. St. Petersburg, Florida. Available at:

http://sero.nmfs.noaa.gov/sf/pdfs/2010_Recreational_Red_Snapper_Quota_Closure_Analysis_Fall_Reopening.pdf

NMFS. 2010b. Environmental assessment, regulatory impact review, and regulatory flexibility act analysis for a temporary rule to implement measures to limit the Gulf of Mexico gag commercial and recreational harvests and suspend the red grouper individual fishing quota multi-use allocation. National Marine Fisheries Service, Southeast Regional Office. St. Petersburg, Florida.

NMFS. 2011a. Biological opinion on the continued authorization of Reef Fish fishing under the Gulf of Mexico Reef Fish Fishery Management Plan. September 30, 2011. Available at:

<http://sero.nmfs.noaa.gov/pr/esa/Fishery%20Biops/03584%20GOM%20Reef%20Fish%20BiOp%202011%20final.pdf>

NMFS. 2012a. Gulf of Mexico 2011 red snapper individual fishing quota annual report. SERO-LAPP-2012-04. Southeast Regional Office, National Marine Fisheries Service, 263 13th Avenue South, St. Petersburg, FL 33701. 42 pp. Available at:

http://sero.nmfs.noaa.gov/sf/ifq/2011_RS_AnnualReport_Final.pdf.

NMFS. 2013. Gulf of Mexico 2012 Grouper-Tilefish Individual Fishing Quota Annual Report. Available at: http://sero.nmfs.noaa.gov/sustainable_fisheries/lapp_dm/documents/pdfs/2014/grouper_tilefish_ifq_2012_annual_report.pdf

NOAA. 2010. Deepwater Horizon Oil: Characteristics and Concerns. NOAA Office of Response and Restoration, Emergency Response Division. 2 p. http://www.noaa.gov/deepwaterhorizon/publications_factsheets/documents/OilCharacteristics.pdf

O'Hop, J., M. Murphy, and D. Chagaris. 2012. The 2012 stock assessment report for yellowtail snapper in the south Atlantic and Gulf of Mexico. Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute, St. Petersburg, Florida.

Parrack, N.C. and D.B. McClellan. 1986. Trends in Gulf of Mexico red snapper population dynamics, 1979-85. National Marine Fisheries Service, Southeast Fisheries Center, Miami, Florida. Coastal Resources Division Contribution No. CRD-86/87-4. 116 p.

Porch, C. E., and S. L. Cass-Calay. 2001. Status of the vermilion snapper fishery in the Gulf of Mexico – assessment 5.0. Sustainable Fisheries Division Contribution No. SFD-01/01-129. National Marine Fisheries Service, Southeast Fisheries Science Center. Miami, Florida.

Porch, C. E., A. M. Eklund, and G. P. Scott. 2003. An assessment of rebuilding times for goliath grouper. Contribution: SFD 2003-0018. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Southeast Fisheries Science Center. Miami, Florida.

Rico-Martínez, R., T.W. Snell, and T.L. Shearer. 2013. Synergistic toxicity of Macondo crude oil and dispersant Corexit 9500A[®] to the *Brachionus plicatilis* species complex (Rotifera). Environmental Pollution 173:5-10.

Savolainen, M. A., R. H. Caffey, and R. F. Kazmierczak, Jr. 2012. Economic and Attitudinal Perspectives of the Recreational For-hire Fishing Industry in the U.S. Gulf of Mexico. Center for Natural Resource Economics and Policy, LSU AgCenter and Louisiana Sea Grant College Program, Department of Agricultural Economics and Agribusiness, Louisiana State University, Baton Rouge, LA. 171 p. Available at: <http://www.laseagrant.org/pdfs/Gulf-RFH-Survey-Final-Report-2012.pdf>

Schirripa, M. J., and C. M. Legault. 1999. Status of the red snapper fishery in the Gulf of Mexico: Updated through 1998. SFD-99/00-75. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Southeast Fisheries Science Center. Miami, Florida.

SEA (Strategic Environmental Assessment Division, NOS). 1998. Product overview: Products and services for the identification of essential fish habitat in the Gulf of Mexico. NOS, Page 7-62 DEIS for EFH for the Gulf of Mexico FMPs July 2003 Silver Spring MD; National Marine Fisheries Service, Galveston, Texas; and Gulf of Mexico Fishery Management Council. Tampa Florida.

SEDAR 3. 2003. Complete stock assessment report of yellowtail snapper in the southeastern United States – SEDAR 3, Assessment report 1. Southeast Data, Assessment, and Review. North Charleston, South Carolina. <http://www.sefsc.noaa.gov/sedar/>.

SEDAR 6. 2004a. SEDAR report 1 the goliath grouper in southern Florida: Assessment review and advisory report. Southeast Data, Assessment, and Review. North Charleston, South Carolina. <http://www.sefsc.noaa.gov/sedar/>.

SEDAR 6. 2004b. SEDAR report 2 the hogfish in Florida: Assessment review and advisory report. Southeast Data, Assessment, and Review. North Charleston, South Carolina. <http://www.sefsc.noaa.gov/sedar/>

SEDAR 7. 2005. Stock assessment report of SEDAR 7 Gulf of Mexico red snapper. Southeast Data, Assessment, and Review. North Charleston, South Carolina. <http://www.sefsc.noaa.gov/sedar/>.

SEDAR 7 Update. 2009. Update stock assessment report of SEDAR 7 Gulf of Mexico red snapper. Southeast Data, Assessment, and Review. North Charleston, South Carolina. <http://www.sefsc.noaa.gov/sedar/>.

SEDAR 9. 2006a. Stock assessment report 1 of SEDAR 9: Gulf of Mexico gray triggerfish. Southeast Data, Assessment, and Review. North Charleston, South Carolina. <http://www.sefsc.noaa.gov/sedar/>.

