

Regional Management of Recreational Red Snapper



Revised Actions and Alternatives for Amendment 39 to the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico

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Gulf of Mexico Reef Fish Amendment 39

Draft Environmental Impact Statement (DEIS) Cover Sheet

Regional Management of Recreational Red Snapper Amendment 39 to the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico.

Abstract:

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DEIS TABLE OF CONTENTS

Abstract..... i
Executive Summary ix
Purpose and Need 4
Management Alternatives 8
Affected Environment..... 35
Environmental Consequences..... 68
List of Preparers 73
List of Agencies, Organizations and Persons to whom a Copy of the EIS was Sent 74

ABBREVIATIONS USED IN THIS DOCUMENT

ABC	acceptable biological catch
ACL	annual catch limit
ACT	annual catch target
ALS	Accumulated Landings System
AM	accountability measure
BP	British Petroleum
CE	conservation equivalency
CEP	Conservation Equivalency Plan
Council	Gulf of Mexico Fishery Management Council
EEZ	exclusive economic zone
EFH	Essential Fish Habitat
EFP	exempted fishing permit
EIS	Environmental Impact Statement
EJ	Environmental Justice
ESA	Endangered Species Act
FMP	Fishery Management Plan
Gulf	Gulf of Mexico
HBS	Southeast Headboat Survey
IFQ	individual fishing quota
LDWF	Louisiana Department of Wildlife and Fisheries
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
mp	million pounds
MRFSS	Marine Recreational Fisheries Survey and Statistics
MRIP	Marine Recreational Information Program
MSST	minimum stock size threshold
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
OFL	overfishing limit
PDF	probability density function
SAV	submerged aquatic vegetation
SEAMAP	Southeast Area Monitoring and Assessment Program
Secretary	Secretary of Commerce
SEDAR	Southeast Data Assessment and Review
SEFSC	Southeast Fisheries Science Center
SERO	Southeast Regional Office of NMFS
SSB	spawning stock biomass
SSC	Scientific and Statistical Committee
SPR	spawning potential ratio
TAC	total allowable catch
TL	total length
TPWD	Texas Parks and Wildlife Department
VEC	valued environmental components
ww	whole weight
YPR	yield per recruit

TABLE OF CONTENTS

Gulf of Mexico Reef Fish Amendment 39	i
Draft Environmental Impact Statement (DEIS) Cover Sheet	i
Abbreviations Used in this Document	iii
List of Tables	vii
List of Figures	viii
Executive Summary	ix
Fishery Impact Statement	ix
Chapter 1. Introduction	1
1.1 Background	1
1.2 Purpose and Need	4
1.3 History of Management	5
Chapter 2. Management Alternatives	8
2.1 Action 1 –Regional Management	8
2.2 Action 2 – Regional Management and Sector Separation	16
2.3 Action 3 – Establish Regions for Management	20
2.4 Action 4 – Modify the Federal Minimum Size Limit	23
2.5 Action 5 – Closures in the Gulf EEZ	25
2.6 Action 6 – Apportioning the Recreational ACL (Quota) among Regions	28
2.7 Action 7 – Post-Season Accountability Measures (AMs)	33
Chapter 3. Affected Environment	35
3.1 Description of the Red Snapper Component of the Reef Fish Fishery	35
3.2 Description of the Physical Environment	42
3.3 Description of the Biological/Ecological Environment	43
3.4 Description of the Economic Environment	56
3.4.1 Commercial Sector	56
3.4.2 Recreational Sector	56
3.5 Description of the Social Environment	62
3.5.1 Environmental Justice Considerations	63
3.6 Description of the Administrative Environment	65
3.6.1 Federal Fishery Management	65
3.6.2 State Fishery Management	66
Chapter 4. Environmental Consequences	68

4.1 Action 1 – Regional Management	68
4.1.1 Direct and Indirect Effects on the Physical Environment.....	68
4.1.2 Direct and Indirect Effects on the Biological/Ecological Environment	68
4.1.3 Direct and Indirect Effects on the Economic Environment	68
4.1.4 Direct and Indirect Effects on the Social Environment	68
4.1.5 Direct and Indirect Effects on the Administrative Environment	68
4.2 Action 2 –Regional Management and Sector Separation	68
4.2.1 Direct and Indirect Effects on the Physical Environment.....	68
4.2.2 Direct and Indirect Effects on the Biological/Ecological Environment	68
4.2.3 Direct and Indirect Effects on the Economic Environment	68
4.2.4 Direct and Indirect Effects on the Social Environment	68
4.2.5 Direct and Indirect Effects on the Administrative Environment	68
4.3 Action 3 – Establish Regions for Management	68
4.3.1 Direct and Indirect Effects on the Physical Environment.....	68
4.3.2 Direct and Indirect Effects on the Biological/Ecological Environment	68
4.3.3 Direct and Indirect Effects on the Economic Environment	68
4.3.4 Direct and Indirect Effects on the Social Environment	68
4.3.5 Direct and Indirect Effects on the Administrative Environment	68
4.4 Action 4 – Establish Minimum and/or Maximum Size Limits.....	69
4.4.1 Direct and Indirect Effects on the Physical Environment.....	69
4.4.2 Direct and Indirect Effects on the Biological/Ecological Environment	69
4.4.3 Direct and Indirect Effects on the Economic Environment	69
4.4.4 Direct and Indirect Effects on the Social Environment	69
4.4.5 Direct and Indirect Effects on the Administrative Environment	69
4.5 Action 5 – Boundaries in the Exclusive Economic Zone	69
4.5.1 Direct and Indirect Effects on the Physical Environment.....	69
4.5.2 Direct and Indirect Effects on the Biological/Ecological Environment	69
4.5.3 Direct and Indirect Effects on the Economic Environment	69
4.5.4 Direct and Indirect Effects on the Social Environment	69
4.5.5 Direct and Indirect Effects on the Administrative Environment	69
4.6 Action 6 – Apportioning the Recreational Red Snapper Quota among Regions.....	69
4.6.1 Direct and Indirect Effects on the Physical Environment.....	69
4.6.2 Direct and Indirect Effects on the Biological/Ecological Environment	69
4.6.3 Direct and Indirect Effects on the Economic Environment	69

4.6.4 Direct and Indirect Effects on the Social Environment	69
4.6.5 Direct and Indirect Effects on the Administrative Environment	69
4.7 Action 7 – Post-season Accountability Measures (AMs)	69
4.7.1 Direct and Indirect Effects on the Physical Environment.....	70
4.7.2 Direct and Indirect Effects on the Biological/Ecological Environment	70
4.7.3 Direct and Indirect Effects on the Economic Environment.....	70
4.7.4 Direct and Indirect Effects on the Social Environment	70
4.7.5 Direct and Indirect Effects on the Administrative Environment	70
4.8 Cumulative Effects Analysis (CEA).....	70
Chapter 5. Regulatory Impact Review.....	71
Chapter 6. Regulatory Flexibility Act Analysis.....	72
Chapter 7. List of Preparers	73
Chapter 8. List of Agencies, Organizations and Persons to Whom a Copy of the EIS was sent	74
Chapter 9. References	75
Appendix A. Alternatives Considered but Rejected	88
Appendix B. Other Applicable Law	92
Appendix C. Summaries of Public Comments Received	98
Appendix D. Delegation Provision.....	126
Appendix E. Fishery Allocation Policy	127
Appendix F. Recreational Red Snapper Landings by State.....	130
Appendix G. Gulf of Mexico Red Snapper Federal Regulations Relevant to Reef Fish Amendment 39.....	131
Appendix H. Bycatch Practicability Analysis	134

LIST OF TABLES

Table 1.1.1. Recreational red snapper federal season lengths, quotas, and landings.....	2
Table 2.1.1. Example timeline for the review of CEPs by NMFS.....	13
Table 2.2.1. Comparison of regional management under Alternatives 1-4 for the private angling and federal for-hire components, assuming implementation of Amendment 40 (sector separation).....	17
Table 2.6.1. Percentage of annual recreational red snapper landings by state (1986-2014), based on whole weight (ww) of fish.....	29
Table 2.6.2. Resulting proportions of the recreational ACL that could be apportioned to each state based on four options (Alternatives 2-5) of historical landings time series.....	30
Table 2.6.3. Resulting proportions of the recreational red snapper ACL that could be apportioned to each state based on four options (Alternatives 2-5) of historical landings time series, excluding landings from 2006.....	30
Table 2.6.4. Resulting proportions of the recreational red snapper ACL that could be apportioned to each state based on four options (Alternatives 2-5) of historical landings time series, excluding landings from 2010.....	31
Table 2.6.5. Resulting proportions of the recreational red snapper ACL that could be apportioned to each state based on four options (Alternatives 2-5) of historical landings time series, excluding landings from 2006 and 2010.....	31
Table 2.6.6. Resulting proportions of the recreational sector ACL that could be apportioned to each state such that each region’s allocation provides an equivalent number of fishing days (Alternative 8) at the time of apportionment.....	32
Table 3.1.1. Recreational red snapper landings in 2012 by state and mode.....	35
Table 3.1.2. Red snapper landings and overage/underage by sector, 1986-2014.....	37
Table 3.1.3. Red snapper recreational landings vs. allocation/quota and days open 1986-2014. Landings are in mp ww. Recreational allocations began in 1991, and became quotas in 1997..	39
Table 3.1.4. Commercial red snapper harvest vs. days open, by sector, 1986-2014.....	41
Table 3.3.1. Summary of habitat utilization by life history stage for species in the Reef Fish FMP.....	47
Table 3.3.2. Species of the Reef Fish FMP grouped by family.....	51
Table 3.4.2.1. Number of red snapper recreational target trips, by state ¹ and mode, 2011-2014.....	57
Table 3.4.2.2. Number of red snapper recreational catch trips, by state ¹ and mode, 2011-2014.....	58
Table 3.4.2.3. Gulf headboat angler days, by state, 2011–2014.....	59
Table 3.4.2.5. Summary of red snapper target trips (2011-2014 average) and associated business activity (2013 dollars). The output, value added, and jobs impact estimates are not additive across states.....	61
Table 3.5.1. Top ranking Gulf communities based on recreational fishing engagement and reliance, in descending order.....	63
Table 3.5.1.1. 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.....	64

LIST OF FIGURES

Figure 2.1.1. Map of state waters and the EEZ with established and proposed boundaries between states. These boundaries were agreed upon at the February 2013 Council meeting.	15
Figure 2.2.1. Diagram showing the ACLs which would be established under Alternatives 1, 2, and 4. Up to ten ACLs would need to be established under Alternative 3, not shown above.	19
Figure 2.4.1. Red snapper length-weight relationship.	24
Figure 2.5.1. Visualization of the hypothetical example described for Preferred Alternative 2.	26
Figure 3.2.1. Physical environment of the Gulf including major feature names and mean annual sea surface temperature.....	42
Figure 3.3.1. Fishery closure at the height of the Deepwater Horizon MC252 oil spill.	55

EXECUTIVE SUMMARY

[To be completed.]

FISHERY IMPACT STATEMENT

[To be completed. Not a part of the DEIS.]

CHAPTER 1. INTRODUCTION

1.1 Background

Currently, the recreational harvest of red snapper in the Gulf of Mexico (Gulf) exclusive economic zone (EEZ) is constrained by a 2-fish bag limit, 16-inch total length (TL) minimum size limit, and a fishing season that begins on June 1 and closes when the annual catch target (ACT) is projected to be caught. Additional federal regulations pertaining to recreational red snapper,¹ such as permit requirements and gear restrictions, are provided in Appendix G. Since 1996, the recreational fishing season for red snapper has become progressively shorter (Table 1.1.1). Shorter seasons have continued despite an annual increase in the quota since 2010, as the quota continues to be caught in a shorter amount of time. In 2013, the federal season was initially estimated to be 28 days. The results of the benchmark assessment (SEDAR 31 2013) were released shortly before the start of the season and allowed for an increase in the recreational and commercial quotas. With these increases, the National Marine Fisheries Service (NMFS) opened a supplementary recreational season for October 1 through 14. In 2014, red snapper harvest in federal waters was open for nine days.

Regional Management

- Would allow regions (i.e., Gulf States) to specify optimal management measures for anglers' recreational harvest of red snapper.
- The **Delegation** provision in Magnuson-Stevens Act can be used to provide authority to a state to regulate fishing vessels beyond their state waters, provided its regulations are consistent with the fishery management plan and rebuilding timeline. Requires $\frac{3}{4}$ vote of Council members to pass.
- **Conservation equivalency** refers to allowing individual regions to propose and establish varied regional management measures such that the aggregate harvest and impacts on the stock from all regions is equivalent to the conservation protections on the resource provided by Gulf-wide management measures.

Fishermen from different areas of the Gulf have requested more flexibility in recreational red snapper management so that regulations provide greater socioeconomic benefits to their particular area. Therefore, the Gulf of Mexico Fishery Management Council (Council) is considering regional management as a way to provide greater flexibility in the management of recreational red snapper. Here, regional management refers to allowing regulations to be different for identified regions of the Gulf, in contrast to uniform recreational regulations applied to the entire EEZ. This document considers two alternatives for implementing regional

¹ Recreational red snapper refers to red snapper harvested by the recreational sector.

management (Action 1): 1) delegation of limited authority to regions to specify management measures and 2) development of conservation equivalency plans, in which each region specifies the management measures (season structure, bag limit, and size limit) to be used to constrain harvest to its regional portion of the recreational annual catch limit (ACL). Under either alternative, regionally specific management measures may be more appropriate to the fishing preferences of local fishermen. For example, regional regulations could accommodate different tourist seasons or rough weather conditions, thereby optimizing fishing opportunities around the Gulf.

Table 1.1.1. Recreational red snapper federal season lengths, quotas, and landings.

Year	Federal season dates	Number of Days	Recreational Quota	Recreational Landings
1996	January 1 – December 31	365	4.47 mp	5.339 mp
1997	January 1 – November 27	330	4.47 mp	6.804 mp
1998	January 1 – September 30	272	4.47 mp	4.854 mp
1999	January 1 – August 29	240	4.47 mp	4.972 mp
2000	April 21 – October 31	194	4.47 mp	4.750 mp
2001	April 21 – October 31	194	4.47 mp	5.252 mp
2002	April 21 – October 31	194	4.47 mp	6.535 mp
2003	April 21 – October 31	194	4.47 mp	6.105 mp
2004	April 21 – October 31	194	4.47 mp	6.460 mp
2005	April 21 – October 31	194	4.47 mp	4.676 mp
2006	April 21 – October 31	194	4.47 mp	4.131 mp
2007	April 21 – October 31	194	3.185 mp	5.809 mp
2008	June 1 – August 4	65	2.45 mp	4.056 mp
2009	June 1 – August 14	75	2.45 mp	5.597 mp
2010	June 1 – July 23; Oct 1 – Nov. 21 (Fri, Sat., & Sun.)	77	3.403 mp	2.651 mp
2011	June 1 – July 18	48	3.866 mp	6.734 mp
2012	June 1 – July 16	46	3.959 mp	7.524 mp
2013	June 1 – June 28	42	5.390 mp	9.659 mp
2014	June 1 – June 9	9	5.390 mp	3.867 mp

Note: Quotas and landings are in millions of pounds (mp) whole weight. In 2014, the season length was estimated based on an ACT of 4.312 mp, reduced from the 5.390 mp quota. Source: Southeast Fisheries Science Center (SEFSC) annual catch limit dataset, including calibrated landings from the Marine Recreational Information Program (MRIP), Texas Parks and Wildlife Department (TPWD), and the Southeast Headboat Survey (HBS) (May 2015).

Regional management would allow for certain management measures (such as bag limits and season dates) to vary around the Gulf, enabling the establishment of recreational red snapper management measures most suited to a given region. Regional management may not result in additional fishing days. However, providing flexibility to the regions to establish management measures most appropriate locally is expected to result in social and economic benefits by providing optimal fishing opportunities for a region’s share of the recreational ACL (quota). Nevertheless, proposed regional measures must achieve the same conservation goals as the federal management measures in existence at a given time (i.e., constrain the catches of

participating fishermen to the region's allocation of the total recreational ACL). Red snapper would remain a federally managed species. The Council and NMFS would continue to oversee management of the stock. This includes continuing to comply with the mandate to ensure the red snapper annual recreational ACL is not exceeded and that conservation objectives are achieved. The Scientific and Statistical Committee would continue to determine the acceptable biological catch (ABC), while the Council and NMFS would determine the total recreational red snapper ACL which would be allocated among the regions, and potentially components. All federal regulations for the harvest of red snapper would remain effective. The existing bag limit, minimum size limit, and season start date would be designated the default federal regulations, and would be applied to a region not participating in regional management or to a region for which regional management is not active. NMFS would retain authority for the remaining management components, provided in Appendix G, including implementing ACL adjustments, regulating permits, and managing the commercial red snapper individual fishing quota (IFQ) program.

There are benefits and challenges to adopting regional management. The benefits include providing regional level flexibility in the design of management measures. The consideration of regional differences in regulations may allow for optimization of social and economic benefits. For example, the distance from shore that anglers must travel to fish and the optimal times of year for fishing due to weather conditions or tourist seasons may vary, favoring different fishing seasons around the Gulf. The challenges of a regional management approach include a more complex regulatory program, because the recreational ACL, and potentially component ACLs, would need to be divided and managed separately for each region. Regional management also requires cooperation among federal and state marine resource managers. Effort shifting between regions may reduce the effectiveness of regionalized management. Also, the geographic distribution of the stock may change as the stock rebuilds, resulting in a pattern of landings that may not reflect the original allocation that is distributed. Monitoring catches on a regional level may be more costly than on a Gulf-wide level and require increased sample sizes for data collection. There may also be enforcement concerns, especially at regional boundaries, should fishing seasons and bag limits vary between regions.

History of Council Discussion on Regional Management

The Council has explored the concept of regional management for red snapper for several years. Regional management was discussed by the Ad Hoc Recreational Red Snapper Advisory Panel at its October 2008 meeting, and the Red Snapper Advisory Panel at its December 2009 meeting. Staff presented papers exploring red snapper regional management to the Council at the January 2009, August 2010, and October 2010 meetings (http://www.gulfcouncil.org/resources/briefing_book_archive.php).

In June 2012, the Louisiana Department of Wildlife and Fisheries presented a proposal to the Council for a recreational red snapper regional management pilot program. The Council requested that Louisiana provide further details of their proposed regional management plan for red snapper, and instructed staff to begin developing a plan amendment for regional management of recreational red snapper. At the August 2012 meeting, the Council requested development of a scoping document for regional management of recreational red snapper, which was then

discussed at the October 2012 meeting. Scoping meetings were held in January 2013 (Appendix C). The Council reviewed an options paper at its April 2013 meeting, and the first public hearing draft at its June 2013 meeting.

At the February 2013 meeting, the Council passed a motion granting NMFS the authority to reduce the recreational red snapper season in the EEZ off a Gulf state that implements less restrictive regulations for their state-water seasons. This reduction of the federal season was to compensate for the additional harvest that would occur in state waters as a result of the incompatible regulations. In response to the Council's motion, NMFS implemented a temporary emergency rule for the 2013 season (SERO 2013a) and announced the resulting state-specific seasons. On May 31, 2013, the U.S. District Court in Brownsville, Texas, voided the emergency rule. As a result, a Gulf-wide federal recreational red snapper season was established in the EEZ off of all five Gulf States. For 2013, the federal season length was 28 days, followed by a supplemental fall red snapper season for 14 days. In 2014, the season length in federal waters was 9 days long.

NMFS determines the length of the season based on the amount of the recreational ACL (and component ACLs for 2015-2017), the average weight of fish landed, the amount of fish estimated to be caught in extended state water seasons, and the estimated catch rates over time. Per the requirements of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), NMFS closes all federal waters for the recreational harvest of red snapper when the recreational ACT (or component ACTs for the years 2015-2017) is projected to be met to ensure the entire recreational harvest, including the harvest in state waters, does not exceed the recreational ACL.