SEDAR 9. 2006b. Stock assessment report 2 of SEDAR 9: Gulf of Mexico greater amberjack. Southeast Data, Assessment, and Review. North Charleston, South Carolina. <http://www.sefsc.noaa.gov/sedar/>.

SEDAR 9. 2006c. Stock assessment report 3 of SEDAR 9: Gulf of Mexico vermilion snapper assessment report 3. Southeast Data, Assessment, and Review. North Charleston, South Carolina. <http://www.sefsc.noaa.gov/sedar/>.

SEDAR 9 Update. 2010. SEDAR 9 stock assessment update report, Gulf of Mexico greater amberjack. Southeast Data, Assessment, and Review. North Charleston, South Carolina. <http://www.sefsc.noaa.gov/sedar/>.

SEDAR 9 Update. 2011a. SEDAR update stock assessment of vermilion snapper in the Gulf of Mexico. Southeast Data, Assessment, and Review. North Charleston, South Carolina. <http://www.sefsc.noaa.gov/sedar/>.

SEDAR 9 Update. 2011b. SEDAR update stock assessment of gray triggerfish in the Gulf of Mexico. Southeast Data, Assessment, and Review. North Charleston, South Carolina. <http://www.sefsc.noaa.gov/sedar/>.

SEDAR 10. 2006. Gulf of Mexico Gag Grouper Stock Assessment Report 2. Southeast Data, Assessment, and Review. North Charleston, South Carolina. <http://www.sefsc.noaa.gov/sedar/>.

SEDAR 10 Update. 2009. Stock assessment of gag in the Gulf of Mexico. – SEDAR update assessment. Southeast Data, Assessment, and Review. North Charleston, South Carolina. <http://www.sefsc.noaa.gov/sedar/>.

SEDAR 12. 2007. SEDAR12-Complete Stock Assessment Report 1: Gulf of Mexico Red Grouper. Southeast Data, Assessment, and Review. North Charleston, South Carolina. <http://www.sefsc.noaa.gov/sedar/>.

SEDAR 12 Update. 2009. Stock assessment of red grouper in the Gulf of Mexico – SEDAR update assessment. Southeast Data, Assessment, and Review. North Charleston, South Carolina. <http://www.sefsc.noaa.gov/sedar/>.

SEDAR 15A. 2008. Stock assessment report 3 (SAR 3) South Atlantic and Gulf of Mexico mutton snapper. Southeast Data, Assessment, and Review. North Charleston, South Carolina. <http://www.sefsc.noaa.gov/sedar/>.

SEDAR 19. 2010. Stock assessment report Gulf of Mexico and South Atlantic black grouper. Southeast Data, Assessment, and Review. North Charleston, South Carolina. <http://www.sefsc.noaa.gov/sedar/>.

SEDAR 22. 2011a. Stock assessment report Gulf of Mexico tilefish. Southeast Data, Assessment, and Review. North Charleston, South Carolina. <http://www.sefsc.noaa.gov/sedar/>.

SEDAR 22. 2011b. Stock assessment report Gulf of Mexico yellowedge grouper. Southeast Data, Assessment, and Review. North Charleston, South Carolina. <http://www.sefsc.noaa.gov/sedar/>.

SEDAR 23. 2011. Stock assessment report South Atlantic and Gulf of Mexico goliath grouper. Southeast Data, Assessment, and Review. North Charleston, South Carolina. <http://www.sefsc.noaa.gov/sedar/>.

SEDAR 31. 2013. Stock assessment report Gulf of Mexico red snapper. Southeast Data, Assessment, and Review. North Charleston, South Carolina. <http://www.sefsc.noaa.gov/sedar/>.

SEDAR 33 Data Workshop. 2013. SEDAR 33 Section II: Data Workshop Report Gulf of Mexico – Gag. Southeast Data, Assessment, and Review. North Charleston, South Carolina. <http://www.sefsc.noaa.gov/sedar/>.

Shipp, R.L. 2001. The snapper fishery in the Gulf of Mexico, an historical perspective, and management implications. PowerPoint presentation to the Gulf of Mexico Fishery Management Council, January 2001.

Turner, S. C., N. J. Cummings, and C. P. Porch. 2000. Stock assessment of Gulf of Mexico greater amberjack using data through 1998. SFD-99/00-100. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Southeast Fisheries Science Center. Miami, Florida.

http://www.sefsc.noaa.gov/sedar/download/S9RD06_GAJassessGulf.pdf?id=DOCUMENT

Turner, S. C., C. E. Porch, D. Heinemann, G. P. Scott, and M. Ortiz. 2001. Status of the gag stocks of the Gulf of Mexico: assessment 3.0. August 2001. Contribution: SFD-01/02-134. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Southeast Fisheries Science Center. Miami, Florida.

Valle, M., C. Legault, and M. Ortiz. 2001. A stock assessment for gray triggerfish, *Balistes capriscus*, in the Gulf of Mexico. Contribution: SFD-01/02-124. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Southeast Fisheries Science Center. Miami, Florida.

Weisberg, R.H., Zheng, L., Liu, Y., Murawski, S., Hu, C., and Paul, J. 2014. Did Deepwater Horizon Hydrocarbons Transit to the West Florida Continental Shelf?, Deep Sea Research Part II: Topical Studies in Oceanography, Available online 17 February 2014, ISSN 0967-0645, <http://dx.doi.org/10.1016/j.dsr2.2014.02.002>.

<http://www.sciencedirect.com/science/article/pii/S0967064514000356>

Wilson, C.A. and D.L. Nieland. 2001. Age and growth of red snapper, *Lutjanus campechanus*, from the northern Gulf of Mexico off Louisiana. Fishery Bulletin 99:653-664.

<http://fishbull.noaa.gov/994/wil.pdf>

APPENDIX A. OTHER APPLICABLE LAW

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

Administrative Procedures Act

All federal rulemaking is governed under the provisions of the Administrative Procedure Act (5 U.S.C. Subchapter II), which establishes a “notice and comment” procedure to enable public participation in the rulemaking process. Under the Act, the National Marine Fisheries Service (NMFS) is required to publish notification of proposed rules in the Federal Register and to solicit, consider, and respond to public comment on those rules before they are finalized. The Act also establishes a 30-day waiting period from the time a final rule is published until it takes effect.

Coastal Zone Management Act

Section 307(c)(1) of the federal Coastal Zone Management Act of 1972 (CZMA), as amended, requires federal activities that affect any land or water use or natural resource of a state’s coastal zone be conducted in a manner consistent, to the maximum extent practicable, with approved state coastal management programs. The requirements for such a consistency determination are set forth in NOAA regulations at 15 C.F.R. part 930, subpart C. According to these regulations and CZMA Section 307(c)(1), when taking an action that affects any land or water use or natural resource of a state’s coastal zone, NMFS is required to provide a consistency determination to the relevant state agency at least 90 days before taking final action.

Upon submission to the Secretary, NMFS will determine if this plan amendment is consistent with the Coastal Zone Management programs of the states of Alabama, Florida, Louisiana, Mississippi, and Texas to the maximum extent possible. Their determination will then be submitted to the responsible state agencies under Section 307 of the CZMA administering approved Coastal Zone Management programs for these states.

Data Quality Act

The Data Quality Act (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 to issue government wide guidelines that “provide policy and procedural guidance to federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information disseminated by federal agencies.” Such guidelines have been issued, directing all federal agencies to create and disseminate agency-specific standards to: (1) ensure information quality and develop a pre-dissemination review process; (2) establish administrative mechanisms allowing affected persons to seek and obtain correction of information; and (3) report periodically to Office of Management and Budget on the number and nature of complaints received.

Scientific information and data are key components of FMPs and amendments and the use of best available information is the second national standard under the Magnuson-Stevens Fishery Conservation and Management Act. 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 will also undergo quality control prior to being used by the agency and a pre-dissemination review.

Endangered Species Act

The Endangered Species Act (ESA) of 1973, as amended, (16 U.S.C. Section 1531 et seq.) requires federal agencies use their authorities to conserve endangered and threatened species. The ESA requires NMFS, when proposing an action for managed stocks 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. NMFS, as part of the Secretarial review process, will make a determination regarding the potential impacts of the proposed actions.

On September 30, 2011, the Protected Resources Division released a biological opinion which, after analyzing best available data, the current status of the species, environmental baseline (including the impacts of the recent Deepwater Horizon MC 252 oil release event in the northern Gulf of Mexico), effects of the proposed action, and cumulative effects, concluded that the continued operation of the Gulf of Mexico reef fish fishery is also not likely to jeopardize the continued existence of green, hawksbill, Kemp’s ridley, leatherback, or loggerhead sea turtles, nor the continued existence of smalltooth sawfish (NMFS 2011).

Fish and Wildlife Coordination Act

Fish and Wildlife Coordination Act of 1934 (16 U.S.C. 661-667e) provides the basic authority for the Fish and Wildlife Service's involvement in evaluating impacts to fish and wildlife from proposed water resource development projects. It also requires Federal agencies that construct, license or permit water resource development projects to first consult with the Service (and the National Marine Fisheries Service in some instances) and State fish and wildlife agency regarding the impacts on fish and wildlife resources and measures to mitigate these impacts.

The fishery management actions in the Gulf of Mexico are not likely to affect wildlife resources pertaining to water resource development as the economic exclusive zone is from the state water boundary extending to 200 nm from shore.

National Historic Preservation Act

The National Historic Preservation Act (NHPA) of 1966, (Public Law 89-665; 16 U.S.C. 470 *et seq.*) is intended to preserve historical and archaeological sites in the United States of America. Section 106 of the NHPA requires federal agencies to evaluate the impact of all federally funded or permitted projects for sites on listed on, or eligible for listing on, the National Register of Historic Places and aims to minimize damage to such places.

Typically, fishery management actions in the Gulf of Mexico are not likely to affect historic places with exception of the *U.S.S. Hatteras*, located in federal waters off Texas, which is listed in the National Register of Historic Places. The proposed actions are not likely to increase fishing activity above previous years. Thus, no additional impacts to the *U.S.S. Hatteras* would be expected.

Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) established a moratorium, with certain exceptions, on the taking of marine mammals in U.S. waters and by U.S. citizens on the high seas, 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 NMFS) is responsible for the conservation and management of cetaceans and pinnipeds (other than walruses). The Secretary of the Interior is responsible for walruses, sea and marine otters, polar bears, manatees, and dugongs.

Part of the responsibility that NMFS has under the MMPA involves monitoring populations of marine mammals to make sure that they stay at optimum levels. If a population falls below its optimum level, it is designated as “depleted,” 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 fishing activities, and studies of pinniped-fishing activity interactions.

Under section 118 of the MMPA, NMFS must publish, at least annually, a List of Fisheries that places all U.S. commercial fishing activities into one of three categories based on the level of incidental serious injury and mortality of marine mammals that occurs in each fishing activity. The categorization of a fishing activity in the List of Fisheries determines whether participants in that fishing activity may be required to comply with certain provisions of the MMPA, such as registration, observer coverage, and take reduction plan requirements.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (16 U.S.C. 703) protects migratory birds. The responsibilities of Federal agencies to protect migratory birds are set forth in Executive Order 13186. US Fish and Wildlife Service is the lead agency for migratory birds. The birds protected under this statute are many of our most common species, as well as birds listed as threatened or endangered. A memorandum of understanding (MOU) between NMFS and U.S. Fish and Wildlife Service (FWS), as required by Executive Order 13186 (66 FR 3853, January 17, 2001), is to promote the conservation of migratory bird populations. This MOU focuses on avoiding, or where impacts cannot be avoided, minimizing to the extent practicable, adverse impacts on migratory birds and strengthening migratory bird conservation through enhanced collaboration between NMFS and FWS by identifying general responsibilities of both agencies and specific areas of cooperation. Given NMFS' focus on marine resources and ecosystems, this MOU places an emphasis on seabirds, but does not exclude other taxonomic groups of migratory birds.