1.2 Purpose and Need

The purpose of this action is to provide flexibility in the management of the recreational sector's harvest of red snapper by restructuring the federal fishery management strategy to allow for the regional variation of management measures, and developing accountability measures for recreational overages to better account for biological, social, and economic differences among the regions of the Gulf.

The need is to adhere to the national standards (NSs) of the Magnuson-Stevens Act and to reconsider fishery management within the context of the regions of the Gulf: to prevent overfishing while achieving, on a continuing basis, the optimum yield from the harvest of red snapper by the recreational sector (NS 1); take into account and allow for variations among, and contingencies in the fisheries, fishery resources, and catches (NS 6); and provide for the sustained participation of the fishing communities of the Gulf and to the extent practicable, minimize adverse economic impacts on such communities (NS 8).

1.3 History of Management

This history of management covers events pertinent to recreational red snapper and the Council's consideration of regional management for the recreational harvest of red snapper. A complete history of management for the FMP is available on the Council's website:

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

Prior to 1997, the recreational red snapper season was open year-round. Catch levels were controlled through minimum size limits and bag limits. The Sustainable Fisheries Act of 1996 required the establishment of quotas for recreational and commercial red snapper that, when reached, result in a prohibition on the retention of fish caught by each sector, respectively, for the remainder of the fishing year. From 1997 through 1999, NMFS implemented the recreational quota requirement through an in-season monitoring process that projected closing dates a few weeks in advance. For the years 1997 through 1999, the recreational red snapper season was closed earlier each year (Table 1.1.1). In 1999, an emergency rule temporarily raised the recreational red snapper minimum size limit from 15 to 18 inches TL towards the end of the season from June 4 through 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. Additional details regarding the seasons and regulation changes for red snapper are presented in Hood et al. (2007).

A February 2000 regulatory amendment (GMFMC 2000) replaced the system of in-season monitoring and closure projections 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, 4-fish bag limit, and 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, implemented the regulatory amendment with a recreational fishing season of April 21 through October 31. This recreational fishing season 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 million pound (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.

The amendment also addressed differences in shrimp and red snapper fishing effort between the western and eastern Gulf, and the impacts of fishing on the red snapper rebuilding plan. The Council considered options for modifying recreational red snapper fishing effort, including different season opening dates and weekend only or consecutive seasons, for the following regions: Texas and the rest of the Gulf; east and west of the Mississippi River; and maintaining consistent Gulf-wide regulations. The Council ultimately opted to maintain consistent Gulf-wide

regulations, with a recreational season from June 1 through September 15. Early versions of the amendment proposed establishing regulations for commercial red snapper fishing for the eastern and western Gulf. The action was considered but rejected because establishing different regulations would compromise the objectives of the IFQ program and reduce the flexibility and efficiency of IFQ program participants.

The Southeast Data Assessment and Review (SEDAR) 7 red snapper assessment provided an option to set two regional total allowable catches with the Mississippi River as the dividing line (SEDAR 7 2005; SEDAR 7 Update 2009). These assessments assume there are two sub-units of the red snapper stock within this region, separated commercially by the Mississippi River (shrimp statistical grids 12 and 13) and recreationally at the Mississippi/Louisiana state line. The most information collected and developed thus far is based on the assessment process and follows this particular split, which is included as an alternative for regional management.

The Sustainable Fisheries Act required the NMFS Regional Administrator to close the recreational red snapper season when the quota is projected to be met. When Reef Fish Amendment 27/Shrimp Amendment 14 (GMFMC 2007) was submitted to NMFS, the Council requested that the five Gulf States adopt compatible regulations in state waters. 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 the recreational red snapper season 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 set the 2008 season to be June 1 through August 4. 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.

A February 2010 regulatory amendment (GMFMC 2010) increased the total allowable catch 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 2010). However, due to the fixed October 1 through 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 NMFS 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).

A January 2011 regulatory amendment (GMFMC 2011a) increased the red snapper total allowable catch to 7.185 mp, with a 3.521 mp recreational quota and a 3.664 mp commercial quota. The final rule also established a 48-day recreational red snapper season, running June 1 through July 19. 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, based on available recreational landings data 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 survey data, NMFS estimated that 4.4 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.

A March 2012 regulatory amendment (GMFMC 2012d) increased the commercial and recreational quotas and removed the fixed recreational season closure date of October 1. The recreational season opened 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 weather, NMFS extended the season by six days and closed on July 17.

A March 2013 framework action (GMFMC 2013a) increased the commercial and recreational red snapper quotas from a combined 8.08 mp to 8.46 mp. This was the result of new rebuilding projections based on the 2009 update assessment (SEDAR 7 Update 2009) that were revised to account for actual landings during 2009-2012. The resulting sector allocations were 4.315 mp (commercial) and 4.145 mp (recreational). NMFS published the final rule increasing the quota based on state-specific recreational red snapper seasons, which NMFS had previously announced it would do in a March 2013 emergency rule. On May 31, 2013, the U.S. District Court in Brownsville, Texas voided the emergency rule, and the Gulf-wide federal recreational red snapper season was established from June 1 through June 28. In July, the Council reviewed a new benchmark assessment (SEDAR 31 2013) which showed that the red snapper stock was rebuilding faster than projected, partly due to strong recruitment in some recent years. Combined with a new method for calculating the ABC, the Council's Scientific and Statistical Committee increased the ABC for 2013 to 13.5 mp, but warned that the catch levels would have to be reduced in future years if recruitment returned to average levels. After incorporating a buffer to reduce the possibility of having to later reduce the quota, the Council further increased the 2013 commercial and recreational quotas to a combined 11.0 mp (5.61 mp and 5.39 mp, respectively) (GMFMC 2013b). This increase occurred too late to extend the June recreational season, so the Council requested that NMFS reopen the recreational season. NMFS announced a supplemental season of October 1 through 14, 2013. In 2014, the recreational fishing season in federal waters was nine days long.

Amendment 40 (GMFMC 2014) formally adopted the use of ACLs for red snapper, established private angling and federal for-hire component ACLs for the years 2015-2017, and established separate in-season closure provisions for each component.

CHAPTER 2. MANAGEMENT ALTERNATIVES

2.1 Action 1 –Regional Management

Alternative 1: No Action – Retain current federal regulations for management of recreational red snapper in the Gulf of Mexico (Gulf) exclusive economic zone (EEZ).

Alternative 2: Establish a regional management program that **delegates** some management authority to a state or group of states (regions). Each region must establish the red snapper season structure, bag limit, and size limits for the harvest of an assigned portion of the recreational red snapper annual catch limit (ACL, or quota). If a region elects to not participate or is determined to have a red snapper harvest plan that is inconsistent with the requirements of delegation, the recreational harvest of red snapper in the EEZ off such region would be subject to the federal default regulations for red snapper.

Preferred Alternative 3: Establish a regional management program in which a state or group of adjacent states (regions) submit proposals to **NMFS** describing the **conservation equivalency measures** the region will adopt for the management of its portion of the red snapper ACL. The proposals must specify the red snapper season, bag limit, and size limits. To be a conservation equivalency plan, the proposal must be reasonably expected to limit the red snapper harvest to the region’s assigned portion of the recreational red snapper ACL. If a region does not participate or its proposal is determined by NMFS to not satisfy the conservation equivalency requirements, then the recreational harvest of red snapper in the EEZ off such region would be subject to the federal default regulations for red snapper.

Alternative 4: Establish a regional management program in which a state or group of adjacent states (regions) submit proposals to a **technical review committee** describing the **conservation equivalency measures** the region will adopt for the management of its portion of the red snapper ACL. The proposals must specify the red snapper season, bag limit, and size limits. To be a conservation equivalency plan, the proposal must be reasonably expected to limit the red snapper harvest to the region’s assigned portion of the recreational red snapper ACL. The technical review committee reviews and may make recommendations on the proposal, which is either returned to the region for revision or forwarded to NMFS for final review. If a region does not participate or its proposal is determined by NMFS to not satisfy the conservation equivalency requirements, then the recreational harvest of red snapper in the EEZ off such region would be subject to the federal default regulations for red snapper.

Alternative 5: Establish a provision to sunset regional management after:

Option a: 10 calendar years of the program.

Option b: 5 calendar years of the program.

Option c: 3 calendar years of the program.

Option d: 2 calendar years of the program.

Discussion:

Federal default regulations refer to the Gulf-wide regulations governing the recreational harvest of red snapper in the Code of Federal Regulations (50 CFR Part 622). To implement regional management by delegation or conservation equivalency (CE) measures, the current federal regulations in the Code of Federal Regulations (50 CFR Part 622) would need to be suspended while consistent delegation or CE measures are in effect. Federal default regulations for the recreational harvest of red snapper would be applied to the exclusive economic zone (EEZ) off that region in the event a region's delegation or CE measures are suspended or deemed inconsistent, or if a region does not participate in regional management. If the federal default regulations are implemented for a region, the National Marine Fisheries Service (NMFS) would publish a notice with the Office of the Federal Register announcing such an action. Currently, the federal regulations concerning bag limit, size limit, and season length include a 2-fish bag limit, minimum size limit of 16 inches total length (TL), and season opening June 1 and closing when the recreational annual catch target (ACT) is projected to be met.² The current federal regulations will serve as the default regulations for inactive regional management. These regulations have been established and revised over time through framework and regulatory amendments, which considered many ranges of reasonable alternatives and those analyses support utilizing the current federal regulations as the federal default measures.

Alternative 1 (no action) would retain current management measures for the recreational harvest of red snapper in the Gulf of Mexico (Gulf) EEZ. Currently, these measures include a 2-fish per angler per day bag limit, a 16-inch TL minimum size limit, and a June 1 fishing season start date. **Alternative 2, Preferred Alternative 3, and Alternative 4** propose different approaches to regional management for recreational red snapper. Under all alternatives, red snapper would remain under federal management jurisdiction, subject to Gulf-wide closure when the annual recreational annual catch limit (ACL) is met. Essentially, while a state or states would be given some management authority to determine the regulations to be applied in their region, it is not the complete authority advocated for by some supporters of regional management. Only the season start and end dates, season structure, bag limit, and potentially, the size limit would be eligible for modification at the regional level. Any management measures implemented for a region must adhere to the goals of the rebuilding plan and be consistent with federal and other applicable laws.

Under **Alternative 2**, regional management is defined as the delegation of limited management authority to a state or adjacent states, which would then establish appropriate management measures to constrain recreational harvest to the assigned portion of the recreational red snapper quota. The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) allows for the delegation of management to a state to regulate fishing vessels beyond their state waters, provided its regulations are consistent with the fishery management plan (FMP; Appendix D). The delegation of management authority to the states (**Alternative 2**) requires a three-quarters majority vote of the voting members of the Gulf of Mexico Fishery Management Council (Council) members.

² Recreational red snapper management measures are codified as follows in the *Federal Register*: season opening 50 CFR 622.34(b); size limit 50 CFR 622.37(a); and bag limit 50 CFR 622.38(b)(3). The regulations are also provided in Appendix G.

If **Alternative 2** is selected, it is possible that not all states will participate. Non-participating states or regions would be required to adhere to the federal default regulations, which would be applied to the adjacent EEZ for the recreational harvest of red snapper. Because participating states would still receive their allocation (Action 6), a non-participating state's season length would be determined based on the remaining balance of the recreational ACL after subtracting the regional ACLs for participating states. Thus, a single non-participating state's season length would be projected based on the amount of the recreational ACL it would have received if participating.

Preferred Alternative 3 and **Alternative 4** would adopt a process by which regions submit proposals describing the conservation equivalency of their intended management measures for the recreational harvest of red snapper. While **Preferred Alternative 3** and **Alternative 4** would grant less management authority directly to the states or regions than **Alternative 2**, all three alternatives provide comparable flexibility to the regions to modify the season structure, bag limit, and (potentially) size limit for the harvest of their portion of the red snapper recreational ACL.

Preferred Alternative 3 and **Alternative 4** differ based on the review process for the CE proposals. Under **Preferred Alternative 3**, regions would submit proposals directly to NMFS for review while under **Alternative 4**, regions would submit CE proposals to a technical review committee. The proposed process under **Alternative 4** is most similar to the Mid-Atlantic Council's management of summer flounder. The technical review committee would need to be created and populated, such as by members of the Council's Scientific and Statistical Committee. The technical review committee would provide the initial review of CE proposals and may make recommendations on the proposal, which is either returned to the region for revision or forwarded to NMFS for final review. Because of the additional time needed for the technical review committee to meet and review proposals, **Alternative 4** would entail a longer process for consistency determination than under **Preferred Alternative 3**. On the other hand, the process under **Alternative 4** provides for greater participation and input by state-level managers and stakeholders, increasing the involvement of local-level entities in the regional management process.

Alternative 5 provides sunset options for ending regional management after a specified number of years (**Options a-d**) and may be selected with any of **Alternatives 2-4**. At the time of the sunset, all associated actions in this amendment would end at that time. **Alternative 5** and an option need not be selected as preferred. If **Alternative 5** is not selected, no sunset date will be established. Should **Alternative 5** be selected as preferred and the Council decides subsequently to continue regional management, the Council would need to extend regional management through the appropriate document and process.

If selected, regional management would end after 10 calendar years (**Options a**), 5 years (**Options b**), 3 years (**Option c**), or 2 years (**Options d**). For all options, regional management would expire at the end of the tenth, fifth, third, or second calendar year of the program, regardless of the implementation date of this amendment. For example, if this amendment were to be implemented in May 2016 with **Option c** selected as preferred, regional management

would end December 31, 2018. All regulations associated with all actions in this plan amendment would expire at the sunset date, including any accountability measures (AMs).

Requirements of Delegation Provision (Alternative 2)

If delegation of recreational red snapper management is adopted (**Alternative 2**), then the management measures delegated to the individual states or groups of states must be consistent with the Reef Fish FMP, including the rebuilding plan and the Magnuson-Stevens Act. Consistency with the FMP requires, among other things, rebuilding declining reef fish stocks, monitoring the reef fish fishery, conserving reef fish habitats and increasing fish habitats, and minimizing conflicts between user groups.

The Magnuson-Stevens Act (16 U.S.C. §1856(a)(3)) outlines the procedure in the case of a state's regulations not being consistent with the FMP (Appendix D). If NMFS determines that a state's regulations are not consistent with the FMP, NMFS shall promptly notify the state and the Council of the determination and provide an opportunity for the region to correct any inconsistencies identified in the notification. If, after notice and opportunity for corrective action, the region does not correct the inconsistencies identified by NMFS, then the delegation to the region shall not apply until NMFS and the Council find that the region has corrected the inconsistencies.

In application, the response times between NMFS' determination of inconsistency and the implementation of corrective action by the state would be case specific. The timelines for correction of inconsistencies would be decided by NMFS on a case by case basis, as it determines whether inconsistencies exist. The timeline for the region's response would be dependent on the nature of the inconsistency. Due to the short season lengths and high catch rates for the recreational harvest of red snapper, the implementation of corrective actions may need to occur very quickly. Under such circumstances, the region would need to establish a process to implement corrective actions very quickly.

As a hypothetical example, if the region implemented the delegated management measures shortly before the season opened, any notification of inconsistency and the implementation of corrective action would need to occur quickly. To accomplish this, the region would need to have the authority to close the season and adjust the bag limit perhaps without having an opportunity to discuss the issue at a formal commission meeting. Alternatively, if the region implemented regulations several months before the opening of the red snapper recreational season, then a longer response time would be possible. This scenario may also allow for the discussion of the issue at a formal commission meeting. These scenarios exemplify the need for case-by-case timelines for the region's response to a notification of inconsistency.

A region may decide to opt out of delegation and request the federal default measures be applied to the adjacent EEZ (Figure 2.1.1) for the recreational harvest of red snapper. To opt out of delegation, the region should send a letter to NMFS requesting the federal default regulations be applied to their region for the fishing year. A season length would be calculated by NMFS based on the region's ACL as apportioned in Action 6. Inherently, if only one region opts-out, then it

would still essentially be constrained by the terms of delegation as per the regional area and quota apportionment.

Under delegation, the EEZ could potentially remain open year-round, and anglers' access to harvesting red snapper from the EEZ would be constrained by the management measures established for their region. Each region would prohibit further landings after its portion of the quota has been caught. Under certain conditions, the EEZ off a given region could be closed. To be consistent with national standard 4 of the Magnuson-Stevens Act, these closures should apply to all recreational vessels.

Requirements of Conservation Equivalency (Preferred Alternative 3 and Alternative 4)

Under **Preferred Alternative 3**, each state would have the opportunity to submit a Conservation Equivalency Plan (CEP) to establish regionalized management measures for the recreational harvest of red snapper on a yearly basis. These plans would be reviewed by NMFS to insure the proposed management measures are a conservation equivalent to the federal regulations. Table 2.1.1 provides an example timeline for the submittal and approval of the CEPs. This process would be altered for the first year of the program if this action is implemented mid-year. In addition, revisions of this process may be implemented by NMFS as necessary. In this instance, NMFS would contact the states and notify them of any changes.

The timeline for the CEP review is specifically designed to allow the State or region an opportunity to use preliminary data from their monitoring plans and Wave 4 of MRIP prior to submitting their plan. In addition, the timeline allows the State or region an opportunity to submit a revised CEP for approval. If the proposed management measures extend beyond the range analyzed in this amendment, then NMFS may recommend preparing an environmental assessment (EA). If a state would need to prepare an EA, NMFS anticipates providing guidance to the state; however, the state would need to take the lead on the document development and understand that it may take longer to process the CEP and require additional rulemaking. Preparing an EA would require additional time for processing and implementation.

Under **Alternative 4**, the CEP would be submitted to the technical review committee and a separate timeline may be established by the committee. The finalized plans with the technical review committee recommendation for approval would need to be submitted to NMFS by November 1st to allow time for to publish a notice in the federal register by January 1st identifying States with approved CEPs. States without approved CEPs would be subject to the federal default regulations.

Table 2.1.1. Example timeline for the review of CEPs by NMFS.

Timeline	Description
July 1 st	The State or region provides a brief written description of its preliminary CEP for the following year (e.g., the regulations they hope to implement the following year if supported by the current year landings and effort data) to NMFS. At this time, NMFS may flag any high-level concerns or alternative process requirements (e.g., additional National Environmental Policy Act (NEPA) documentation required if the proposed regulations are outside the scope of analysis in Amendment 39).
September 1 st	The State or region submits the CEP to NMFS for review.
October 1 st	NMFS responds to the State or region with the preliminary determination whether the plan is a conservation equivalent to the federal default regulations. At this time, NMFS may approve the plan or request a revised CEP.
October 15 th	The State or region provides a revised CEP to NMFS for approval, if necessary.
November 1 st	NMFS provides final approval for CEPs. If the CEP was not approved or did not submit a CEP, then the State or region would be subject to the federal default regulations.
January 1 st (or sooner)	NMFS publishes a notice in the federal register identifying States with approved CEPs. States without approved CEPs would be subject to the federal default regulations.

Each CEP should include the following contents:

- Point of Contact for the CEP
- Point of Contact with the authority to close the fishery
- Proposed CEP including season structure, bag limit, and size limit.
- Specify if the CEP is intended to be applicable for one or two years. Prior to approving the second year of the plan, it would be evaluated based on data from the first year. The plan may require revisions based on the NMFS review.
- Analysis demonstrating the ability of the CEP to constrain recreational harvest of red snapper to the allocated quota with a description of the methodology.
- Summarize the previous year’s performance (e.g., Was the harvest constrained at or below the regional quota?).
- Explain how the CEP will be enforced
- If applicable, provide a description of the in-season monitoring program and plan to close the fishery if the quota is reached.
- If necessary, the NEPA documentation supporting the proposed CEP. This would only apply for a CEP management strategies beyond the range analyzed in Amendment 39.
- Any other supporting documentation for the CEP, such as scientific research.