Typically, fishery management actions in the Gulf of Mexico are not likely to affect migratory birds. The proposed actions are not likely to change the way in which the fishery is prosecuted. Thus, no additional impacts are reasonably expected.

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 the public is not overburdened with information requests, the federal government's information collection procedures are efficient, and federal agencies adhere to appropriate rules governing the confidentiality of such information. The Act requires NMFS to obtain approval from the Office of Management and Budget before requesting most types of fishing activity information from the public. **Alternative 4** would establish a federal private recreational vessel permit which would require paperwork to apply for and maintain. The paperwork required for this alternative is small, and not expected to be any greater than that required for other permits for various fishing sectors. Other than this alternative, none of the alternatives in this amendment are expected to create additional paperwork burdens.

Prime Farmlands Protection and Policy Act

The Farmland Protection and Policy Act of 1981 (7 U.S.C. 4201) was enacted to minimize the loss of prime farmland and unique farmlands as a result of Federal actions by converting these lands to nonagricultural uses. It assures that federal programs are compatible with state and local governments, and private programs and policies to protect farmland.

The fishery management actions in the Gulf of Mexico are not likely to affect farmlands as the economic exclusive zone is from the state water boundary extending to 200 nm from shore.

National Wild and Scenic Rivers System

The National Wild and Scenic Rivers System of 1968 (Public Law 90-542; 16 U.S.C. 1271 et seq.) preserves certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. The Act safeguards the special character of these rivers, while also recognizing the potential for their appropriate use and development. It encourages river management that crosses political boundaries and promotes public participation in developing goals for river protection.

The fishery management actions in the Gulf of Mexico are not likely to affect wetland habitats as the economic exclusive zone is from the state water boundary extending to 200 nm from shore.

North American Wetlands Conservation Act

The North American Wetlands Conservation Act of 1989 (Public Law 101-233) established a wetlands habitat program, administered by the United States Fish and Wildlife Service, to protect and manage wetland habitats for migratory birds and other wetland wildlife in the United States, Mexico, and Canada.

The fishery management actions in the Gulf of Mexico are not likely to affect wetland habitats as the economic exclusive zone is from the state water boundary extending to 200 nm from shore.

Executive Orders (E.O.)

E.O. 12630: Takings

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

E.O. 12866: Regulatory Planning and Review

E.O. 12866: Regulatory Planning and Review, signed in 1993, requires federal agencies to assess the costs and benefits of their proposed regulations, including distributional impacts, and to select alternatives that maximize net benefits to society. To comply with E.O. 12866, NMFS prepares a Regulatory Impact Review (RIR) for all 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 Regulatory Flexibility Analysis. A regulation is significant 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 and communities; 2) creates a serious inconsistency or otherwise interferes 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 this Executive Order.

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

This E.O. mandates that each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories and possessions.

E.O. 12962: Recreational Fisheries

This E.O. requires federal agencies, in cooperation with states and tribes, to improve the quantity, function, sustainable productivity, and distribution of U.S. aquatic resources for

increased recreational fishing opportunities through a variety of methods including, but not limited to, developing joint partnerships; promoting the restoration of recreational fishing areas that are limited by water quality and habitat degradation; fostering sound aquatic conservation and restoration endeavors; and evaluating the effects of federally-funded, permitted, or authorized actions on aquatic systems and recreational fisheries, and documenting those effects. Additionally, it establishes a seven-member National Recreational Fisheries Coordination Council (NRFCC) 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 NRFCC also is responsible for developing, in cooperation with federal agencies, States and Tribes, a Recreational Fishery Resource Conservation Plan - to include a five-year agenda. Finally, the Order requires NMFS and the U.S. Fish and Wildlife Service to develop a joint agency policy for administering the ESA.

E.O. 13089: Coral Reef Protection

The E.O. 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 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).

Regulations are already in place to limit or reduce habitat impacts within the Flower Garden Banks National Marine Sanctuary. Additionally, NMFS approved and implemented Generic Amendment 3 for Essential Fish Habitat (GMFMC 2005), which established additional habitat areas of particular concern (HAPCs) and gear restrictions to protect corals throughout the Gulf of Mexico. There are no implications to coral reefs by the actions proposed in this amendment.

E.O. 13132: Federalism

The E.O. on Federalism requires agencies in formulating and implementing policies, to be guided by the fundamental Federalism principles. The Order serves to guarantee the division of governmental responsibilities between the national government and the states that was intended by the framers of the Constitution. Federalism is rooted in the belief that issues not national in scope or significance are most appropriately addressed by the level of government closest to the people. This Order is relevant to FMPs and amendments given the overlapping authorities of NMFS, the states, and local authorities in managing coastal resources, including fisheries, and the need for a clear definition of responsibilities. It is important to recognize those components of the ecosystem over which fishery managers have no direct control and to develop strategies to address them in conjunction with appropriate state, tribes and local entities (international too).

In Amendment 30B, no Federalism issues were identified relative to the action to establish the 30B permit provision. Therefore, consultation with state officials under Executive Order 12612 was not necessary. In Council discussions regarding this framework action, the question of whether the 30B permit provision conflicts with state regulations has been discussed (see Section 1.1), but no determination was made that this constitutes a Federalism issue. Consequently, consultation with state officials under Executive Order 12612 remains unnecessary.

E.O. 13158: Marine Protected Areas

This E.O. 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. There are several marine protected areas, HAPCs, and gear-restricted areas in the eastern and northwestern Gulf. The existing areas are entirely within federal waters of the Gulf of Mexico. They do not affect any areas reserved by federal, state, territorial, tribal or local jurisdictions.

Essential Fish Habitat

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

These actions are not expected to change the way in which the fisheries are conducted in regard to the impact of the fisheries on the environment. The actions, considered in the context of the fisheries as a whole, will not have an adverse impact on EFH; therefore, an EFH consultation is not required. The basis for this determination is described in a memorandum dated March 15, 2013.

APPENDIX B. SUMMARIES OF PUBLIC COMMENTS RECEIVED

No written comments were received prior to final action. However, public comments were provided at Council meetings throughout 2013. During public testimony at the February 2014 Council meeting where final action was taken, 16 persons testified regarding the 30B permit provision. All who testified were from either Texas or Florida. Below is a summary of the comments received at the February 2014 meeting. A full transcript of the comments is included in the minutes of the February 2014 Council meeting, which is available from the Council.

8 representatives of the for-hire sector spoke in favor of rescinding the 30B provision. Comments included:

- The need is to reduce conflicts with several of the management objectives of the FMP concerning access to the red snapper resource
- Economic loss to some federally-permitted for-hire vessels
- Operational flexibility of permitted for-hire vessels
- Loss of recreational fishing opportunities
- Lost days in the EEZ would be offset by increased days in state waters
- This is a fairness issue
- This does not help the fishery, but it hurts the recreational fishermen who use for-hire boats for access to the fishery.
- It hurts those operators who struggle to keep their livelihood viable
- Supports sector separation combined with rescinding the 30B permit provision
- 30B provision is discriminatory and unfair to the businesses and captains who own federally-permitted boats

5 recreational fishermen spoke in favor of rescinding the 30B provision. Comments included:

- Does not object to for-hire vessels fishing in state waters when private vessels are allowed
- Has never caught a red snapper in Texas state waters, and feels that a legitimate captain is not going to fish state waters during snapper season
- Make it fair for everybody
- Against any type of segregation and discrimination against any recreational fisherman

2 representatives of the for-hire sector spoke in opposition to rescinding the 30B provision. Comments included:

- If for-hire vessel are allowed to fish in state waters, they are going to decimate those fish in state waters
- Keep the bigger boats offshore where there are enough fish
- It's hard to provide a quality trip in state waters

1 charterboat operator was undecided.

APPENDIX C. POTENTIAL IMPACTS OF REVISING AMENDMENT 30B PERMIT RESTRICTIONS

SERO-LAPP-2014-02
NOAA Fisheries, Southeast Regional Office
LAPP/DM Branch
January 8, 2014

Background

In 2009, the Gulf of Mexico Fishery Management Council (Council) approved a requirement that federally permitted for-hire vessels abide by federal reef fish regulations if more restrictive than state regulations when fishing in state waters. The purpose of this requirement was to improve the effectiveness of federal management measures in instances where states adopted less restrictive regulations. Currently, the Council is reconsidering this permit restriction, as states are more frequently adopting inconsistent regulations due to shortened federal fishing season lengths (particularly for red snapper). The Council is developing a framework action which includes alternatives to: 1) retain 30B permit restrictions, 2) rescind 30B permit restrictions but only for red snapper and/or gag, 3) rescind 30B permit restrictions for all reef fish, and 4) extend 30B permit restrictions to private recreational vessels fishing in state waters. The following analysis summarizes the potential impacts of eliminating or extending 30B permit restrictions.

Evaluation of the impacts of 30B permit restrictions is complex. For-hire vessels have been restricted from landing reef fish outside federal fishing seasons since 2009; therefore, no recent data exists to model potential impacts. Although there are some landings in recent years from state waters when federal seasons are closed, these landings are relatively small and primarily from private vessels or non-federally permitted for-hire vessels. Analyses are further complicated by state to state differences in the availability of reef fish in state waters, the extent of inconsistent fishing seasons by state and when they occur, and changes in angler behavior resulting from modifications to permit restrictions.

For purposes of this analysis, impacts are evaluated only for red snapper and to a limited extent for gag. Impacts are evaluated on a state-by-state basis first and then evaluated on a Gulfwide basis to determine how elimination or extension of Amendment 30B may affect fishing season lengths for these species. Elimination or extension of Amendment 30B permit conditions could also affect other reef fishes, such as gray triggerfish or hogfish, but inconsistent state regulations for these species are relatively new and could not be fully analyzed herein.

Inconsistent Regulations - 2013 and 2014

In 2014, the federal recreational season for Gulf of Mexico red snapper will be June 1 through July 10. The red snapper bag limit will be 2 fish and the size limit will be 16 inches total length (TL). The gag recreational season will begin July 1, but the 2014 closure date has not yet been determined. The gag bag limit will be 2 fish and the size limit will be 22 inches TL. In 2013, the recreational gag season ended on December 3. Alabama and Mississippi adopted consistent

regulations for gag and red snapper in 2013 and it is assumed that these states will also adopt consistent regulations for 2014. Florida established a June 1-July 14 red snapper season in 2013. They also opened state waters off four coastal counties to gag harvest three months prior to the federal season in 2013. Those counties were then closed to gag harvest during the federal open season as well as the remainder of the closed season. Louisiana adopted consistent regulations for gag, but not for red snapper in 2013. It is assumed that Louisiana regulations for gag will be consistent in 2014. For red snapper, Louisiana will open state waters on three day weekends (including some holidays) beginning the Saturday (April 19, 2014) before Palm Sunday and continuing through September 30. Texas has year-round seasons for red snapper and gag and maintains a 4-fish bag limit and 15 inch size limit for red snapper.

Data used for Analysis

Marine Recreational Information Program (MRIP), Headboat, and Texas Parks and Wildlife Department landings data were obtained from the Southeast Fisheries Science Center's Annual Catch Limit database and used for analysis. Landings data up to 2012 were considered for all states, except Louisiana. For Louisiana, landings were obtained from the Louisiana Department of Wildlife and Fisheries (LA-DWF) 2013 red snapper quota monitoring program. The LA-DWF quota monitoring program provides landings by mode on a weekly basis both during and outside the federal season.