Application of Federal Default Regulations

Under **Alternative 2**, **Preferred Alternative 3**, or **Alternative 4**, the selected suite of management measures to be established for a region could consist of numerous combinations and ranges. Although there is flexibility in the assemblage of management measures to be adopted for a region, each region must establish its season dates and structure, bag limit, and minimum size limit. If a region does not establish a season, bag limit, and minimum size limit, then NMFS will deem the region's regulations inconsistent. If the inconsistency is not resolved and NMFS suspends the region's regional management, the federal default regulations will go into effect for the region's portion of the EEZ (Figure 2.1.1), until the region receives approval by NMFS that the inconsistency has been remedied.

At any time, a region or regions could opt out and not participate in regional management. Although regional management would be inactive and such a region would fish under the federal default regulations, related actions in this amendment would remain effective. If one or more regions opt out of regional management, the regulations implementing the preferred alternatives selected under Actions 6 (apportioning the recreational ACL) and 7 (post-season AMs) would remain effective and applicable toward those regions until modified through a plan amendment.

If a region chooses to opt out of regional management, then federal default regulations would be necessary. A region may decide not to participate and request the federal default measures be applied to the adjacent EEZ for the recreational harvest of red snapper. This would constitute the region opting out. To opt out, the region would send a letter requesting the federal default regulations be applied to their region for the fishing year. NMFS would publish a notice in the *Federal Register* to implement the federal default regulations in the region's adjacent EEZ (Figure 2.1.1). The season length would be calculated by NMFS based on the regional ACLs as apportioned in Action 6. Inherently, if only one region opts out, then they would still essentially be constrained by the terms of regional management as per the regional area and recreational ACL apportionment. If more than one region opted out of delegation, the regional ACLs could be combined, and then NMFS would calculate the season for those portions of the EEZ no longer managed by the regions. It would be expected that these regions would adopt regulations consistent with the federal default regulations that would apply to all recreational vessels in the EEZ off such region. In turn, if a region does not set the bag limit, minimum size limit, or season length, then it is assumed that the region is opting out of regional management and the federal default management measures would apply. As per the Magnuson-Stevens Act, it would still be necessary for NMFS to prohibit the recreational harvest of red snapper if the Gulf-wide recreational ACL is reached or estimated to have been met.

Boundary Description for Figure 2.1.1.

The boundaries in Figure 2.1.1 were agreed upon by the representatives from each state marine resource agency at the February 2013 Council meeting. All lines begin at the boundary between state waters and the EEZ. Line A-B, defining the EEZ off Texas, is already codified as a line from 29°32.1' N latitude, 93°47.7' W longitude to 26°11.4' N latitude, 92°53.0' W longitude, which is an extension of the boundary between Louisiana and Texas (50 CFR 622.2). Likewise, line G-H, defining the EEZ off Florida, is codified as a line at 87°31.1' W longitude extending

directly south from the Alabama/Florida boundary (50 CFR 622.2). The other two lines have not been codified, but were negotiated between the adjacent states prior to the February 2013 meeting. Line E-F is a line at 88°23.1' W longitude extending directly south from the boundary between Alabama and Mississippi.

Line C-D is a line at 89°10.0' W longitude extending directly south from the South Pass Light in the Mississippi River delta in Louisiana. Unlike the other lines, this line is not based on the boundary between Louisiana and Mississippi because doing so would be impracticable. Louisiana has jurisdiction over the Chandeleur Islands, which extend into waters south of Mississippi. A line based on the state waters boundary just north of the islands could result in inequitable impacts on Mississippi anglers as it would identify federal waters that are off both Mississippi and Louisiana as being exclusively off Louisiana. A line based on the state land boundary would be even further west and would reduce the size of the EEZ off Louisiana. Therefore, this line was considered a fair compromise by representatives of both states.

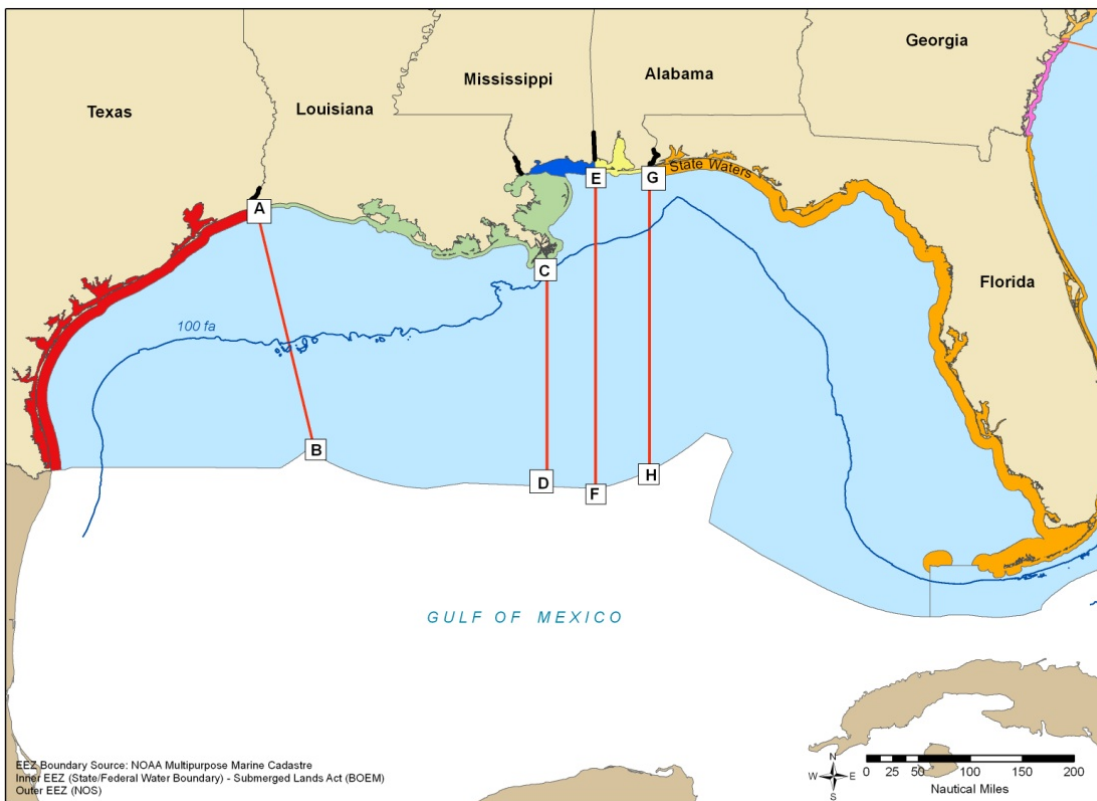


Figure 2.1.1. Map of state waters and the EEZ with established and proposed boundaries between states. These boundaries were agreed upon at the February 2013 Council meeting.

2.2 Action 2 – Regional Management and Sector Separation

Alternative 1: No Action – Retain current federal management of recreational red snapper in the Gulf EEZ. For the years 2015-2017, establish separate ACLs for the federal for-hire and private angling components as specified in Amendment 40.

Alternative 2: Extend the separate management of the federal for-hire and private angling components of the recreational sector and have this amendment apply to the private angling component, only. The private angling component would be managed by each region under regional ACLs that are based on the allocation selected in Action 6 and the federal for-hire component would continue to be managed Gulf-wide under its component ACL that is based on the allocation selected in Amendment 40.

Alternative 3: Extend the separate management of the federal for-hire and private angling components of the recreational sector and have this amendment apply to both components in any region intending to manage both private angling and federal for-hire components for its region. A region would specify its intent to manage both components in its CEP or state regulations under delegation. In a region that manages both components, separate private angling and for-hire component ACLs would be established under each regional ACL, based on the component allocation selected in Amendment 40 and the regional allocation selected in Action 4. In all other regions, the private angling component would be managed by each region under the regional ACLs based on the allocation selected in Action 6, and the federal for-hire component would continue to be managed Gulf-wide under a component ACL based on the allocation selected in Amendment 40.

Alternative 4: End the separate management of the federal for-hire and private angling components upon implementation of this amendment, and have this amendment apply to the entire recreational sector. The private angling and federal for-hire components would be managed by each region under regional ACLs based on the allocation selected in Action 6.

Discussion:

In October 2014, the Council took final action on Amendment 40 (GMFMC 2014) to apportion the recreational ACL between the federal for-hire and private angling components of the recreational sector for a period of three years. This Action 2 is only applicable in the event this amendment is implemented while the component ACLs are still in effect. **Alternative 1** (no action) would continue management of the for-hire and private angling components until the end of 2017, as specified in Amendment 40 (GMFMC 2014). It is possible that this alternative would allow for the component ACLs to remain in place when regional management is implemented, only to be vacated at the specified time. This may complicate the development of regional management measures. Table 2.2.1 provides a comparison of how the regions would manage the federal for-hire component and private angling component under **Alternatives 1-4**.

Alternative 2 would remove the sunset provision specified in Amendment 40 upon implementation of this amendment and continue separate management of the for-hire and private

angling components. Under this alternative, regional management would apply to the private angling component, only. Management of the federal for-hire component would be established through Amendments 41 and 42, which the Council requested to be developed at its January 2014 meeting.

Table 2.2.1. Comparison of regional management under Alternatives 1-4 for the private angling and federal for-hire components, assuming implementation of Amendment 40 (sector separation).

Under...	Regional Management...	Sector Separation...
Alternative 1	Establishes separate quotas (2015-2017) for the private angling and for-hire components.	Ends at time of sunset (end of 2017).
Alternative 2	Applies to the private angling component, only.	Is extended and the sunset is removed. The for-hire component's management will be evaluated in Amendments 41 and 42.
Alternative 3	Applies to private angling and for-hire components in the regions selected as preferred, managed under separate component ACLs. In regions not selected as preferred, regional management applies to private angling component only.	Is extended and the sunset is removed. In regions intending to separately manage the components, a for-hire and private angling ACL would be created for that region. In remaining regions, the for-hire component would be managed under Gulf-wide management, established in Amendments 41 and 42.
Alternative 4	Applies to the entire recreational sector, managed under a single recreational ACL.	Ends when regional management is implemented.

Like **Alternative 2**, **Alternative 3** would remove the sunset provision specified in Amendment 40 upon implementation of this amendment and continue the for-hire and private angling components would continue to be managed separately. **Alternative 3** differs from **Alternative 2**, by allowing each region to decide whether or not to manage the for-hire component in that region. If a region intends to manage both components, the region would specify the management measures to be applied to each component in its CEP or state regulations established for delegated management authority. For a region choosing to manage both components, the region's ACL would be apportioned into component ACLs for that region, applying the allocation formula in Amendment 40, to that state's landings of red snapper by each component. This could result in the recreational ACL being divided into as many as ten ACLs (and corresponding ACTs) to represent each state or region, and each component. For a region intending to manage the private angling component, only, the regional ACL would not be further divided and the for-hire component would continue to be managed by a shared set of measures established for the for-hire component.

Alternative 4 would end the use of separate component ACLs concurrent with implementation of this amendment, even if the three-year period of sector separation has not expired. Adopting

Alternative 4 would apply regional management and the actions herein to the entire recreational sector.

Assuming that five regions representing each Gulf State will be established under this amendment, the recreational ACL would be divided into a different number of component ACLs, regional ACLs, or regional component ACLs depending on the alternative selected (Figure 2.2.1). Currently (**Alternative 1**), the recreational ACL is divided into two component ACLs for the years 2015-2017 and will revert to a single recreational ACL in 2018. Six ACLs would be established under **Alternative 2**, including five regional ACLs and one component ACL. By allowing each region to determine whether or not to manage both the for-hire and private angling components, up to 10 ACLs may need to be established for **Alternative 3**, including regional component ACLs for those regions intending to manage both components. If some regions managed both components while others did not, the for-hire component ACL would be reduced by the amount of quota for the respective regional for-hire component ACLs. Under **Alternative 4**, component ACLs would no longer be used. Instead, five regional ACLs would be established, representing each region or state.

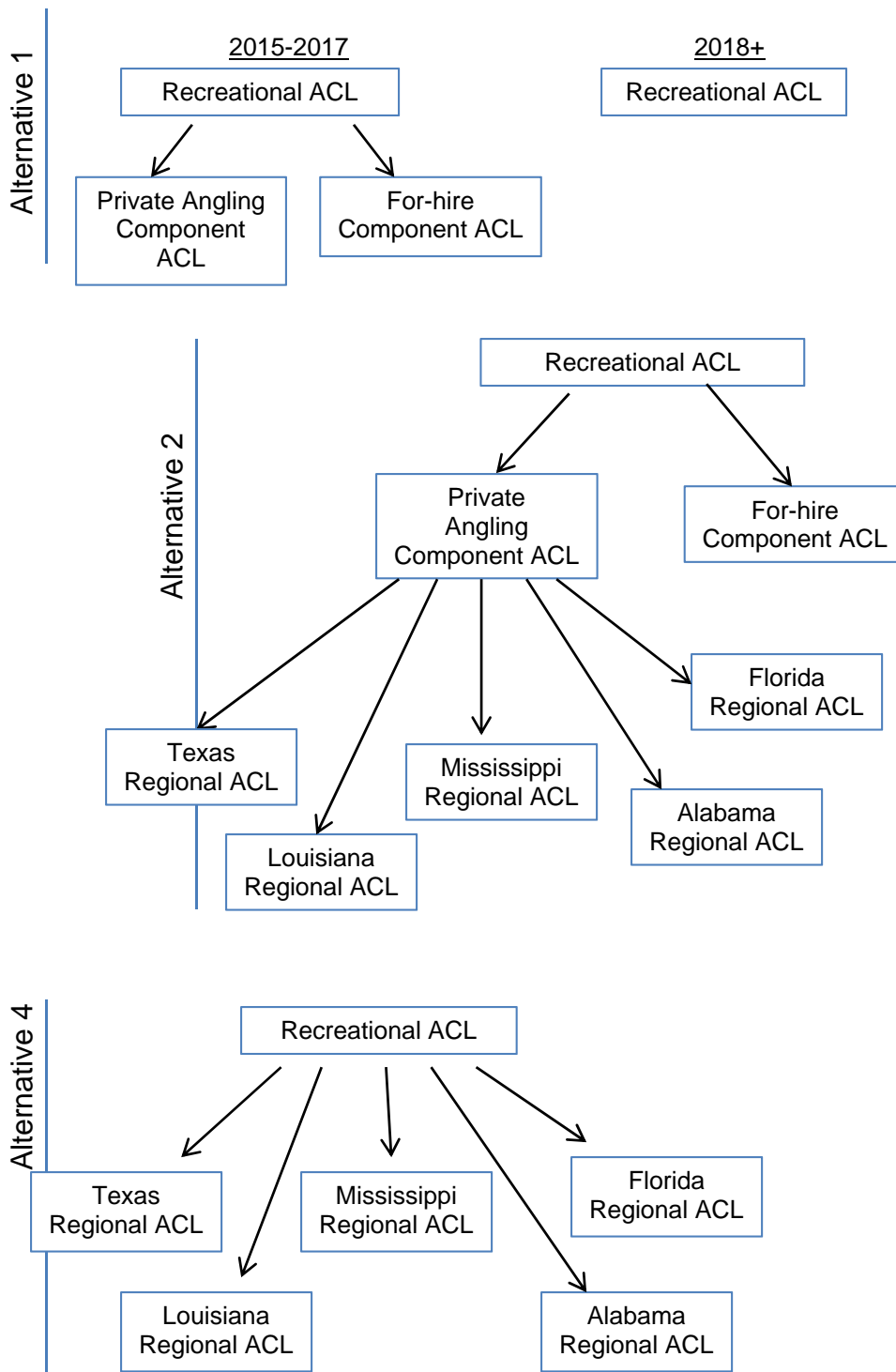


Figure 2.2.1. Diagram showing the ACLs which would be established under Alternatives 1, 2, and 4. Up to ten ACLs may be established under Alternative 3, not shown above.

2.3 Action 3 – Establish Regions for Management

Alternative 1: No Action – Retain the current management of recreational red snapper in the Gulf EEZ as one region.

Alternative 2: Establish an east (Florida, Alabama, Mississippi) and west (Louisiana, Texas) region and allow for different management measures for each region.

Alternative 3: Establish an east (Florida, Alabama) and west (Mississippi, Louisiana, Texas) region and allow for different management measures for each region.

Alternative 4: Establish five regions representing each Gulf State.

Preferred Alternative 5: Establish five regions representing each Gulf State, which may voluntarily form multistate regions with adjacent states.

Discussion:

Under **Alternative 1** (no action), management measures would remain the same for the recreational harvest of red snapper in the entire Gulf EEZ. Currently those regulations specify a June 1 fishing season start date, a 16-inch TL minimum size limit, and a 2-fish per angler per day bag limit. Additionally, captain and crew are prohibited from retaining a bag limit while under charter. The remaining alternatives propose to divide the Gulf into regions, using the boundaries specified in Figure 2.3.1.

Alternatives 2 and 3 would establish two regions: eastern and western Gulf. In both alternatives, Florida and Alabama make up the eastern region, and Louisiana and Texas make up the western region. The alternatives differ in that Mississippi is part of the eastern region under **Alternative 2**, and is part of the western region in **Alternative 3**. Because **Alternatives 2 and 3** include more than one state in a region, the states sharing a region would need to agree on the set of shared management measures and to close the region's red snapper season when the ACT is reached or projected to be reached.

Alternative 2 would divide the Gulf into regions that most closely approximate the eastern and western sub-units used in the red snapper stock assessment, thereby affording the possibility to adopt regional management measures based on the differences in biological abundance. The Red Snapper Benchmark Assessment (SEDAR 31 2013) estimated that the western Gulf sub-unit would carry a disproportionate burden of stock recovery. This is true for two reasons, first because it is currently estimated to have higher stock biomass and second because the average fishing mortality rate at age is estimated to be lower in the western Gulf compared to the eastern Gulf (SEDAR 31 2013). Therefore, the eastern and western sub-units of the red snapper stock are projected to rebuild at different rates based on current estimates of population abundance. However, the ultimate result of increasing fishing pressure on the eastern sub-unit compared to the western sub-unit is that the eastern component is projected to continue to be prosecuted on mostly small, young fish which is projected to result in a truncated population age distribution.

A red snapper larval transport study in the northern Gulf examined the potential for repopulating the eastern Gulf stock through larval transport from the more populous western stock (Johnson et al. 2009). Red snapper larval abundance was determined to be twice as great over the Louisiana-Texas shelf as over the Mississippi-Alabama shelf and four times as great over the Mississippi-Alabama shelf as over the west Florida shelf (Hanisko et al. 2007). Hanisko et al. (2007) compared the larval abundance from fall plankton studies in the eastern Gulf and determined the area off Mississippi/Alabama was disproportionately smaller than off west Florida, but accounted for half the abundance of red snapper larvae in the eastern Gulf.

A problem with using the sub-units of the stock assessment is that the dividing line used in the assessment does not fall precisely along a state boundary. Thus, there would be a difference in using the proportion of the red snapper suggested by the stock assessment that could be taken from each sub-unit (Action 4, Alternative 5), and the proportion of aggregated states' landings coinciding with the selection of **Alternative 2**, which most closely approximates the boundary used in the stock assessment. This difference would be even greater if **Alternative 3** is selected as preferred, as the western region's boundary would also include Mississippi. Although the regional boundary under **Alternative 3** is further to the east than **Alternative 2** (and thus deviates further from the sub-units of the stock assessment), including Mississippi in the same region as Louisiana rectifies the issue that the eastern portion of Louisiana's state water boundary essentially obstructs Mississippi's access to the EEZ from its state waters (Figure 2.3.1). **Alternative 4** would establish each Gulf state as its own region. This alternative would provide the most flexibility to individual states to determine their choice of management measures. Should a region fail to implement regional regulations consistent with the FMP, that region would harvest red snapper under the federal default management measures.

Generally, establishing more regions (such as under **Alternative 4** or **Preferred Alternative 5**) will mean a more subdivided quota and entail more complicated management. For example, under current management, state and federal waters Gulf-wide are open during the red snapper season. By allowing regions to set their own fishing seasons, some regions of the Gulf could be open while others are closed. Bag limits and size limits may also vary among regions. Therefore, enforcement will be conducted dockside, primarily. At sea enforcement could be most complicated near the boundaries between regions with different management measures, as it could be difficult for enforcement agents to determine which region's jurisdiction applies to a recreational vessel. In these cases, it is assumed that enforcement agents would consider the most liberal of the regions' management measures in place at the time, to serve as guidelines for determining regulatory compliance. For example, if no region has a bag limit greater than four red snapper per person per day, then a vessel possessing red snapper in excess of this bag limit, regardless of where in the EEZ it is fishing, could be in violation if stopped by enforcement agents.

Preferred Alternative 5 is most similar to **Alternative 4**, but would allow one or more regions to choose to form multistate regions with adjacent states. While this additional measure of flexibility could allow regions to pool their portions of the recreational quota, it would also require cooperation among states included in the region.

There are also issues with using the Marine Recreational Information Program (MRIP) catch estimates for states where species are infrequently sampled. This may occur if a given species is rarely captured or if there are relatively few sample locations in a state. These situations increase proportional variability, resulting in additional scientific or management uncertainty that could affect the use of these data. These problems can be mitigated by increasing: 1) the intensity of sampling, 2) spatial extent of the sample frame (e.g., Gulf-wide variability is less than estimates for individual states), or 3) lengthening the time-period used to develop catch estimates (i.e., wave-length). In practice, each of these measures has impediments. For example, funding may be inadequate to support additional monitoring and temporal or spatial resolution may not match management needs. This should be considered when developing management frameworks. In addition, Texas Parks and Wildlife Department (TPWD) uses its own survey for estimating catches, using a different methodology than MRIP. Also, Louisiana Department of Wildlife and Fisheries announced on September 5, 2013 that the state will no longer participate in MRIP. If regional management is established at the state level, this could create a question of whether the catch estimates for Texas and Louisiana are comparable to those of the other states.

If one or more states are combined into a region (**Alternatives 2, 3, and Preferred Alternative 5**), then the outermost state boundaries would be used to define the geographic region (Figure 2.1.1). In addition, the Council could choose to establish new jurisdictional lines to define regions.

2.4 Action 4 – Modify the Federal Minimum Size Limit

Alternative 1: No Action – Retain current federal regulations for the minimum size limit for recreational red snapper in the Gulf EEZ. The minimum size limit is 16 inches TL.

Alternative 2: Reduce the federal minimum size limit to 14 inches TL.

Preferred Alternative 3: Reduce the federal minimum size limit to 15 inches TL.

Alternative 4: Increase the federal minimum size limit to 17 inches TL.

Alternative 5: Increase the federal minimum size limit to 18 inches TL.

Discussion:

Varying the minimum size limit among regions may pose additional issues in terms of the stock assessment. Currently, the minimum size limit for red snapper is 16 inches TL (**Alternative 1**) in the Gulf for recreational anglers and for all Gulf States except Texas. In the state waters off Texas the current recreational red snapper minimum size limit is 15 inches TL. During early deliberations on regional management, the Council expressed their intent to establish limitations on the minimum size limits which may be adopted by the regions at their April and June 2013 Council meetings due to biological concerns such as high-grading and discard mortality. Red snapper is still under a rebuilding plan and stock assessments must take into account minimum size limits for each sector and gear type.

Discard mortality plays a large factor in considering minimum and maximum size limits in the Gulf. The current commercial minimum size limit is 13 inches TL. One of the original reasons the Council decided to allow the commercial sector to harvest red snapper at 13 inches TL was due to the number of dead discards (GMFMC 2007). The commercial sector is estimated to have greater discard mortality rates than the recreational sector due to gear types and depth fished (GMFMC 2007; SEDAR 7 2005; SEDAR 31 2013). Based on the yield-per-recruit (YPR) analysis conducted by the Southeast Fisheries Science Center (SEFSC) in 2013, yield is maximized at 15 inches TL. Due to the status of the red snapper stock and selectivity patterns, minimum size limits from 14 to 18 inches TL are considered effective and are included in the alternatives. It should be noted that spawning potential ratio (SPR) increases for red snapper as the minimum size limit increases

(<http://gulfcouncil.org/docs/Presentations/Gulf%20Red%20Snapper%20Size%20Limit%20Analysis%20-%20Presentation.pdf>).

The Council requested an interim rule during the June through August 1999 recreational red snapper fishing season, that increased the minimum size limit from 15 to 18 inches TL (64 FR 30455-Interim Rule Red Snapper). The Council requested this increase in minimum size limit to slow harvest and increase the recreational fishing season length by 24 days. The interim rule was initially supported by fishermen; however, the Council received numerous complaints from fishermen after the season about releasing dead red snapper. Consequently, since that time the Council has not considered raising the red snapper minimum size limit above 18 inches TL.

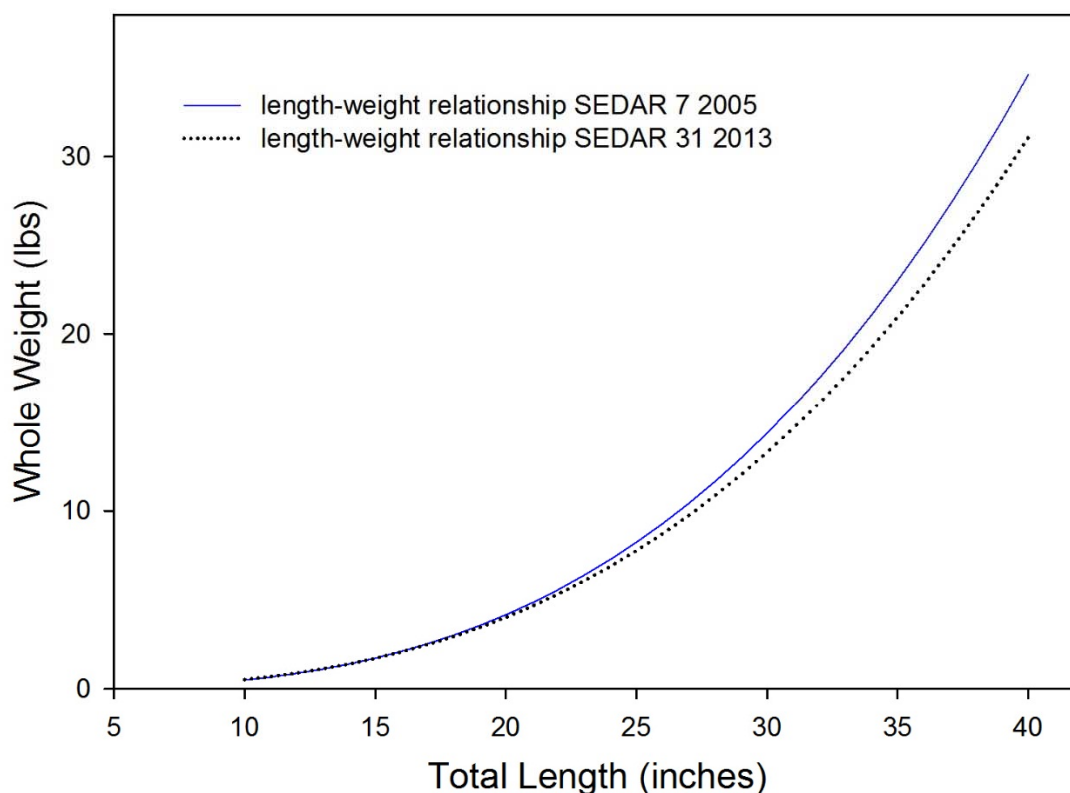


Figure 2.4.1. Red snapper length-weight relationship. Source: Conversion factors from SEDAR 7 2005, Appendix 1, Table 12 and SEDAR 31 2013, page 89 of the assessment report.

Based on length-weight relationship of red snapper used during SEDAR 7 (2005) and SEDAR 31 (2013), a 16-inch TL red snapper is estimated to weigh 2 lbs ww and a 28-inch TL red snapper is estimated to weigh 11 lbs ww (Figure 2.4.1). The average size of recreational red snapper landed in 2012 was 8 lbs ww and approximately 24 inches TL (SERO 2012b). Larger older females produce more eggs and spawn more frequently throughout the season than younger, smaller red snapper (Collins et al. 2001; Porch et al. 2013-SEDAR 31-AW03).

Discard mortality of red snapper could increase from the regional modification of seasons, bag limits, and size limits. Recreational discard mortality of red snapper was estimated by eastern and western region in SEDAR 7 (2005) and in SEDAR 31 (2013). The report found regardless of study methodology or eastern versus western Gulf, a consistent trend among discard mortality data was suggested by a positive correlation between depth and release mortality. The release mortality for recreational caught red snapper was averaged by eastern and western Gulf and estimated at 21% (Table 6.5 in SEDAR 7 2005). The most recent stock assessment estimated discard mortality for the recreational sector at 10% for the eastern and western Gulf (SEDAR 31 2013). However, the data workshop report noted that release mortality was related less to region and more on a combination of factors including, but not limited to, depth, thermal stress, venting versus non-venting, and handling time.

2.5 Action 5 – Closures in the Gulf EEZ

Alternative 1: No action – Regions may not establish closed areas in the EEZ adjacent to their region.

Preferred Alternative 2: A region may establish closed areas within the EEZ adjacent to their region in which the recreational harvest of red snapper is prohibited.

Option 2a: Areas of the Gulf EEZ may be closed year round.

Option 2b: Areas of the Gulf EEZ may be closed for up to six months of the year.

Option 2c: No more than 50% of the area of the EEZ adjacent to a region may be closed during the year.

Alternative 3: Establish a Gulf-wide boundary within the EEZ shoreward of which the recreational harvest of red snapper is permitted.

Option 3a: The recreational harvest of red snapper is permitted within **9 nautical miles** (3 marine leagues) from shore, only.

Option 3b: The recreational harvest of red snapper is permitted within **20 nautical miles** from shore, only.

Option 3c: The recreational harvest of red snapper is permitted within the **20-fathom curve** (approximating 120 feet/36.6 meters depth), only.

Option 3d: The recreational harvest of red snapper is permitted within the **30-fathom curve** (approximating 180 feet/54.9 meters depth), only.

Discussion:

Under **Preferred Alternative 2** and **Alternatives 3**, the fixed recreational closed season for red snapper in the Gulf EEZ would be removed, except remain as part of the federal default regulations. (See the discussion under Action 1.) Removal of the fixed closed season would be for the purpose of allowing individual regions to establish their season structure under either delegation or a conservation equivalency determination, and to consider alternative closures in the Gulf EEZ.

In general under regional management, the Gulf EEZ would remain open year round to the recreational harvest of red snapper. To constrain effort, regions (states) would announce the dates for the recreational harvest of red snapper, and enforcement would be carried out dockside. When a state closes the recreational harvest of red snapper, this would not prevent recreational vessels from other regions (states) fishing in the EEZ off the state with the closed season.

Preferred Alternative 2 would allow a region to restrict recreational vessels from harvesting red snapper from a designated part of the EEZ adjacent to their region (Figure 2.1.1), during a specified time of the year. Authority already rests with the states to establish closures within their state waters and to prohibit landings in their state waters. The intent of this alternative is to provide the regions with flexibility to spatially control where their apportioned part of the quota

is harvested within their region. For example, Florida may want to establish different fishing seasons for the Panhandle and west Florida due to variations in weather conditions or tourism seasons. This alternative would not allow regions to establish marine protected areas within their portion of the EEZ nor restrict commercial vessels from harvesting red snapper from these areas.

The authority to close areas of a region’s EEZ (**Preferred Alternative 2**) could unintentionally allow, or prohibit, some harvest of red snapper to occur. These issues could be most problematic near state boundaries. For example, a region could use this alternative to prohibit recreational vessels from retaining red snapper from its portion of the EEZ (Figure 2.1.1) while allowing its state waters to remain open. This use of the closed area alternative could be expected to extend the fishing season by constraining the harvest coming from part of the region’s jurisdiction. To provide a hypothetical example, say Alabama were to close its portion of the EEZ but allow state waters to remain open, while Florida and Mississippi have both their state waters and federal portion of the EEZ open (Figure 2.5.1). Under this scenario, vessels from Alabama would not be prohibited from harvesting red snapper from the EEZ off Florida and Mississippi, and landing in Alabama, provided they do not transit through Alabama’s portion of the EEZ. Although Alabama intended to extend its fishing season by constraining where harvest may occur (only in its state waters), the additional harvest from the EEZ off neighboring Mississippi or Florida could result in Alabama’s regional ACL being caught faster. Conversely, vessels from Mississippi and Florida, where the red snapper season is open in both state and federal waters, would be prohibited from retaining red snapper from Alabama’s portion of the EEZ, even though those fish would only count against the regional ACL of the state where landed, i.e., Mississippi or Florida. Thus, this hypothetical use of the closed area alternative unintentionally allowed for greater landings by Alabama anglers and unintentionally restricted fishing opportunities for Mississippi and Florida’s anglers.

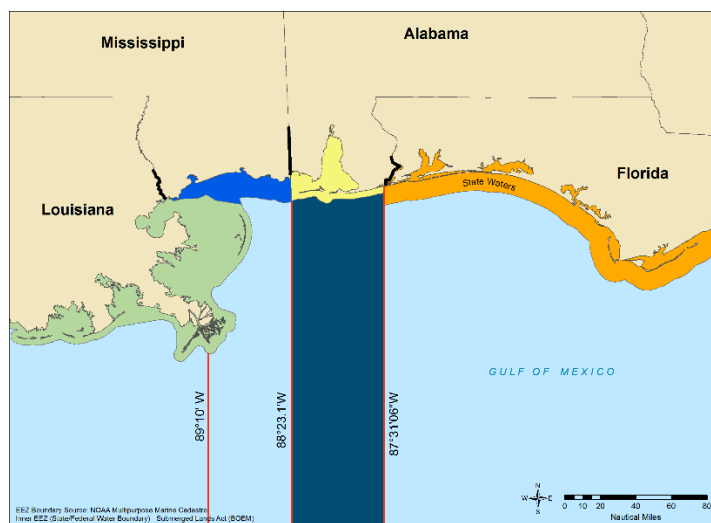


Figure 2.5.1. Visualization of the hypothetical example described for Preferred Alternative 2. The dark shaded area represents Alabama’s portion of the EEZ (see Figure 2.1.1).

Under **Alternative 3**, the recreational harvest of red snapper would only be permitted shoreward of the boundary specified in the selected option. Regardless of the recreational fishing season

established by a region, the recreational harvest of red snapper would be prohibited seaward of the boundary for any selected option, year round. **Options 3a and 3b** propose a fixed distance from shore (10 or 20 nautical miles, respectively), while **Options 3c and 3d** propose a fixed depth (20 or 30 fathoms, respectively) beyond which the recreational harvest of red snapper would be prohibited.

2.6 Action 6 – Apportioning the Recreational ACL (Quota) among Regions

Alternative 1: No Action – Retain current federal regulations for management of recreational red snapper in the Gulf EEZ. Do not divide the recreational sector ACL or component ACLs among regions.

Alternative 2: Apportion the recreational sector ACL (or component ACLs) among the regions selected in Action 3 based on the average of historical landings for the years **1986-2013**.

Alternative 3: Apportion the recreational sector ACL (or component ACLs) among the regions selected in Action 3 based on the average of historical landings for the years **1996-2013**.

Alternative 4: Apportion the recreational sector ACL (or component ACLs) among the regions selected in Action 3 based on the average of historical landings for the years **2006-2013**.

Preferred Alternative 5: Apportion the recreational sector ACL (or component ACLs) among the regions selected in Action 3 based on **50%** of average historical landings for the years **1986-2013** and **50%** of average historical landings for the years **2006-2013**.

Preferred Alternative 6: In calculating regional apportionments, exclude from the selected time series:

Preferred Option a: 2006 landings

Preferred Option b: 2010 landings

Alternative 7: Apportion the recreational sector ACL into eastern and western regional ACLs (or component ACLs) divided approximately at the Mississippi River, based on regional biogeographical differences in the stock used in the stock assessments.

Alternative 8: Apportion the recreational sector ACL (or component ACLs) among the regions selected in Action 3 such that each region's allocation provides an equivalent number of fishing days.

Discussion:

The adoption of regional management for the recreational sector ACL will require the ACL to be apportioned, or allocated, among the selected regions. This would create regional ACLs. Allocation is an inherently controversial issue because a limited resource is divided among competing user groups, each of which benefits from receiving the largest portion possible. Allocation decisions would need to follow the Principles and Guidelines for Allocation adopted by the Council (Appendix E).

Alternative 1 (no action) would maintain a single red snapper ACL (and component ACLs, if applicable) for the recreational sector. Currently, there is no expressed state allocation; the proportion of the total recreational landings made up by each state varies from year to year, as seen in Table 2.6.1.

Table 2.6.1. Percentage of annual recreational red snapper landings by state (1986-2014), based on whole weight (ww) of fish.

Year	Alabama	Florida	Louisiana	Mississippi	Texas
1986	11.5%	55.3%	18.1%	0.1%	15.0%
1987	18.5%	43.7%	13.5%	2.6%	21.7%
1988	16.4%	30.0%	33.1%	0.7%	19.8%
1989	18.5%	12.3%	24.1%	11.7%	33.3%
1990	39.7%	17.8%	16.9%	3.4%	22.2%
1991	30.1%	15.1%	33.2%	6.2%	15.5%
1992	32.7%	8.1%	24.5%	16.6%	18.2%
1993	29.3%	17.5%	22.7%	12.7%	17.9%
1994	32.1%	13.9%	21.1%	8.1%	24.7%
1995	31.9%	10.3%	28.3%	2.9%	26.6%
1996	32.8%	18.7%	16.6%	4.0%	27.9%
1997	39.1%	14.8%	16.8%	9.8%	19.5%
1998	29.8%	28.7%	14.9%	3.9%	22.8%
1999	39.7%	28.6%	15.8%	4.1%	11.8%
2000	29.6%	35.8%	18.6%	1.1%	14.9%
2001	42.3%	39.9%	6.0%	2.1%	9.7%
2002	40.1%	38.7%	6.2%	3.6%	11.4%
2003	37.9%	36.3%	8.9%	6.0%	10.9%
2004	30.0%	53.9%	5.8%	0.4%	9.9%
2005	29.1%	48.0%	10.4%	0.1%	12.5%
2006	20.0%	51.0%	12.2%	0.8%	16.0%
2007	19.5%	56.7%	15.6%	0.1%	8.0%
2008	17.1%	57.5%	15.7%	1.0%	8.6%
2009	21.6%	47.0%	18.8%	0.8%	11.8%
2010	21.3%	55.9%	5.0%	0.4%	17.3%
2011	53.6%	29.3%	8.9%	1.0%	7.2%
2012	35.9%	32.5%	19.2%	4.2%	8.2%
2013	45.8%	39.1%	5.6%	4.4%	5.1%
2014	30.0%	42.5%	16.3%	1.2%	10.0%

Source: Southeast Fisheries Science Center (SEFSC) annual catch limit dataset, including Calibrated MRIP, TPWD, and Southeast Headboat Survey (HBS) landings. Alabama and the Florida Panhandle HBS landings are initially reported to the same headboat fishing area. Landings have been assigned to each state based on the HBS vessel landing records (May 2015). Actual landings are provided in the Appendix (Table F-1).

Alternatives 2-4 and Preferred Alternative 5 propose methods for apportioning the recreational red snapper quota based on the average of historical landings for different time series. Regardless of the alternative selected, in some years, each state’s landings exceed their average. This means that requiring the states to constrain their catches to a percentage of the total quota could restrict the fluctuations in annual landings that occur in some years.