Due to changes in the MRIP angler intercept survey beginning in March 2013, MRIP landings for 2013 were not considered in this analysis. Preliminary 2013 red snapper catch estimates produced by MRIP were unexpectedly high relative to previous years. At this time, NOAA Fisheries does not have a sufficient understanding of how to use the 2013 MRIP landing estimates without better understanding how they fit into the broader scientific basis for management, which includes the stock assessment and the full historical times series of fishery data.

In addition to landings data, 2014 red snapper projections described in [SERO-LAPP-2013-10](#) were modified to account for rescinding of 30B. Projections were modified to account for for-hire landings occurring in state waters when federal waters are closed based on the methods described below.

State by State Impacts of Rescinding 30B

Florida

Between 2008 and 2012, Florida adopted consistent regulations in all years, except 2008. In 2008, Florida maintained a 200-day red snapper season (April 15-October 31), while the federal season was 65 days (June 1-August 4). After 2008 and until 2013, Florida maintained consistent regulations. In 2013, Florida established a 44-day summer fishing season (June 1-July 14), while the federal season was open 28 days (June 1-28). Estimates of the 2014 federal red snapper season presented in [SERO-LAPP-2013-10](#) assumed Florida would adopt a consistent recreational fishing season length. At this time, the Florida Fish and Wildlife Conservation Commission has yet to set the 2014 fishing season length. For purposes of this analysis, the impacts of 30B were

modeled assuming Florida adopts a 44-day season in 2014 compared to the 40-day federal season length.

Given that this analysis was unable to use 2013 data, and Florida had consistent regulations from 2009-2012, estimating the impacts of 30B on Florida for-hire anglers relied on many assumptions. As described in [SERO-LAPP-2013-02](#), for-hire out-of-season landings per day were computed in a similar manner as was done for private angler landings per day. Florida for-hire out-of-season landings per day were computed by multiplying estimated 2014 Florida in-season landings per day by the proportion of landings by charter vessels or headboats from Florida state waters during the 2012 federal red snapper season. Charter vessels in 2012 reported 31% of the total Florida charter landings from state waters, while headboats reported 8% of their landings from state waters (Table 1). Projected in-season MRIP and Headboat landings per day for Florida in 2014 were 53,897 pounds and 5,433 pounds of red snapper per day, respectively. Charter vessels account for 33% of the red snapper landings (based on 2012 data), resulting in in-season landings per day of 17,786 pounds per day for charter vessels. Assuming landings per day in state waters are 31% and 8% of in-season landings per day then 5,514 pounds of red snapper would be landed per day by charter vessels from state waters and 441 pounds per day would be landed per day by headboats from state waters. However, as discussed in SERO (2013), significant effort shifting is likely to occur when federal waters close. This was previously observed in 2008 when Florida waters remained open after federal waters closed – landings per day increased by a factor of 1.56. To account for effort shifting, a sensitivity run was performed that doubled state water landings per day for charter vessels (=11,028 pounds/day = 62% of in-season landings per day). This was done to evaluate the sensitivity of different landings per day on estimated season lengths. Another sensitivity run was completed that assumed headboat out-of-season landings per day were comparable to charter out-of-season landings per day (1,684 pounds/day = 31% × 5,433 pounds/day).

Table 1. Florida private and for-hire landings for Gulf of Mexico recreational red snapper by year and area fished, 2011-2012.

Year	Mode	Landings (lbs ww)			Percent by Area	
		State waters	Federal waters	Total	State waters	Federal waters
2011	Charter	188,128	366,231	554,359	34%	66%
	Headboat	12,093	221,100	233,193	5%	95%
	Private	377,050	518,619	895,669	42%	58%
2012	Charter	198,589	442,847	641,436	31%	69%
	Headboat	15,815	190,015	205,830	8%	92%
	Private	455,680	833,574	1,289,253	35%	65%

Alabama and Mississippi

Both Alabama and Mississippi have adopted consistent regulations for red snapper and gag in recent years in their state waters, which extend three nautical miles offshore. Although gag and red snapper can be caught in these state waters, no red snapper were reported by charter vessels or headboats from Alabama state waters in 2011 or 2012 (Table 2). Similarly, no red snapper landings were reported from Mississippi state waters by private or for-hire vessels in 2011 or 2012 (Table 3). However, in the last year, Alabama has deployed artificial reefs just inside the territorial sea/exclusive economic zone boundary, which may attract reef fish such as red snapper and has the potential to increase landings from territorial waters. Private anglers from Alabama did report harvesting 4-14% of red snapper from state waters during 2011 and 2012 (Table 3). Given these states' histories with adopting consistent regulations, coupled with limited availability of red snapper and gag in state waters, it was assumed for purposes of this analysis that elimination of 30B would have no effect. However, impacts may result from rescinding 30B if these states adopt inconsistent regulations in the future.

Table 2. Alabama private and for-hire landings for Gulf of Mexico recreational red snapper by year and area fished, 2011-2012.

Year	Mode	Landings (lbs ww)			Percent by Area	
		State waters	Federal waters	Total	State waters	Federal waters
2011	Charter	0	339,837	339,837	0%	100%
	Headboat	0	80,866	80,866	0%	100%
	Private	51,180	1,295,872	1,347,053	4%	96%
2012	Charter	0	359,469	359,469	0%	100%
	Headboat	0	71,482	71,482	0%	100%
	Private	138,917	874,543	1,013,460	14%	86%

Table 3. Mississippi private and for-hire landings for Gulf of Mexico recreational red snapper by year and area fished, 2011-2012.

Year	Mode	Landings (lbs ww)			Percent by Area	
		State waters	Federal waters	Total	State waters	Federal waters
2011	Charter	0	2,440	2,440	0%	100%
	Headboat	666	5,921	6,587	10%	90%
	Private	0	37,134	37,134	0%	100%
2012	Charter	0	997	997	0%	100%
	Headboat	0	5,894	5,894	0%	100%
	Private	0	182,721	182,721	0%	100%

Louisiana

Estimating the impacts of 30B for Louisiana was approached in a different manner than for the other states, because recent data were available to assess the impacts of inconsistent state regulations. Louisiana state waters were open in 2013 a total of 73 more days than the federal season. In 2013, the LA-DWF quota monitoring program indicated Louisiana private anglers landed 1,653-2,327 pounds of red snapper per day out-of-season compared to 9,229 pounds per day during the core summer fishing season. Private out-of-season landings per day were 18-25 percent of peak summer federal season landings per day. In comparison, federally permitted for-hire vessels were prohibited from fishing in state waters. Louisiana non-federally permitted for-hire vessels landed 183-185 pounds of red snapper per day out-of-season compared to 1,654 pounds of red snapper per day during the federal season. For-hire out-of-season landings per day were 11 percent of peak summer federal season landings per day.

To estimate the potential impact of eliminating 30B, Louisiana for-hire catch landings per day were comparatively increased by the same amount as observed for private vessels. In other words, out-of-season landings per day were 18 to 25% of federal season landings per day. This resulted in state water for-hire landings per day before the season of 296 fish per day ($=1,654 \text{ pounds} \times 1,653/9,229$) and after the season of 417 pounds per day ($=1,654 \text{ pounds} \times 2,327/9,229$). No separate adjustments were made for headboats, because they are included in the for-hire landings from Louisiana's quota monitoring program. A sensitivity run was also performed doubling the for-hire landings per day from state waters ($= 588 \text{ pounds/day pre-federal season and } 834 \text{ pounds per day post-federal season}$).

Table 4. Louisiana private and for-hire landings for Gulf of Mexico recreational red snapper by time period, 2013.

Mode	Dates Surveyed	Days Surveyed*	Landings (lbs ww)	Landings/Day	Fed Season
Private	Mar 23-May 31	31	51,244	1,653	No
	Jun 1-28	28	258,416	9,229	Yes
	Jun 29-Sep 29	42	97,745	2,327	No
	Oct 1-14	14	44,900	3,207	Yes
For-Hire	Mar 23-May 27	30	5,557	185	No
	May 31-Jun 30	31	51,278	1,654	Yes
	Jul 1-Sep 29	40	7,311	183	No
	Oct 1-14	14	10,256	733	Yes

Texas

During 2012, Texas vessels reported landing 616,736 pounds of red snapper. A total of 479,011 pounds (77.7%) was landed during the federal season. Out-of-season landings accounted for 22.3% of the total harvest, with most out-of-season landings by headboats and private boats. Similar to Louisiana, private vessels were used as a proxy for estimating charter for-hire landings. Out-of-season landings per day were estimated by dividing aggregate out-of-season

2012 landings for the private and charter sectors (January-April and September-December, because data were available on a two-month wave basis) and headboats (January-May and August-December, because data were available monthly) by the number of days state waters were open when federal waters were closed (n = 320 days in 2012). Similarly, in-season landings per day were estimated by dividing aggregate in-season private/charter (May-Aug) and headboat (Jun-Jul) landings by the number of days the federal season was open (n=46). It should be noted that this approach may underestimate out-of-season landings per day and overestimate in-season landings per day for for-hire and private vessels because landings during May and August cannot be separated from landings when the federal season was open.

Private out-of-season landings were 171 pounds of fish per day or 7.6% of in-season landings per day. Charter out-of-season landings were 33 pounds of fish per day or 5.4% of in-season landings per day. To estimate the impacts of rescinding 30B, charter out-of-season landings per day were increased to 7.6% of in-season landings per day. This resulted in out-of-season charter landings of 47 pounds of fish per day. Given the number of federal permitted for-hire vessels fishing in Texas, this value appears to considerably underestimate the impacts of rescinding 30B. Therefore, an additional sensitivity run was performed using observed headboat out-of-season catch rates from 2011 and 2012.

Since implementation of 30B, several Texas headboats have been observed transferring their federal permits to other vessels when the federal waters red snapper season is closed. This has allowed these vessels to fish in state waters without violating the provisions of 30B. In-season and out-of-season landings for these vessels were computed using 2011 and 2012 data. To maintain data confidentiality, specific landing amounts cannot be provided. It was determined that out-of-season landings per day for these vessels were 36% and 22% of in-season landings per day during 2011 and 2012, respectively. Out-of-season landings per day for all headboats fishing off Texas were calculated by multiplying the in-season landings per day estimated for 2014 (=6,198 pounds/day) by 22-36%. This scales to an observed out-of-season headboat catch rate ranging from 1,363 to 2,209 pounds/day. Applying these observed headboat state waters catch rates to the charter in-season catch rate of 618 pounds/day computes to a potential out-of-season charter catch rate of 136- to 220-pounds/day.

Table 5. Texas 2012 red snapper landings by time period. Note: private and charter landings are estimated by wave while headboat landings are estimated by month. If the federal season is only partially open during a wave or month then some landings reported during the wave or month may actually occur outside the federal season. Landings per day were calculated by dividing landings by the number of days federal waters were open (n=46) and state waters were open when federal waters were closed (n=320).