Alternatives 2-5 present four options for apportioning the recreational quota using averages of historical landings for varying time series (Table 2.6.2). **Preferred Alternative 6** provides options for excluding particular years from the historical landings averages, due to impacts that affected recreational fishing opportunities during or immediately preceding those years (e.g., fishing closures following the Deepwater Horizon MC252 oil spill). The two years provided were discussed at a joint meeting of the five Gulf States' respective heads of their natural resource departments. Hurricane Katrina struck late in the fishing season of 2005, therefore landings from 2006 are proposed for exclusion. The Deepwater Horizon MC252 oil spill began in April 2010, prior to the opening of the 2010 recreational red snapper season (see Figure 3.3.1 for the extent of the fishing closures). **Option a** would exclude landings from 2006 from each time series (Table 2.6.3), and **Option b** would exclude landings from 2010 from the time series (Table 2.6.4). Resulting averages for landings if both options are selected are provided in Table 2.6.5. The exclusion of landings from 2006 (**Option a**), 2010 (**Option b**), or both (**Options a and b**) could be selected alongside one of **Alternatives 2-5**. In Amendment 40, currently under secretarial review, the Council chose to exclude landings from 2010 (**Preferred Option b**) from the allocation formula, but did not exclude landings from 2006 (**Preferred Option a**).

Table 2.6.2. Resulting proportions of the recreational ACL that could be apportioned to each state based on four options (Alternatives 2-5) of historical landings time series.

Alternative	Years	Alabama	Florida	Louisiana	Mississippi	Texas
2	1986-2013	30.2%	33.4%	16.3%	4.0%	16.0%
3	1996-2013	32.5%	39.6%	12.3%	2.6%	13.0%
4	2006-2013	29.4%	46.1%	12.7%	1.6%	10.3%
5	50% (1986-2013), 50% (2006-2013)	29.8%	39.8%	14.5%	2.8%	13.1%

Note: Actual landings on which Tables 2.6.2 – 2.6.5 are based can be found in the Appendix (Table F-1).

Table 2.6.3. Resulting proportions of the recreational red snapper ACL that could be apportioned to each state based on four options (Alternatives 2-5) of historical landings time series, excluding landings from 2006.

Alternatives 2 -5 with Pref. Alt. 6 Pref. Option a	Years	Alabama	Florida	Louisiana	Mississippi	Texas
Alternative 2	1986-2013	30.6%	32.8%	16.5%	4.1%	16.0%
Alternative 3	1996-2013	33.3%	38.9%	12.3%	2.8%	12.8%
Alternative 4	2006-2013	30.7%	45.4%	12.7%	1.7%	9.5%
Alternative 5	50%:50%	30.6%	39.1%	14.6%	2.9%	12.7%

Table 2.6.4. Resulting proportions of the recreational red snapper ACL that could be apportioned to each state based on four options (Alternatives 2-5) of historical landings time series, excluding landings from 2010.

Alternatives 2-5 with Pref. Alt. 6 Pref. Option b	Years	Alabama	Florida	Louisiana	Mississippi	Texas
Alternative 2	1986-2013	30.5%	32.6%	16.7%	4.2%	16.0%
Alternative 3	1996-2013	33.2%	38.6%	12.7%	2.8%	12.7%
Alternative 4	2006-2013	30.5%	44.7%	13.7%	1.7%	9.3%
Alternative 5	50%:50%	30.5%	38.7%	15.2%	2.9%	12.6%

Table 2.6.5. Resulting proportions of the recreational red snapper ACL that could be apportioned to each state based on four options (Alternatives 2-5) of historical landings time series, excluding landings from 2006 and 2010.

Alternatives 2-5 with Pref. Alt. 6 Pref. Options a & b	Years	Alabama	Florida	Louisiana	Mississippi	Texas
Alternative 2	1986-2013	31.0%	31.9%	16.9%	4.3%	16.0%
Alternative 3	1996-2013	34.0%	37.8%	12.7%	2.9%	12.5%
Alternative 4	2006-2013	32.3%	43.7%	14.0%	1.9%	8.1%
Pref. Alternative 5	50%:50%	31.6%	37.8%	15.4%	3.1%	12.1%

Alternative 7 considers apportioning the ACL based on the projected yields for the acceptable biological catch (ABC) for the eastern and western Gulf, as derived from the updated projections from the 2009 assessment (Linton 2012a), and may be selected as preferred if Alternatives 2 or 3 are selected as preferred in Action 3. The resulting apportionments of the ABC from that assessment would be 48.5% for the eastern and 51.5% for the western Gulf (Linton 2012a).

As discussed in the previous action, all options for creating regions fall along state boundaries. Although the eastern and western regions proposed under Action 3’s Alternative 2 most closely approximate the eastern and western components used in the stock assessment, they do not overlap exactly. There would be a difference in using the proportion of red snapper suggested by the stock assessment that could be taken from each sub-unit, and the proportion of aggregated states’ landings coinciding with the selection of Action 2’s Alternative 2. Nevertheless, **Alternative 7** would provide a biologically based apportionment for regional management. Action 2’s Alternative 3 would also divide the Gulf into eastern and western regions, but its regional boundary, between Mississippi and Alabama, deviates further from the eastern and western components of the stock assessment than Action 2’s Alternative 2.

It is possible that one or more states may opt out and not participate in regional management. If only one state opts out, the remaining four states would still receive their portion of the ACL, as specified in the selected preferred alternative. This means that a single non-participating state’s landings would be restricted to the remaining balance of the recreational ACL (or component ACL), equivalent to the share it would receive if participating in regional management. Should

more than one state choose to opt out, the participating states would still receive their respective portions of the recreational ACL. The regional ACL which would have been distributed to each non-participating state would be pooled and NMFS would estimate the length of the fishing season based on the aggregate amount of quota. Those states would then fish under the federal default regulations and a shared fishing season (Action 7).

Alternative 8 would apportion the recreational sector ACL (or component ACLs) among regions such that the initial allocation provides an equivalent number of fishing days for each region. To calculate regional allocations such that an equivalent number of fishing days results for each region, three scenarios were analyzed. The first scenario is based on projected 2015 average fish weights and 2014 catch rates for-hire vessels, and 2014 catch rates and average fish weights for landings made from private angling vessels and headboats. The second scenario is based on the observed catch rates and average fish weights for all sectors and components using 2014 landings from Wave 3. The third scenario is based on the observed catch rates and average fish weights for all sectors and components during the June 1-9, 2014 federal red snapper fishing season. These projection methodologies are discussed in greater detail in SERO-LAPP-2015-04. Each scenario produces a slightly different allocation, as each scenario is based on different information, including landings by mode and time series. Thus, a range of potential allocations derived from the three scenarios is provided in Table 2.6.6. Under projected 2015 catch rates, eastern Gulf States would require more allocation and western Gulf States would require less allocation than currently allocated under **Preferred Alternative 5** (Table 2.6.6). This is primarily due to the rapid growth of eastern Gulf catch rates in recent years.

Table 2.6.6. Resulting proportions of the recreational sector ACL that could be apportioned to each state such that each region’s allocation provides an equivalent number of fishing days (Alternative 8) at the time of apportionment.

State	Alabama	Florida	Louisiana	Mississippi	Texas
Allocation range	34.6-41.7%	45.3-54.9%	6.1-7.6%	0.4-0.5%	4.0-4.9%
Difference from Table 2.6.5 Alt 5	3.0-10.1%	7.5-17.1%	-9.3--7.8%	-2.7--2.6%	-8.1--7.2%

Source: SERO-LAPP-2015-04, N. Farmer, pers. comm.

An additional issue may arise for individual regions to monitor and constrain catches to their apportioned regional ACL. NMFS regularly issues exempted fishing permits (EFPs) for research or activities which would otherwise be considered fishing. Fish harvested under an EFP are exempt from specific regulations such as bag limits, size limits, and fishing seasons. Because the fish landed under a research activity EFP are normally accounted for in the stock assessment process, before any quotas or allocations are established, these fish are not deducted from the quota. However, there are instances where NMFS may determine that an EFP is specific to a fishing quota or allocation, and may require the regions to account for those fish during a fishing season. If a quantity of fish under an EFP is required to be monitored and accounted for by regions under regional management, the region will be responsible for accounting for these landings, along with their other monitoring to assure they do not exceed their portion of the ACL.

2.7 Action 7 – Post-Season Accountability Measures (AMs)

Alternative 1: No action – Retain the current post-season accountability measures for managing overages of the recreational sector ACL in the Gulf EEZ. While red snapper are overfished (based on the most recent Status of U.S. Fisheries Report to Congress), if the recreational sector ACL (quota) is exceeded, reduce the **recreational sector** ACL in the following year by the full amount of the overage, unless the best scientific information available determines that a greater, lesser, or no overage adjustment is necessary. The component ACLs for the years 2015-2017 will be adjusted to reflect the component allocation, and the recreational ACTs will be adjusted to reflect the previously established percent buffer.

Preferred Alternative 2: While red snapper are overfished (based on the most recent Status of U.S. Fisheries Report to Congress), if the combined recreational landings exceed the recreational sector ACL, then reduce in the following year the regional ACL of any **region** that exceeded its regional ACL by the amount of the region's ACL overage in the prior fishing year. The recreational ACTs will be adjusted to reflect the previously established percent buffer.

Alternative 3: While red snapper are overfished (based on the most recent Status of U.S. Fisheries Report to Congress), if the combined recreational landings exceed the recreational sector ACL, then reduce in the following year the **component** ACL (for-hire and/or private angling) by the full amount of the respective component's overage unless the best scientific information available determines that a greater, lesser, or no overage adjustment is necessary. The regional ACLs will be adjusted to reflect the regional allocations and the recreational ACTs will be adjusted to reflect the previously established percent buffer.

Alternative 4: While red snapper are overfished (based on the most recent Status of U.S. Fisheries Report to Congress), if the combined recreational landings exceed the recreational sector ACL, in the following year: reduce the **component** ACLs by the full amount of a component's ACL overage; for the private angling component's ACL (or the for-hire component ACL, if for-hire regional ACLs are established), reduce the regional ACL of any **region** that exceeded its regional ACL by the amount of the region's ACL overage in the prior fishing year. The recreational ACTs will be adjusted to reflect the previously established percent buffer.

Note: For **Alternatives 2-4**, the overage would be deducted from the regional ACL and/or component ACL, rather than the recreational sector ACL, as specified in the alternative, unless the best scientific information available determines that a greater, lesser, or no overage adjustment is necessary. Also, if the total recreational landings do not exceed the Gulf-wide recreational sector ACL in that year, neither the recreational sector ACL nor the regional and/or component ACLs would be reduced to account for an ACL overage.

Discussion:

Section 407(d) of the Magnuson-Stevens Act requires that the Council ensure the FMP (and its implementing regulations) have conservation and management measures that establish a separate sector ACL for recreational fishing (private and for-hire vessels) and prohibit the retention of red snapper caught for the remainder of the fishing year once that sector ACL is reached. The

national standard 1 guidelines identify two types of AMs: in-season and post-season. These AMs are not mutually exclusive and should be used together where appropriate. In 2014, the Council adopted an in-season AM to create an ACT determined by deducting 20% from the ACL. To correct or mitigate any overages during a specific fishing year (50 CFR 600.310(g)), the Council also adopted a post-season AM which would reduce the recreational ACL in the year following an overage by the full amount of the overage (**Alternative 1**).

Alternative 1 (no action), would continue to apply the recently adopted post-season AM Gulf-wide. Although the possibility of triggering an overage adjustment would encourage regions to constrain harvest to the region's ACL, the Gulf-wide approach may be perceived as inequitable across regions. For example, if a particular region greatly exceeded their regional ACL, then the necessary overage adjustment may restrict the length of the following year's fishing season both in the region with the overage and the other regions which did not exceed their regional ACL. If this occurs, this may reduce the flexibility provided to the regions under regional management. If Alternative 4 in Action 2 is selected as preferred, only **Alternative 1** may be selected as preferred for this action.

Preferred Alternative 2 would apply the post-season AM only to a region or regions which exceeded its portion of the recreational ACL. With the apportionment of regional ACLs, **Preferred Alternative 2** would prevent the overage adjustment from affecting regions that do not exceed their regional ACL. However, if a region's overage is greater than the following year's regional ACL, then the region may not have a recreational red snapper season. The overage adjustments would need to be taken into account when regions develop their management strategy, including the length of the fishing season for the following year. **Preferred Alternative 2** would encourage a region to constrain harvest to the regional ACL to ensure that the overage adjustment is not applied to the recreational season for the following year. Regardless of a region exceeding its ACL, an overage adjustment would only need to be applied if the Gulf-wide recreational sector ACL was exceeded.

Alternative 3 would apply the post season AM to the component (for-hire or private angling) that exceeds its component ACL in the prior fishing year. In the event the Gulf-wide recreational ACL is exceeded, the component that exceeded its portion of the ACL would have its component ACL reduced in the following year by the amount of the overage. This alternative would prevent the overage adjustment from affecting a component of the recreational sector that does not exceed its component ACL.

Alternative 4 combines the overage adjustments of the component that exceeds its quota (**Preferred Alternative 2**) and the region **Alternative 3**, by applying the post-season AM to both a region and component that has exceeded its portion of the recreational ACL in the previous year. Although the possibility of triggering an overage adjustment would encourage both regions and the components to constrain harvest to the respective ACLs, a region and sector-wide approach may be perceived as inequitable by the different regions and components.

CHAPTER 3. AFFECTED ENVIRONMENT

The actions considered in this environmental impact statement (EIS) would affect recreational fishing for red snapper in federal and state waters of the Gulf of Mexico (Gulf). Descriptions of the physical, biological, economic, social, and administrative environments were completed in the EIS for Reef Fish Amendment 27/Shrimp Amendment 14 (GMFMC 2007), the Generic Essential Fish Habitat (EFH) Amendment (GMFMC 2004a), and the Generic Annual Catch Limits/Accountability Measures (ACL/AM) Amendment (GMFMC 2011b). Below, information on each of these environments is summarized or updated, as appropriate.

3.1 Description of the Red Snapper Component of the Reef Fish Fishery

A description of the fishery and affected environment relative to red snapper was last fully discussed in joint Reef Fish Amendment 27/Shrimp Amendment 14 (GMFMC 2007). This section updates the previous description to include additional information since publication of that EIS.

General Features

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 commercial sector operates under an individual fishing quota (IFQ) program. In 2011, 362 vessels participated in the IFQ program (NMFS 2012a). The recreational sector operates in three modes, charter boats, headboats, and private vessels. In 2012, private vessels accounted for 70.1% of recreational red snapper landings, followed by charter boats (20.3%) and headboats (9.6%). On a state-by-state basis, Alabama accounted for the most landings (36.1%), followed by Florida (32.3%), Louisiana (19.2%), Texas (8.2%), and Mississippi (4.2%) (Table 3.1.1).

Table 3.1.1. Recreational red snapper landings in 2012 by state and mode.

State	Landings (lbs whole weight)				% by State
	Charter	Headboat	Private	All Modes	
FL (west)	806,118	205,830	1,420,620	2,432,569	32.3%
AL	445,816	71,482	2,197,377	2,714,675	36.1%
MS	1,406	5,894	306,854	314,154	4.2%
LA	236,145	21,199	1,188,763	1,446,106	19.2%
TX	39,128	419,671	157,937	616,736	8.2%
Total	1,528,613	724,077	5,271,550	7,524,239	
% by Mode	20.3%	9.6%	70.1%		100%

Source: NMFS 2014.

The red snapper stock has been found to be in decline or overfished in every stock assessment conducted, beginning with the first assessment in 1986 (Parrack and McClellan 1986).

Implemented in 1990, Amendment 1 (GMFMC 1989) established the first red snapper rebuilding plan. From 1990 through 2009, red snapper harvest was managed through the setting of an annual total allowable catch (TAC), which has been divided into allocations of 51% commercial, and 49% recreational. Beginning in 2010, TAC was phased out in favor of an ACL. The red snapper rebuilding plan formally adopted the use of the term ACL in Amendment 40 (GMFMC 2014). Until that time, by allocating the acceptable biological catch (ABC) between the commercial and recreational sectors, and then setting quotas for each sector that do not exceed those allocations, the terminology and approaches used in the red snapper rebuilding plan were consistent with the use of ACLs, and optionally annual catch targets (ACTs) as discussed in the national standard 1 guidelines. Such alternative terminology is allowed under the guidelines.

Also in 1990, Amendment 1 established a commercial red snapper quota of 2.65 million pounds (mp) whole weight (ww). There was no explicit recreational allocation specified, only a bag limit of 7 fish and a minimum size limit of 13 inches total length (TL). Based on the 51:49 commercial to recreational sector allocation, the commercial quota implied a TAC of about 6.0 mp in 1990, followed by explicit TACs of 4.0 mp in 1991 and 1992, 6.0 mp in 1993 through 1995, and 9.12 mp from 1996 through 2006. The TAC was reduced to 6.5 mp in 2007 and 5.0 mp in 2008 and 2009.

In 2010, the ABC was increased to 6.945 mp. In 2011, it was initially raised to 7.185 mp, and then increased in August by another 345,000 lbs (7.530 mp total) which was allocated to the recreational sector. In 2012 the ABC was raised to 8.080 mp. A scheduled increase in 2013 to 8.690 mp was cancelled due to an overharvest in 2012 by the recreational sector. After an analysis of the impacts of the overharvest on the red snapper rebuilding plan, the 2013 ABC was increased to 8.460 mp. In July 2013, the Council reviewed a new benchmark assessment (SEDAR 31 2013) which showed that the red snapper stock was rebuilding faster than projected, partly due to strong recruitment in some recent years. Combined with a new method for calculating the ABC, the Scientific and Statistical Committee (SSC) increased the ABC for 2013 to 13.5 mp, but warned that the catch levels would have to be reduced in future years if recruitment returned to average levels. After incorporating a buffer to reduce the possibility of having to later reduce the quota, the Gulf of Mexico Fishery Management Council (Council) further increased the 2013 commercial and recreational quotas to a combined 11.0 mp (5.61 mp and 5.39 mp respectively) (GMFMC 2013b). This increase occurred too late to extend the June recreational season, so the Council requested that the National Marine Fisheries Service (NMFS) reopen the recreational season on October 1 for whatever number of days would be needed to harvest the additional quota. NMFS estimated that the additional recreational quota would take 14 days to be caught, and therefore announced a supplemental season of October 1 through 14.

Both the commercial and recreational sectors have had numerous allocation overruns. Table 3.1.2 shows a comparison of quotas and actual harvests from 1990 through 2013. The recreational sector has had allocation overruns in 21 out of 23 years in which an allocation was specified, while the commercial sector has had overruns in 10 of 23 years. The commercial sector has not had overruns since 2005. Since 2007, commercial harvest of red snapper has operated under an IFQ program.

Table 3.1.2. Red snapper landings and overage/underage by sector, 1986-2014. Landings are in mp ww. Commercial quotas began in 1990. Recreational allocations began in 1991 and recreational quotas began in 1997. Summing the recreational allocation/quota and the commercial quota yields the total allowable catch (TAC) for the years 1991-2009 and the acceptable biological catch (ABC) for 2010-2014.

Year	Recreational			Commercial			Total		
	Alloc. Quota	Actual landings	Difference	Quota	Actual landings	Diff-erence	Quota	Actual landings	Difference
1986	na	3.491	na	na	3.700	na	na	6.470	na
1987	na	2.090	na	na	3.069	na	na	4.883	na
1988	na	3.139	na	na	3.960	na	na	6.528	na
1989	na	2.940	na	na	3.098	na	na	5.754	na
1990	na	1.625	na	3.1	2.650	-0.450	na	4.264	na
1991	1.96	2.917	+0.957	2.04	2.213	+0.173	4.0	5.130	+1.130
1992	1.96	4.618	+2.658	2.04	3.106	+1.066	4.0	7.724	+3.724
1993	2.94	7.161	+4.221	3.06	3.374	+0.314	6.0	10.535	+4.535
1994	2.94	6.076	+3.136	3.06	3.222	+0.162	6.0	9.298	+3.298
1995	2.94	5.464	+2.524	3.06	2.934	-0.126	6.0	8.398	+2.398
1996	4.47	5.339	+0.869	4.65	4.313	-0.337	9.12	9.652	+0.532
1997	4.47	6.804	+2.334	4.65	4.810	+0.160	9.12	11.614	+2.494
1998	4.47	4.854	+0.384	4.65	4.680	+0.030	9.12	9.534	+0.414
1999	4.47	4.972	+0.502	4.65	4.876	+0.226	9.12	9.848	+0.728
2000	4.47	4.750	+0.280	4.65	4.837	+0.187	9.12	9.587	+0.467
2001	4.47	5.252	+0.782	4.65	4.625	-0.025	9.12	9.877	+0.757
2002	4.47	6.535	+2.065	4.65	4.779	+0.129	9.12	11.314	+2.194
2003	4.47	6.105	+1.635	4.65	4.409	-0.241	9.12	10.514	+1.394
2004	4.47	6.460	+1.990	4.65	4.651	+0.001	9.12	11.111	+1.991
2005	4.47	4.676	+0.206	4.65	4.096	-0.554	9.12	8.772	-0.348
2006	4.47	4.131	-0.339	4.65	4.649	-0.001	9.12	8.780	-0.340
2007	3.185	5.809	+2.624	3.315	3.153	-0.162	6.5	8.962	+2.462
2008	2.45	4.056	+1.606	2.55	2.461	-0.089	5.0	6.517	+1.517
2009	2.45	5.597	+3.147	2.55	2.461	-0.089	5.0	8.058	+3.058
2010	3.403	2.651	-0.752	3.542	3.362	-0.180	6.945	6.013	-0.932
2011	3.866	6.734	+2.868	3.664	3.562	-0.102	7.53	10.296	+2.766
2012	3.959	7.524	+3.565	4.121	4.000	-0.121	8.08	11.524	+3.444
2013	5.390	9.659	+4.269	5.610	5.399	-0.211	11.00	15.038	+4.038
2014	5.390	3.867	-1.523	5.054	5.016	-0.038	10.444	8.883	-1.561

Sources: For recreational landings, Southeast Fisheries Science Center (SEFSC) including landings from the Calibrated Marine Recreational Information Program (MRIP), Texas Parks and Wildlife Department (TPWD), and the Southeast Headboat Survey (HBS) (December 2014). For commercial landings, Southeast Data Assessment and Review (SEDAR) 31 Data Workshop Report (1990-2011), commercial quotas/catch allowances report from NMFS/Southeast Regional Office (SERO) IFQ landings website (2012 commercial): <http://sero.nmfs.noaa.gov/sf/ifq/CommercialQuotasCatchAllowanceTable.pdf>. Commercial quotas/landings in gutted weight were multiplied by 1.11 to convert to ww. Values highlighted in red are those where landings exceeded quotas. Data for 2014 provided by N. Farmer, pers. comm.

Recreational Red Snapper Sector

Red snapper are an important component of the recreational sector's harvest of reef fish in the Gulf. Recreational red snapper fishing includes charter boats, headboats (or party boats), and private anglers fishing primarily from private or rental boats. As with the commercial fishery, red snapper are primarily caught with hook-and-line gear in association with bottom structures. Recreational red snapper harvest allocations since 1991 have been set at 49% of the TAC, or 1.96 mp in 1991 and 1992, 2.94 mp for 1993 through 1995, and 4.47 mp from 1996 through 2006. In 2007, the recreational quota was reduced to 3.185 mp. It was reduced again to 2.45 mp in 2008 and 2009. Since 2010, the recreational quota has been increased each year: 3.403 mp in 2010, 3.866 mp in 2011, and 3.959 mp in 2012 (Table 3.1.3).

Before 1984, there were no restrictions on the recreational harvest of red snapper. In November 1984, a 12-inch TL size limit was implemented, but with an allowance for five undersized fish per person. In 1990, the undersized allowance was eliminated, and the recreational sector was managed through bag and size limits with a year-round open season. In 1997, the recreational red snapper allocation was converted into a quota with accompanying quota closure should the sector exceed its quota. Recreational quota closures occurred in 1997, 1998, and 1999, becoming progressively shorter each year even though the quota remained a constant 4.47 mp.

A fixed recreational season of April 21 through October 31 (194 days) was established for 2000 through 2007. However, NMFS returned to variable length seasons beginning in 2008. Under this management approach, due to a lag in the reporting of recreational catches, catch rates over the course of the season were projected in advance based on past trends and changes in the average size of a recreationally harvested red snapper. The recreational season opened each year on June 1 and closed on the date when the quota was projected to be reached. In 2008, the season length was reduced from 194 days to 65 days in conjunction with a reduction in quota to 2.45 mp. The season length then increased to 75 days in 2009. In 2010, the recreational red snapper season was originally projected to be 53 days. However, due to reduced effort and large emergency area closures resulting from the Deepwater Horizon MC252 oil spill, catches were below projections, and a one-time supplemental season of weekend only openings (Friday, Saturday, and Sunday) was established from October 1 through November 22. This added 24 fishing days to the 2010 season for a total of 77 days. In 2011, the season was reduced to 48 days despite an increase in the quota, due to an increase in the average size of a recreationally harvested fish. In 2012 the season was initially scheduled to be 40 days, but was extended to 46 days to compensate for the loss of fishing days due to storms (Table 3.1.3).

During the six years when the recreational harvest was an allocation, not a quota (1991 – 1996), actual recreational harvests in pounds of red snapper exceeded the allocation every year. During the period when the recreational harvest was managed as a quota (1997 – 2013), actual recreational harvest in pounds of red snapper exceeded the quota in 15 out of 17 years, including 5 of the last 6 years (Table 3.1.3). Historical recreational landings estimates have recently been revised to reflect changes in methodology under the Marine Recreational Information Program (MRIP).

Table 3.1.3. Red snapper recreational landings vs. allocation/quota and days open 1986-2014. Landings are in mp ww. Recreational allocations began in 1991, and became quotas in 1997.

Year	Allocation/ Quota	Actual landings	Difference	% over or under quota	Days season open in federal waters
1986	na	2.770	na		365
1987	na	1.814	na		365
1988	na	2.568	na		365
1989	na	2.656	na		365
1990	na	1.614	na		365
1991	1.96	2.917	+0.957	+49%	365
1992	1.96	4.618	+2.658	+136%	365
1993	2.94	7.161	+4.221	+144%	365
1994	2.94	6.076	+3.136	+107%	365
1995	2.94	5.464	+2.524	+86%	365
1996	4.47	5.339	+0.869	+19%	365
1997	4.47	6.804	+2.334	+52%	330
1998	4.47	4.854	+0.384	+9%	272
1999	4.47	4.972	+0.502	+11%	240
2000	4.47	4.750	+0.280	+6%	194
2001	4.47	5.252	+0.782	+17%	194
2002	4.47	6.535	+2.065	+46%	194
2003	4.47	6.105	+1.635	+37%	194
2004	4.47	6.460	+1.990	+45%	194
2005	4.47	4.676	+0.206	+5%	194
2006	4.47	4.131	-0.339	-8%	194
2007	3.185	5.809	+2.624	+82%	194
2008	2.45	4.056	+1.606	+66%	65
2009	2.45	5.597	+3.147	+128%	75
2010	3.403	2.651	-0.752	-22%	53 + 24 = 77
2011	3.866	6.734	+2.868	+74%	48
2012	3.959	7.524	+3.565	+90%	46
2013	5.390	9.639	+4.249	+79%	42
2014	5.390	3.867	-1.523	-28%	9

Source: Southeast Fisheries Science Center (SEFSC) including calibrated landings from MRIP, Texas Parks and Wildlife Department (TPWD), and the Southeast Headboat Survey (HBS) (May 2015). Values highlighted in red are those where landings exceeded quotas.

For-hire vessels have operated under a limited access system with respect to the issuance of new for-hire permits for fishing reef fish or coastal migratory pelagics since 2003. A total of 3,340 reef fish and coastal migratory pelagic charter permits were issued under the moratorium, and they are associated with 1,779 vessels. Of these vessels, 1,561 have both reef fish and coastal migratory pelagics permits, 64 have only reef fish permits, and 154 have only coastal migratory pelagics permits. About one-third of Florida charter boats targeted three or less species; two-thirds targeted five or less species; and 90% targeted nine or less species. About 40% of these

charter boats did not target particular species. The species targeted by the largest proportion of Florida charter boats were king mackerel (46%), grouper (29%), snapper (27%), dolphin (26%), and billfish (23%). In the eastern Gulf, the species receiving the most effort were grouper, king mackerel, and snapper. About 25% of Florida headboats targeted three or fewer species; 75% targeted four or fewer species; and 80% targeted five or fewer species. About 60% of headboats did not target any particular species. The species targeted by the largest proportion of Florida headboats are snapper and other reef fish (35%), red grouper (29%), gag grouper (23%), and black grouper (16%). In the eastern Gulf, the species receiving the most effort were snapper, gag, and red grouper (Sutton et al. 1999).

The majority of charter boats in Alabama, Mississippi, Louisiana, and Texas reported targeting snapper (91%), king mackerel (89%), cobia (76%), and tuna (55%). The species receiving the largest percentage of effort by charter boats in the four-state area were snapper (49%), king mackerel (10%), red drum (6%), cobia (6%), tuna (5%), and speckled trout (5%). The majority of headboat operators reported targeting snapper (100%), king mackerel (85%), shark (65%), tuna (55%), and amberjack (50%). The species receiving the largest percentage of total effort by headboats in the four-state area were snapper (70%), king mackerel (12%), amberjack (5%), and shark (5%) (Sutton et al. 1999).

Commercial Red Snapper Sector

In the Gulf, red snapper are primarily harvested commercially with hook-and-line and bandit gear, with bandit gear being more prevalent. Longline gear captures a small percentage of total landings (< 5%). Longline gear is prohibited for the harvest of reef fish inside of 50 fathoms west of Cape San Blas. East of Cape San Blas, longline gear is prohibited for harvest of reef fish inside of 20 fathoms, with a seasonal shift in the longline boundary to 35 fathoms during June through August to protect foraging sea turtles.

Between 1990 and 2006, the principal method of managing the commercial sector for red snapper was with quotas set at 51% of TAC and seasonal closures after each year's quota was filled. The result was a race for fish in which fishermen were compelled to fish as quickly as possible to maximize their catch of the overall quota before the season was closed. The fishing year was characterized by short periods of intense fishing activity with large quantities of red snapper landed during the open seasons rather than lower levels of activity with landings spread more uniformly throughout the year. The result was short seasons and frequent quota overruns (Table 3.1.4). From 1993 through 2006, trip limits, limited access endorsements, split seasons and partial monthly season openings were implemented in an effort to slow the race for fish. At the beginning of the 1993 season, 131 boats qualified for red snapper endorsements on their reef fish permits that entitled them to land 2,000 lbs of red snapper per trip.

In 2007, an IFQ program was implemented for the commercial red snapper sector. Each vessel that qualified for the program was issued an allocation of a percentage of the commercial quota based on historical participation. The allocations were issued as shares representing pounds of red snapper, which the fishermen could harvest, sell or lease to other fishermen, or purchase from other fishermen. Beginning in 2007, the commercial red snapper season is no longer closed, but a commercial vessel cannot land red snapper unless it has sufficient allocation in its

vessel account to cover the landing poundage. As a result, there have not been any quota overruns under the IFQ program (Table 3.1.4). The red snapper IFQ program is currently undergoing a 5-year review to determine if changes are needed to the program.

Table 3.1.4. Commercial red snapper harvest vs. days open, by sector, 1986-2014.

Year	Quota	Actual landings	Days Open (days that open or close at noon are counted as half-days) (“+” = split season)
1986	na	3.700	365
1987	na	3.069	365
1988	na	3.960	365
1989	na	3.098	365
1990	3.1	2.650	365
1991	2.04	2.213	235
1992	2.04	3.106	52½ + 42 = 94½
1993	3.06	3.374	94
1994	3.06	3.222	77
1995	3.06	2.934	50 + 1½ = 51½
1996	4.65	4.313	64 + 22 = 86
1997	4.65	4.810	53 + 18 = 71
1998	4.65	4.680	39 + 28 = 67
1999	4.65	4.876	42 + 22 = 64
2000	4.65	4.837	34 + 25 = 59
2001	4.65	4.625	50 + 20 = 70
2002	4.65	4.779	57 + 24 = 81
2003	4.65	4.409	60 + 24 = 84
2004	4.65	4.651	63 + 32 = 95
2005	4.65	4.096	72 + 48 = 120
2006	4.65	4.649	72 + 43 = 115
2007	3.315	3.183	IFQ
2008	2.55	2.484	IFQ
2009	2.55	2.484	IFQ
2010	3.542	3.392	IFQ
2011	3.664	3.594	IFQ
2012	4.121	4.036	IFQ
2013	5.610	5.399	IFQ
2014	5.054	5.016	IFQ

Source: SEDAR 31 Data Workshop Report (1990-2006), commercial quotas/catch allowances report from NMFS/Southeast Regional Office IFQ landings website (2007-2014):

<http://sero.nmfs.noaa.gov/sf/ifq/CommercialQuotasCatchAllowanceTable.pdf>.

Commercial quotas/landings in gutted weight were multiplied by 1.11 to convert to ww. Values highlighted in red are those where landings exceeded quotas.

3.2 Description of the Physical Environment

The 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 3.2.1). 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.

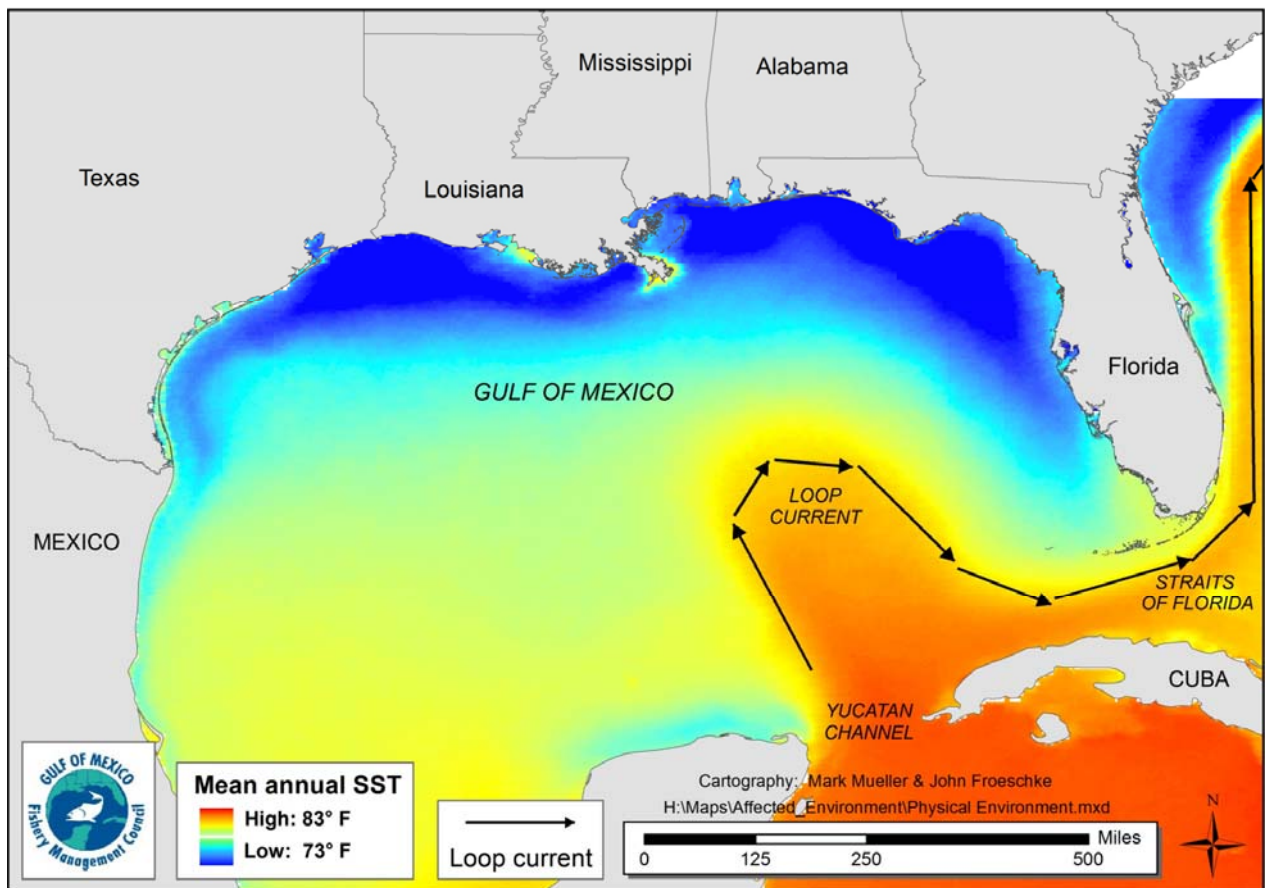


Figure 3.2.1. Physical environment of the Gulf including major feature names and mean annual sea surface temperature as derived from the Advanced Very High Resolution Radiometer Pathfinder Version 5 sea surface temperature data set (<http://accession.nodc.noaa.gov/0072888>).

There are several marine reserves, habitat areas of particular concern, and restricted fishing gear areas in the Gulf. These are detailed in GMFMC (2013a). The Bureau of Ocean Energy Management lists historic shipwrecks that occur in the Gulf. Most of these sites are in state or

deep federal (>1,000 feet) waters. There is one site located in federal waters in less than 100 feet that could be affected by reef fish fishing. This is the *U.S.S. Hatteras* located approximately 20 miles off Galveston, Texas.

In the Gulf, fish habitat for adult red snapper consists of submarine gullies and depressions; coral reefs, rock outcroppings, and gravel bottoms; oil rigs; and other artificial structures. Eggs and larvae are pelagic and juveniles are common on mud bottoms in the northern Gulf, particularly off Texas through Alabama (GMFMC 2004b).

3.3 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 EIS for the Generic EFH Amendment (GMFMC 2004a) and is incorporated here by reference.

Red Snapper Life History and Biology

Red snapper demonstrate the typical reef fish life history pattern (Table 3.3.1). 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 2004a).

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 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. Commercial landings data included commercial handline and longline landings from the accumulated landings system from 1964 through 2011. For landings between 1880 and 1963, previously constructed historical landings were used. Total annual landings from the IFQ program for years 2007-2011 were used to reapportion 2007-2011 accumulated landings system

data across strata. Recreational landings data included the MRIP/Marine Recreational Fishery Statistics Survey (MRFSS) from 1981-2011, Southeast Headboat Survey for 1981-2011, and Texas Parks and Wildlife Department survey. For the years 2004-2011, MRIP landings are available. For earlier years, MRFSS data were calibrated to MRIP estimates using a standardized approach for calculating average weight that accounts for species, region, year, state, mode, wave, and area.

Standardized indices of relative abundance from both fishery dependent and independent data sources were included in the model. The fishery dependent indices came from the commercial handline fleet, recreational headboats, and recreational private/for-hire sectors. Fishery independent indices came from the Southeast Area Monitoring and Assessment Program (SEAMAP) bottom trawl survey, SEAMAP reef fish video survey, NMFS bottom longline survey, and the SEAMAP plankton survey.

Red snapper discards in the Gulf were calculated from data collected by the self-reported commercial logbook data and the NMFS Gulf reef fish observer program. In addition to these directed fisheries discards, estimates of red snapper bycatch from the commercial shrimp fleet were also generated.

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 SSC in May 2013. Under the base model, it was estimated that the red snapper stock has been overfished since the 1960s.