Mode	Time Period	Landings (lbs ww)	% landings	Landings/Day	Fed Season
Private	Jan-Apr, Sep-Dec	54,618	35%	171	No
	May-Aug	103,319	65%	2246	Yes
Charter	Jan-Apr, Sep-Dec	10,688	27%	33	No
	May-Aug	28,440	73%	618	Yes
Headboat	Jan-May, Aug-Dec	72,419	17%	n/a	No
	Jun-Jul	347,252	83%	n/a	Yes

Change in Red Snapper Season Length – Rescind 30B

Assuming Florida, Alabama, and Mississippi adopt consistent regulations, Louisiana and Texas maintain state water fishing seasons as described earlier in this document, and 30B remains in effect, the median season length for 2014 was estimated to be 40 days ([SERO-LAPP-2013-10](#)). Projections described in [SERO-LAPP-2013-10](#) were updated with the out-of-season catch rate estimates described above to evaluate the impacts of rescinding 30B. To evaluate the sensitivity of results, analyses were also performed assuming Florida adopts a 44-day season in 2014, consistent with the season length they established in 2013. All results are compared relative to the 40-day recreational red snapper season for 2014. Low and high out-of-season landings per day were considered as described above and summarized in Table 6.

Table 6. Estimated out-of-season red snapper landings per day by state and mode as used in model projections.

State	Mode	State Water Landings/Day	
		Low Estimate	High Estimate
Florida	Charter	5,514	11,028
	Headboat	441	1,684
Alabama	Charter	0	0
	Headboat	0	0
Mississippi	Charter	0	0
	Headboat	0	0
Louisiana	For-hire pre-Fed	296	588
	For-hire post-Fed	417	834
Texas	Charter	47	220
	Headboat	1,363	2,209

Rescinding 30B is estimated to reduce the length of the federal season to 32 to 36 days (10-18%) if only Texas and Louisiana adopt inconsistent regulations. If Florida adopts a 44-day season length and Texas and Louisiana adopt inconsistent regulations, the federal season might be reduced to 31 to 35 days (13-23%). Changes in-season length could be lower or higher than estimated here depending on the degree of inconsistent regulations adopted by each state. For example, if Florida proposed establishing a season longer than 44-days, then federal season lengths would be even shorter than those presented here. Similarly, if Texas or Louisiana reduced the length of their state water seasons, then federal season lengths would be longer than those presented here.

Change in Red Snapper Season Length – Maintain 30B and Expand to Include Federally Permitted Private Vessels

The Framework Action for modifying for-hire permit conditions also includes an alternative that would extend 30B restrictions to private recreational vessels by establishing a private recreational vessel permit to fish for reef fish in the EEZ. As a condition of the permit, if federal regulations for Gulf reef fish are more restrictive than state regulations, a person aboard a vessel for which a private recreational permit for Gulf reef fish has been issued must comply with such federal regulations regardless of where the fish are harvested. Because such a permit is not yet in place, it is impossible to determine how many private anglers would purchase such a permit versus simply fish in state waters. To analyze the impacts of this action, out-of-season private landings in the 2014 season projection model ([SERO-LAPP-2013-10](#)) were set equal to zero. Private out-of-season landings were estimated from Louisiana and Texas and totaled approximately 220,000 pounds. Requiring private vessels to abide by 30B regulations would extend the recreational red snapper season by slightly less than two days.

Potential Impacts to Gag Recreational Fishing Season – Rescind 30B

Florida accounts for greater than 95% of the annual recreational gag landings. In recent years, they have adopted an inconsistent season in state waters off four coastal counties in the Big Bend of Florida. For example, Florida opened state waters off four coastal counties to gag harvest three months prior to the federal season in 2013; those counties were then closed to gag harvest during the federal open season as well as the remainder of the closed season. Approximately 150,000 pounds of gag were landed from state waters during April through June 2012 by private anglers and non-federally permitted charter vessels. These landings accounted for 16% of the total recreational landings in 2012 and did not result in the annual catch limit being exceeded. Given the limited geographic area with inconsistent regulations it is impossible to predict what impact rescinding 30B would have on gag harvest. However, based on NMFS federal permit records, few for-hire vessels operate in the Big Bend of Florida; thus, rescinding 30B for gag under this scenario would likely have minimal impacts. If Florida adopted inconsistent regulations for gag in other areas of Florida, such as off of the west Florida peninsula, then impacts would likely be far greater.

Discussion

Rescinding 30B regulations will shorten the federal red snapper season, and potentially seasons for other federally managed species. This analysis estimates the recreational red snapper season will be shortened by 4-9 days (10-23%), but results are highly uncertain given numerous factors. The abundance of reef fish in state waters varies from state to state and within a state making it difficult to estimate how much effort and landings could be shifted into state waters.

Additionally, changes in angler behavior are impossible to predict; however, if given the opportunity, federally permitted for-hire vessels would almost certainly fish in state waters when federal waters are closed. Another complicating factor is when during a year will regulations be inconsistent, as this effects the projected catch rate. For instance, if states extend the season to just before or slightly after the federal season, than daily landings are likely to be higher and closer to catch rates observed in-season. This is evidenced by Louisiana's quota monitoring program which saw increases in out-of-season landings per day on Memorial Day weekend and during July and early August 2013.

Managers should recognize that the impacts of 30B are dynamic and vary with the amount of fish landed by a state and the degree of state inconsistency. The more state regulations are inconsistent and the greater that state's ability to land federally managed species in state waters, the shorter federal seasons will become, to compensate for increased landings from state waters. This analysis assumed states will adopt state regulations similar to what they implemented in 2013 for red snapper. However, if states adopt regulations that are less consistent, then impacts would be greater than those described herein.

References

SERO. 2013. Gulf-wide and State-specific Projected 2013 Red Snapper Federal Season Closure Dates. NMFS, Southeast Regional Office, St. Petersburg, Florida 16 pp.

SERO-LAPP-2013-02 (with addendum). 2013. Updated 2013 Gulf of Mexico Red Snapper Recreational Season Length Estimates. NOAA Fisheries Service, Southeast Regional Office, St. Petersburg, FL, May 21, 2013; updated June 4, 2013.

SERO-LAPP-2013-10. 2013. 2014 Gulf of Mexico Red Snapper Recreational Season Length Estimates. NOAA Fisheries Service, Southeast Regional Office, St. Petersburg, FL. December 4, 2013.