Current (2011) stock status was estimated relative to two possible proxies for F_{MSY} : $F_{SPR26\%}$ (i.e., the fishing mortality rate that would produce an equilibrium spawning potential ratio (SPR) of 26%) and F_{MAX} , which corresponded to $F_{SPR20.4\%}$ (i.e., the fishing mortality rate that would produce an equilibrium SPR 20.4%). A proxy of $F_{SPR26\%}$ was previously used as the overfishing and F_{MSY} proxy in SEDAR 7 and the SEDAR 7 update assessment in 2009. F_{MAX} was evaluated as an alternative proxy because at high spawner-recruit steepness values near 1.0, such as the value of 0.99 fixed in the red snapper assessment, F_{MAX} approximates the actual estimate of F_{MSY} . However, the actual estimate of F_{MSY} is sensitive to the parameters of the spawner-recruit relationship. The SSC did not have confidence in using the direct F_{MSY} estimate due to the fact that the spawner-recruit function is poorly estimated and data exist for a very limited range of potential spawning stock biomass (SSB) for the stock. In addition, the SSC felt that the equivalent SPR for F_{MAX} (20.4%) was inappropriately low for species with life history parameters similar to red snapper. The SSC felt that the $F_{SPR26\%}$ proxy, while still somewhat low for species with life history parameters similar to red snapper, was more realistic than the 20.4% SPR associated with F_{MAX} . Furthermore, the $F_{SPR26\%}$ proxy is consistent with the current fishery management plan (FMP) and rebuilding plan for red snapper.

Although the red snapper stock continues to recover, spawning stock biomass is estimated to remain below both the minimum stock size threshold (MSST) and the spawning stock size associated with maximum sustainable yield ($SSB_{MSY\ proxy}$) using either proxy described above. 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_{MSY} proxies. Therefore, the SSC estimated the stock is not currently experiencing overfishing.

Based on an evaluation to the Tier 1 P^* spreadsheet used for the ABC control rule, the SSC determined that the P^* (probability of overfishing) should equal 0.427. This P^* is applied to a probability density function (PDF) to determine an ABC that takes into account scientific uncertainty in the setting of the overfishing limit (OFL). In order to capture more of the scientific uncertainty, the SSC decided to use a weighted average of PDFs constructed for the base model (50% weighting), a high M model that assumed a higher natural mortality rate for age-0 and age-1 red snapper (25% weighting), and a lower M model that assumed a lower natural mortality rate for age-0 and age-1 red snapper (25% weighting). These model runs were selected because they bracket the range of plausible results obtained from the base run and 15 alternative state model runs. Based on the results of the $P^* = 0.427$ applied to the weighted average PDF, the SSC set the following ABCs: 13.5 mp ww in 2013; 11.9 mp in 2014; 10.6 mp in 2015. A red snapper update assessment scheduled for 2014 is expected to re-evaluate the ABC for 2015 and beyond.

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 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 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 SEAMAP, and state trawl surveys. Data from the Estuarine Living Marine Resources 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 (2004a). In general, both eggs and larval

stages are planktonic. Larvae feed on zooplankton and phytoplankton. Exceptions to these generalizations include the gray triggerfish that lay their eggs in depressions in the sandy bottom, and gray snapper whose larvae are found around submerged aquatic vegetation (SAV). Juvenile and adult reef fish are typically demersal, and are usually associated with bottom topographies on the continental shelf (<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 FMP for Corals and Coral Reefs (GMFMC and SAFMC 1982).

Table 3.3.1. 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 2004a) and consolidated in this document.

Status of Reef Fish Stocks

The Reef Fish FMP currently encompasses 31 species (Table 3.3.2). 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 3.3.2.

Table 3.3.2. 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 2004a) 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.

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 3.3.1).

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.³

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

³ Source: http://sero.nmfs.noaa.gov/sf/deepwater_horizon/OilCharacteristics.pdf

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.

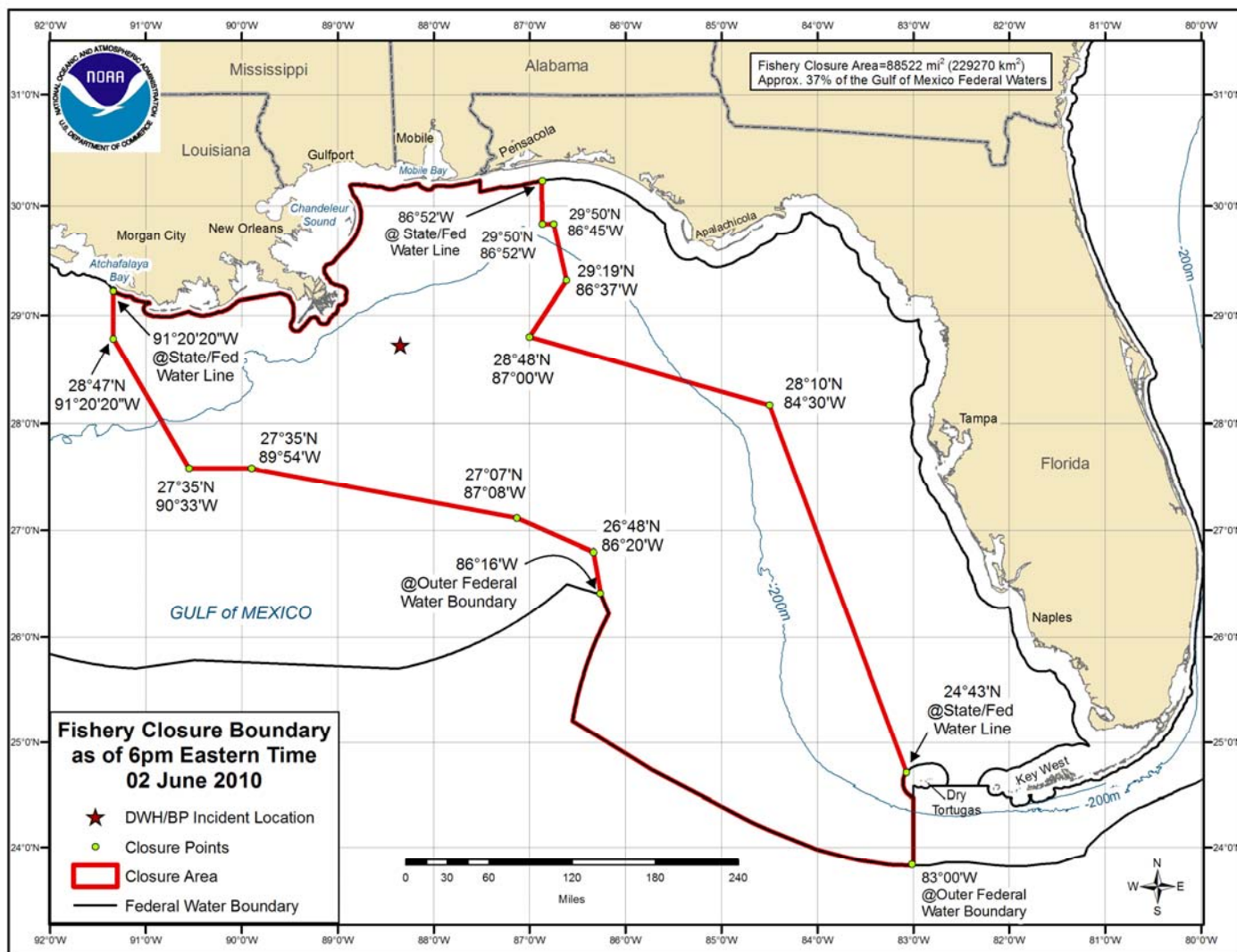


Figure 3.3.1. Fishery closure at the height of the Deepwater Horizon MC252 oil spill.

3.4 Description of the Economic Environment

3.4.1 Commercial Sector

A description of the commercial sector is provided in GMFMC (2013) and is incorporated herein by reference. Because this proposed amendment would only change management of the recreational sector, an update of the information on the commercial sector provided in GMFMC (2013) is not provided.

3.4.2 Recreational Sector

Angler Effort

Recreational effort derived from the Marine Recreational Information Program (MRIP) database can be characterized in terms of the number of trips as follows:

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

Other measures of effort are possible, such as directed trips (the number of individual angler trips that either targeted or caught a particular species), among other measures. Estimates of the number of red snapper target trips and catch trips for the shore, charter, and private/rental boat modes in the Gulf for 2011-2014 are provided in Table 3.4.2.1 and Table 3.4.2.2. Estimates of red snapper target effort for additional years, and other measures of directed effort, are available at <http://www.st.nmfs.noaa.gov/recreational-fisheries/access-data/run-a-data-query/queries/index>.

Table 3.4.2.1. Number of red snapper recreational target trips, by state¹ and mode, 2011-2014.

	Alabama	West Florida	Louisiana	Mississippi	Total
Charter Mode					
2011	19,010	29,642	1,424	0	50,076
2012	16,609	24,653	7,204	74	48,539
2013	23,638	32,689	7,191	38	63,556
2014	9,050	7,358	²	0	nc
Average	17,077	23,586	5,273 ³	28	45,964
Private/Rental Mode					
2011	116,886	113,021	19,900	16,790	266,597
2012	72,030	136,594	43,547	13,515	265,687
2013	222,245	461,349	24,691	21,586	729,871
2014	56,918	165,498	²	7,555	nc
Average	117,020	219,116	29,379 ³	14,862	380,377
All Modes					
2011	135,896	142,663	21,324	16,790	316,673
2012	88,640	161,247	50,751	13,589	314,227
2013	245,883	494,038	31,882	21,624	793,427
2014	65,968	172,856	²	7,555	nc
Average	134,097	242,702	34,652 ³	14,890	426,341

¹Texas information unavailable.

²The MRIP survey was not conducted in Louisiana in 2014.

³Average for 2011-2013.

nc – not computed because of the absence of Louisiana data.

Source: MRIP database, NMFS, SERO.

Note: These effort estimates have not been re-calibrated. Re-calibrated effort data are currently unavailable.

Note: There were no target trips recorded from the shore mode.

Table 3.4.2.2. Number of red snapper recreational catch trips, by state¹ and mode, 2011-2014.

	Alabama	West Florida	Louisiana	Mississippi	Total
Charter Mode					
2011	43,550	101,500	3,066	221	148,336
2012	25,252	105,385	10,501	74	141,211
2013	52,331	107,466	12,321	38	172,157
2014	36,340	66,559	²	0	nc
Average	39,368	95,228	8,629 ³	83	143,308
Private/Rental Mode					
2011	130,500	203,567	31,957	6,169	372,193
2012	83,783	282,332	51,377	13,515	431,007
2013	227,889	537,469	55,679	29,250	850,287
2014	110,593	233,265	²	10,254	nc
Average	138,191	314,158	46,338 ³	14,797	513,484
All Modes					
2011	174,050	305,067	35,023	6,390	520,530
2012	109,035	387,717	61,878	13,589	572,219
2013	280,221	644,935	68,000	29,288	1,022,444
2014	146,933	299,824	²	10,254	nc
Average	177,559	409,386	54,967 ³	14,880	656,792

¹Texas information unavailable.

²The MRIP survey was not conducted in Louisiana in 2014.

³Average for 2011-2013.

nc – not computed because of the absence of Louisiana data.

Source: MRIP database, NMFS, SERO.

Note: These effort estimates have not been re-calibrated. Re-calibrated effort data are currently unavailable.

Note: There were no catch trips recorded from the shore mode.

Similar analysis of recreational effort is not possible for the headboat mode because headboat data are not collected at the angler level. Headboat angler effort is calculated as angler days, which are a standardized count of trips that result from the combination of partial-day, full-day, and multiple-day trips. Unlike the situation for charter vessels, the estimates of headboat angler days include just trips on federally permitted vessels. The stationary “fishing for demersal (bottom-dwelling) species” nature of headboat fishing, as opposed to trolling, suggests that most, if not all, headboat trips and, hence, angler days, are demersal or reef fish trips by intent. The distribution of headboat effort (angler days) by geographic area is presented in Table 3.4.2.3. For purposes of data collection, the headboat data collection program divides the Gulf into several areas.

Table 3.4.2.3. Gulf headboat angler days, by state, 2011–2014.

	Angler Days				
	West Florida	Florida/Alabama ¹	Mississippi/Louisiana ²	Texas	Total
2011	79,722	77,303	3,657	47,284	207,966
2012	84,205	77,770	3,680	51,776	217,431
2013	94,752	80,048	3,406	55,749	233,955
2014	102,841	88,524	3,257	51,231	245,853
Average	90,380	80,911	3,500	51,510	226,301

Source: (SRHS).

West Florida = Florida from the Dry Tortugas through the Florida Middle Grounds, Florida/Alabama = northwest Florida and Alabama.

¹For 2013, SRHS data was reported separately for NW Florida and Alabama, but has been combined here for consistency with previous years.

²Mississippi and Louisiana are combined for confidentiality purposes.

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 fee is determined. On a charter boat trip, the fee charged is for the entire vessel, regardless of how many passengers are carried, whereas the fee charged for a headboat trip is paid per individual angler.

A federal for-hire vessel permit has been required for both types of vessels for reef fish since 1996 and is a limited access permit. On May 6, 2015, there were 1,320 valid (non-expired) or renewable Gulf Charter/Headboat Reef Fish permits, including historical captain 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 for-hire permit application collects information on the primary method of operation, the permit itself does not identify the permitted vessel as either a headboat or a charter vessel and vessels may operate in both capacities. However, only federally permitted headboats are required to submit harvest and effort information to the NMFS Southeast Region Headboat Survey (SRHS). Participation in the SRHS is based on determination by the Southeast Fishery Science Center (SEFSC) that the vessel primarily operates as a headboat. As of May 6, 2015, 69 Gulf headboats were registered in the SRHS (K. Fitzpatrick, NMFS SEFSC, pers. comm.).

Information on Gulf charter boat and headboat operating characteristics is included in Savolainen et al. (2012) and is incorporated herein by reference.

There are no specific federal permitting requirements for recreational anglers to fish for or harvest reef fish. 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. For the for-hire sector, customers are authorized to fish under the charter or headboat vessel license and are not required to hold

their own fishing licenses. 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 action.

Economic Value

Economic value can be measured in the form of consumer surplus (CS) per additional red snapper kept on a trip for anglers (the amount of money that an angler would be willing to pay for a fish in excess of the cost to harvest the fish). The estimated value of the CS per fish for a second red snapper kept on a trip is approximately \$79.72 (Carter and Liese 2012; values updated to 2013 dollars⁴).

With regards to for-hire businesses, economic value can be measured by producer surplus (PS) per passenger trip (the amount of money that a vessel owner earns in excess of the cost of providing the trip). Estimates of the PS per for-hire passenger trip are not available. Instead, net operating revenue (NOR), which is the return used to pay all labor wages, returns to capital, and owner profits, is used as a proxy for PS. The estimated NOR value is \$151 (2013 dollars) per charter angler trip (Liese and Carter 2012). The estimated NOR value per headboat angler trip is \$52 (2013 dollars) (C. Liese, NMFS SEFSC, pers. comm.). Estimates of NOR per red snapper target trip 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.

Estimates of the business activity (economic impacts) associated with recreational angling for red snapper were derived using average impact coefficients for recreational angling for all species, as derived from an add-on survey to the Marine Recreational Fisheries Statistics Survey (MRFSS) to collect economic expenditure information, as described and utilized in NMFS (2011b). Estimates of the average expenditures by recreational anglers are also provided in NMFS (2011b) and are incorporated herein by reference.

Recreational fishing generates business activity (economic impacts). Business activity for the recreational sector is characterized in the form of full-time equivalent jobs, output (sales) impacts (gross business sales), and value-added impacts (difference between the value of goods and the cost of materials or supplies). Estimates of the average red snapper target effort (2011-2014) and associated business activity (2013 dollars) are provided in Table 3.4.2.5. West Florida experienced the highest level of business activity associated with recreational red snapper fishing for all the Gulf States⁵, followed by Alabama.

⁴ Converted to 2013 dollars using the 2013 annual Consumer Price Index (CPI) for all US urban consumers provided by the Bureau of Labor and Statistics (BLS).

⁵ Excludes Texas for which target effort data is unavailable.

The estimates provided in Table 3.4.2.5 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.

Estimates of the business activity associated with headboat effort are not available. Headboat vessels are not covered in the 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.

Table 3.4.2.5. Summary of red snapper target trips (2011-2014 average) and associated business activity (2013 dollars). The output, value added, and jobs impact estimates are not additive across states.

	Alabama	West Florida	Louisiana	Mississippi	Texas
Private/Rental Mode					
Target Trips	117,020	219,116	29,379	14,862	*
Output Impact	\$6,324,091	\$11,848,997	\$2,220,463	\$523,061	*
Value Added Impact	\$3,422,393	\$6,709,550	\$1,067,020	\$266,046	*
Jobs	68	102	17	5	*
Charter Mode					
Target Trips	17,077	23,586	5,273	28	*
Output Impact	\$10,913,013	\$17,296,265	\$2,550,132	\$11,340	*
Value Added Impact	\$7,468,284	\$11,563,482	\$1,753,524	\$7,988	*
Jobs	106	152	20	0	*
All Modes					
Target Trips	134,097	242,702	34,652	14,890	*
Output Impact	\$17,237,104	\$29,145,261	\$4,770,595	\$534,401	*
Value Added Impact	\$10,890,677	\$18,273,032	\$2,820,543	\$274,034	*
Jobs	174	254	37	5	*

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

Note: There were no target trips recorded from the shore mode.

Source: effort data from the MRIP, economic impact results calculated by NMFS SERO using the model developed for NMFS (2011b).

3.5 Description of the Social Environment

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 amendment 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. The proportion of total recreational landings by state for the years 1986 through 2012 is provided in Table 2.3.1. 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 red snapper. Data reflecting commercial landings of red snapper may or may not reflect areas of importance for recreational fishing of red snapper. It cannot be assumed that the proportion of commercial red snapper 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 red snapper 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 3.4.1. 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.

Comparing the communities of recreational importance (Table 3.5.1) 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 plan amendment are likely to be greatest in these communities.

Table 3.5.1. 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.

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 2010) 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 January 2011 Regulatory Amendment (GMFMC 2011a) includes an update on the impacts of the Deepwater Horizon MC252 oil spill. The Gulf of Mexico 2011 Red Snapper IFQ Annual Report (NMFS 2012a) provides a detailed discussion of the commercial red snapper IFQ program.

3.5.1 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 red snapper 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 3.5.1). 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 3.5.1.1. 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.

Table 3.5.1 provides a summary of 20 communities considered substantially engaged in recreational fishing, generally. When compared with the referenced commercial fishing analysis, the following five communities (and respective county) are considered most likely to be affected: Destin (Okaloosa), Panama City (Bay), Pensacola (Escambia), and Apalachicola (Franklin), Florida and Galveston (Galveston), Texas. In comparing these communities with the preceding analysis identifying counties with potential EJ concerns, Apalachicola is the only community located within a county identified as having potential for EJ concerns. Apalachicola, located in Franklin County, exceeds the poverty threshold by 8% and would be the community most likely to experience unanticipated negative impacts.

The actions in this amendment are designed to implement a program for the regional management of recreational red snapper in which states or regions will be authorized to adapt certain management measures to regional conditions. It is assumed that the flexibility provided to adopt management measures most appropriate to a given region would result in optimal fishing opportunities for local anglers which in turn, would result in benefits to local communities. As will be addressed in the social effects analysis for each action, direct impacts are not expected to accrue to the social environment from most actions of this amendment, which establish the parameters of the program. However, indirect effects (positive or negative) may result due to 1) the specific regulations implemented in each region, 2) how any new regulations differ from existing regulations, and 3) the success or failure of cooperation under the new management regime. Disproportionate impacts to EJ populations are not expected to result from any of the actions in this amendment. Nevertheless, because the regulations to be implemented in each region remain unknown, the lack of impacts on EJ populations cannot be assumed.

3.6 Description of the Administrative Environment

3.6.1 Federal Fishery Management

Federal fishery management is conducted under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) (16 U.S.C. 1801 *et seq.*), originally enacted in 1976 as the Fishery Conservation and Management Act. The Magnuson-Stevens Act claims sovereign rights and exclusive fishery management authority over most fishery resources within the exclusive economic zone (EEZ), an area extending 200 nautical miles from the seaward boundary of each of the coastal states, and authority over U.S. anadromous species and continental shelf resources that occur beyond the EEZ.

Responsibility for federal fishery management 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 B. 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 also involved in the fishery management process through participation on advisory panels and through Council meetings that, with few exceptions for discussing personnel matters, national security, or litigation briefings, are open to the public. The regulatory process is also in accordance with the Administrative Procedures Act, in the form of “notice and comment” rulemaking, which provides extensive opportunity for public scrutiny and comment, and requires consideration of and response to those comments.

Regulations contained within FMPs are enforced through actions of the National Oceanic and Atmospheric Administration (NOAA) Office of Law Enforcement, the United States Coast Guard, and various state authorities. To better coordinate enforcement activities, federal and state enforcement agencies have developed cooperative agreements to enforce the Magnuson-Stevens Act. These activities are being coordinated by the Council’s Law Enforcement Advisory Panel and the Gulf States Marine Fisheries Commission’s Law Enforcement Committee, which have developed a 5-year “Gulf of Mexico Cooperative Law Enforcement Strategic Plan – 2008-2012.”

The red snapper stock in the Gulf is classified as overfished, but no longer undergoing overfishing. A rebuilding plan for red snapper was first implemented under Amendment 1 (GMFMC 1989), and has undergone several revisions. The current rebuilding plan was established in Reef Fish Amendment 27/Shrimp Amendment 14 (GMFMC 2007), and calls for rebuilding the stock to a level capable of supporting maximum sustainable yield on a continuing basis by 2032. Periodic adjustments to the ACL and other management measures needed to affect rebuilding are implemented through amendments and framework actions.

3.6.2 State Fishery Management

The purpose of state representation at the Council level is to ensure state participation in federal fishery management decision-making and to promote the development of compatible regulations in state and federal waters. The state governments of Texas, Louisiana, Mississippi, Alabama, and Florida have the authority to manage their respective state fisheries. Each of the five Gulf

States exercise 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 2004b).

CHAPTER 4. ENVIRONMENTAL CONSEQUENCES

4.1 Action 1 – Regional Management

4.1.1 Direct and Indirect Effects on the Physical Environment

4.1.2 Direct and Indirect Effects on the Biological/Ecological Environment

4.1.3 Direct and Indirect Effects on the Economic Environment

4.1.4 Direct and Indirect Effects on the Social Environment

4.1.5 Direct and Indirect Effects on the Administrative Environment

4.2 Action 2 –Regional Management and Sector Separation

4.2.1 Direct and Indirect Effects on the Physical Environment

4.2.2 Direct and Indirect Effects on the Biological/Ecological Environment

4.2.3 Direct and Indirect Effects on the Economic Environment

4.2.4 Direct and Indirect Effects on the Social Environment

4.2.5 Direct and Indirect Effects on the Administrative Environment

4.3 Action 3 – Establish Regions for Management

4.3.1 Direct and Indirect Effects on the Physical Environment

4.3.2 Direct and Indirect Effects on the Biological/Ecological Environment

4.3.3 Direct and Indirect Effects on the Economic Environment

4.3.4 Direct and Indirect Effects on the Social Environment

4.3.5 Direct and Indirect Effects on the Administrative Environment

4.4 Action 4 – Establish Minimum and/or Maximum Size Limits

4.4.1 Direct and Indirect Effects on the Physical Environment

4.4.2 Direct and Indirect Effects on the Biological/Ecological Environment

4.4.3 Direct and Indirect Effects on the Economic Environment

4.4.4 Direct and Indirect Effects on the Social Environment

4.4.5 Direct and Indirect Effects on the Administrative Environment

4.5 Action 5 – Boundaries in the Exclusive Economic Zone

4.5.1 Direct and Indirect Effects on the Physical Environment

4.5.2 Direct and Indirect Effects on the Biological/Ecological Environment

4.5.3 Direct and Indirect Effects on the Economic Environment

4.5.4 Direct and Indirect Effects on the Social Environment

4.5.5 Direct and Indirect Effects on the Administrative Environment

4.6 Action 6 – Apportioning the Recreational Red Snapper Quota among Regions

4.6.1 Direct and Indirect Effects on the Physical Environment

4.6.2 Direct and Indirect Effects on the Biological/Ecological Environment

4.6.3 Direct and Indirect Effects on the Economic Environment

4.6.4 Direct and Indirect Effects on the Social Environment

4.6.5 Direct and Indirect Effects on the Administrative Environment

4.7 Action 7 – Post-season Accountability Measures (AMs)

4.7.1 Direct and Indirect Effects on the Physical Environment

4.7.2 Direct and Indirect Effects on the Biological/Ecological Environment

4.7.3 Direct and Indirect Effects on the Economic Environment

4.7.4 Direct and Indirect Effects on the Social Environment

4.7.5 Direct and Indirect Effects on the Administrative Environment

4.8 Cumulative Effects Analysis (CEA)

CHAPTER 5. REGULATORY IMPACT REVIEW

[This review is completed after selection of all preferred alternatives.]

CHAPTER 6. REGULATORY FLEXIBILITY ACT ANALYSIS

[This analysis is completed after selection of all preferred alternatives.]

CHAPTER 7. LIST OF PREPARERS

PREPARERS

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Ava Lasseter	Anthropologist	Co-Team Lead – Amendment development, introduction, social analyses	GMFMC
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Carrie Simmons	Fishery biologist	Biological analyses	GMFMC
Stephen Holiman	Economist	Economic analyses, Regulatory Impact Review, Regulatory Flexibility Act analysis	SERO
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Andy Strelcheck	Fishery biologist	Scientific analyses	SERO

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Name	Expertise	Responsibility	Agency
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Mara Levy	Attorney	Legal review	NOAA GC
Jason Brand	Law enforcement	Law enforcement review	USCG

GMFMC = Gulf of Mexico Fishery Management Council; NOAA GC = National Oceanic and Atmospheric Administration General Counsel; SEFSC = Southeast Fisheries Science Center; SERO = Southeast Regional Office of the National Marine Fisheries Service; USCG = United States Coast Guard

CHAPTER 8. LIST OF AGENCIES, ORGANIZATIONS AND PERSONS TO WHOM A COPY OF THE EIS WAS SENT

National Marine Fisheries Service

- Southeast Fisheries Science Center
- Southeast Regional Office
- Office for Law Enforcement
- Endangered Species Division
- Domestic Fisheries Division

NOAA General Counsel

Environmental Protection Agency (Region 4 and 6)

United States Coast Guard

United States Fish and Wildlife Services

Department of Interior, Office of Environmental Policy and Compliance

Department of State, Office of Marine Conservation,

Marine Mammal Commission

Texas Parks and Wildlife Department

Alabama Department of Conservation and Natural Resources/Marine Resources Division

Louisiana Department of Wildlife and Fisheries

Mississippi Department of Marine Resources

Florida Fish and Wildlife Conservation Commission

CHAPTER 9. REFERENCES

- 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.
- Berkes, Fikret. 2009. Evolution of co-management: Role of knowledge generation, bridging organizations and social learning. *Journal of Environmental Management* 90:1692-1702.
- Burns, K. M., and J. T. Froeschke. 2012. Survival of red grouper (*Epinephalus morio*) and red snapper (*Lutjanus campechanus*) caught on J-hooks and circle hooks in the Florida recreational and recreational-for-hire fisheries. *Bull. Mar. Sci.* 88(3):633-646.
- Burns, K. M., N. F. Parnell, R. R. Wilson. 2004. Partitioning release mortality in the undersized red snapper bycatch: Comparison of depth vs. hooking effects. Final Report MARFIN Grant No. NA97FF0349 36 pp.
- Burns, K. M., C. C. Koenig, and F. C. Coleman. 2002. Evaluation of multiple factors involved in release mortality of undersized red grouper, gag, red snapper, and vermilion snapper. Mote Marine Laboratory Technical Report No. 814. (MARFIN grant #NA87FF0421). 53 pp.
- Campbell, M.D., W.B. Driggers, and B. Sauls. 2012. Release mortality in the red snapper fishery: a synopsis of three decades of research. SEDAR31-DW22. SEDAR, North Charleston, SC. 25 pp.
- Canter, L. 2012. Guidance on cumulative effects analysis in environmental assessments and environmental impact statements. Prepared for National Oceanic & Atmospheric Administration National Marine Fisheries Service, Northeast Regional Office, Gloucester, Massachusetts.
- 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>
- 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.
- Census Bureau. 2010. United States 2010 Census. <http://www.census.gov/2010census/>.

CEQ. 1997 Considering cumulative effects under the National Environmental Policy Act. Council on Environmental Policy, Executive Office of the President. 64 pp. + appendices. Available at <http://ceq.eh.doe.gov/nepa/ccenepa/ccenepa.htm>.

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.

Collins, L.A., G.R. Fitzhugh, L. Mourand, L.A. Lombardi, W.T. Walling Jr., W.A. Fable, M.R. Burnett, R.J. Allman. 2001. Preliminary results from a continuing study of spawning and fecundity in the red snapper (Lutjanidae: *Lutjanus campechanus*) from the Gulf of Mexico, 1998-1999. Proceedings of the 52nd Gulf and Caribbean Fisheries Institute. 52: 34-47.

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

Gannon, D. P., E. J. Berens McCabe, S. A. Camilleri, J. G., Gannon, M. K. Brueggen, A. A. Barleycorn, V. I. Palubok, G. J. Kirkpatrick, and R. S. Wells. 2009. Effects of *Karenia brevis* harmful algal blooms on nearshore fish communities in southwest Florida. Mar. Ecol. Prog. Ser. 378:171–186.

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. 1989. Amendment 1 to the reef fish fishery management plan including environmental assessment, regulatory impact review, and regulatory flexibility analysis. Gulf of Mexico Fishery Management Council. Tampa, Florida.
<http://www.gulfcouncil.org/Beta/GMFMCWeb/downloads/RF%20Amend-01%20Final%201989-08-rescan.pdf>

GMFMC. 1999. Regulatory amendment to the reef fish fishery management plan to set 1999 gag/black grouper management measures (revised), includes environmental assessment, regulatory impact review, and initial regulatory flexibility analysis. Gulf of Mexico Fishery Management Council, Tampa, Florida.
<http://www.gulfcouncil.org/Beta/GMFMCWeb/downloads/RF%20RegAmend%20-%201999-08.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.

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

GMFMC. 2002. Amendment number 10 to the fishery management plan for the shrimp fishery of the Gulf of Mexico, U.S. Waters with environmental assessment, 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/SHRIMP%20Amend-10%20Final%202002-07.pdf>

GMFMC. 2004a. 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. 2004b. 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. 2004c. Final amendment 23 to the reef fish fishery management plan to set vermilion snapper sustainable fisheries act targets and thresholds and to establish a plan to end overfishing and rebuild the stock, including a final supplemental environmental impact statement and regulatory impact review. Gulf of Mexico Fishery Management Council. Tampa, Florida.

<http://www.gulfcouncil.org/Beta/GMFMCWeb/downloads/VS%2023%20Oct%20Final%2010-21-04%20with%20Appendix%20E.pdf>

GMFMC. 2005. Final amendment 18A to the fishery management plan for the reef fish resources of the Gulf of Mexico, including environmental assessment, regulatory impact review, and initial regulatory flexibility analyses. Gulf of Mexico Fishery Management Council. Tampa, Florida.

http://www.gulfcouncil.org/Beta/GMFMCWeb/downloads/Amendment_18A_Final.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 reef fish 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. Gulf of Mexico Fishery Management Council, 2203 North Lois Avenue, Suite 1100, Tampa, FL. 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-%20201-11.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. Final amendment 37 to the reef fish fishery management plan for the reef fish resources of the Gulf of Mexico – Modifications to the gray triggerfish rebuilding plan including adjustments to the annual catch limits and annual catch targets for the commercial and recreational sectors. Gulf of Mexico Fishery Management Council. Tampa, Florida.

[http://www.gulfcouncil.org/docs/amendments/Final_Reef_Fish_Amend_37_Gray_Triggerfish_12_06_12\[1\].pdf](http://www.gulfcouncil.org/docs/amendments/Final_Reef_Fish_Amend_37_Gray_Triggerfish_12_06_12[1].pdf)

GMFMC. 2012c. Final amendment 38 to the reef fish fishery management plan for the reef fish resources of the Gulf of Mexico – modifications to the shallow-water grouper accountability 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/docs/amendments/Final%20Amendment%2038%2009-12-2012.pdf>

GMFMC. 2012d. Final regulatory amendment to the fishery management plan for the reef fish resources of the Gulf of Mexico, revise fall recreational fixed closed season and set 2012 and 2013 quotas for red snapper. Gulf of Mexico Fishery Management Council. Tampa, Florida.

<http://www.gulfcouncil.org/Beta/GMFMCWeb/downloads/Final%20Red%20Snapper%20Fall%20Season%20and%20Quota%20RegAmend%20-%2003-20-2012.pdf>

GMFMC. 2013a. Framework action to set the 2013 red snapper commercial and recreational quotas and modify the recreational bag limit, including environmental assessment, regulatory impact review, and regulatory flexibility act analysis. Gulf of Mexico Fishery Management Council. Tampa, Florida.

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

GMFMC. 2013b. Red snapper 2013 quota increase and supplemental recreational season, including environmental assessment, regulatory impact review, and regulatory flexibility act analysis. Framework action to the fishery management plan for the reef fish resources of the Gulf of Mexico. Gulf of Mexico Fishery Management Council. Tampa, Florida.

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

GMFMC. 2014. Final amendment 40 to the reef fish fishery management plan for the reef fish resources of the Gulf of Mexico – recreational red snapper sector separation. Gulf of Mexico Fishery Management Council, Tampa, Florida. 274 p.

<http://www.gulfcouncil.org/docs/amendments/RF%2040%20-%20Final%2012-17-2014.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#

Goodyear, C. P. 1995. Red snapper in U.S. waters of the Gulf of Mexico. NOAA, NMFS, SEFSC, 75 Virginia Beach Drive, Miami, Florida 33149. Contribution: MIA 95/96-05. 171 pp.

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.

Hanisko, David S., Joanne Lyczkowski-Shultz, and G. Walter Ingram. 2007. Indices of larval red snapper occurrence and abundance for use in stock assessment. American Fisheries Society Symposium 60:285-300.

Harrison, P. 1983. Seabirds: an identification guide. Houghton Mifflin Company, Boston, MA. Field Notes 48: 976-978.

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. AFS, Symp 60, Bethesda, MD.

IPCC. 2007. Climate Change 2007: the physical science basis. Contribution of working group I to the fourth assessment report of the Intergovernmental Panel on Climate Change. S. Solomon, D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller, editors. Cambridge University Press, Cambridge, United Kingdom and New York, New York, USA.

Jentoft, Svein, Bonnie J. McCay and Douglas C. Wilson. 1998. Social theory and fisheries co-management 22(4-5):423-436.

- Johnson, D.R., H.M. Perry, J. Lyczkowski-Shultz, and D. Hanisko. 2009. Red snapper larval transport in the northern Gulf of Mexico. *Transactions of the American Fisheries Society* 138:458-470.
- Kennedy, V., Twilley, R. Klypas, J. Cowan, J. and Hare, S. 2002. Coastal and marine ecosystems & global climate change: Potential effects on U.S. resources. Prepared for the Pew Center on Global Climate Change.
- Landsberg, J.H., L.J. Flewelling, J. Naar. 2009. *Karenia brevis* red tides, brevetoxins in the food web, and impacts on natural resources: Decadal advancements. *Harmful Algae* 8:598–607.
- Linton, B. 2012a. Population projections for Gulf of Mexico red snapper with preliminary 2012 landings estimates. National Marine Fisheries Service, Southeast Fisheries Science Center, Miami, FL.
- Linton, B. 2012b. Shrimp fishery bycatch estimates for Gulf of Mexico red snapper, 1972-2011. SEDAR31-DW30. SEDAR, North Charleston, SC. 11 pp.
- 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. 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. 2010. 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. 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. 2011b. Fisheries Economics of the United States, 2009. U.S. Department of Commerce, NOAA Technical Memorandum. National Marine Fisheries Service-F/SPO-118. Available at:

http://www.st.nmfs.noaa.gov/st5/publication/fisheries_economics_2009.html

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. 2012b. Guidance on Cumulative Effects Analysis.

NMFS. 2013. Updated 2013 Gulf of Mexico red snapper recreational season length estimates. National Marine Fisheries Service, Southeast Regional Office, St. Petersburg, Florida. SERO-LAPP-2013-02 Addendum. 12 p.

http://sero.nmfs.noaa.gov/sustainable_fisheries/gulf_fisheries/red_snapper/documents/pdfs/2013_red_snapper_emergency_regs.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.
- Patterson, W. F. III, J. C. Watterson, R. L. Shipp, and J. H. Cowan, Jr. 2001. Movement of tagged red snapper in the northern Gulf of Mexico. Transactions of the American Fisheries Society 130: 533-545.
- 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.
- Porch, C. E. 2005. Projected effects of changes in minimum size regulations on the future status of the red snapper (*Lutjanus campechanus*) fishery in the U. S. Gulf of Mexico. NOAA, NMFS, SEFSC, 75 Virginia Beach Drive, Miami, Florida 33149. Contribution: SFD-2005-009. 7 pp.
- Porch, C.E., G.R. Fitzhugh, and B.C. Linton. 2013. Modeling the dependence of batch fecundity and spawning frequency on size and age for use in stock assessment of red snapper in U.S. Gulf of Mexico waters-SEDAR31-AW03. Southeast Fisheries Science Center, Miami, Florida 33149.
- RFSAP. 1999. September 1999 Report of the Reef Fish Stock Assessment Panel. Gulf of Mexico Fishery Management Council. Tampa, FL.
- 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. 2012. SEDAR 31 Section II: Data workshop report, Gulf of Mexico red snapper. SEDAR, North Charleston, SC.

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/>.

SERO. 2006. Red snapper yield-per-recruit analyses. NOAA, NMFS, SERO, 263 13th Ave. South, St. Petersburg, Florida 33701. 13 pp.

SERO. 2012a. 2011 Gulf of Mexico grouper-tilefish individual fishing quota annual report. SERO-LAPP-2012-09. Southeast Regional Office. St. Petersburg, Florida. 49 p.

SERO. 2012b. Southeast Regional Office National Marine Fisheries Service. 2013 Recreational Red Snapper Quota Closure Analysis. Southeast Regional Office, St. Petersburg, FL.

SERO. 2012c. Southeast Regional Office National Marine Fisheries Service. Estimated reduction in Gulf of Mexico recreational red snapper harvest associated with various bag limits. Southeast Regional Office, St. Petersburg, Florida.

SERO. 2013a. Establishing Recreational Closure Authority Specific to Federal Waters off Individual States for the Red Snapper Component of the Gulf of Mexico Reef Fish Fishery. Emergency Action to the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico. Southeast Regional Office, St. Petersburg, FL.

SERO. 2013b. Red snapper individual fishing quota program 5-year review. Southeast Regional Office. St. Petersburg, Florida. 94 p.

SERO-LAPP-2013-02. Southeast Regional Office National Marine Fisheries Service. 2013 Gulf-wide and State-specific Projected 2013 Red Snapper Federal Season Closure Dates. Southeast Regional Office, St. Petersburg, FL.

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.

Sutton, S. G., R. B. Ditton, J. R. Stoll, and J. W. Milon. 1999. A cross-sectional study and longitudinal perspective on the social and economic characteristics of the charter and party boat fishing industry of Alabama, Mississippi, Louisiana, and Texas. Report by the Human Dimensions of Recreational Fisheries Research Laboratory, Texas A&M University, MARFIN program grant number NA77FF0551.

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.

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.

Walker, B. M., R. F. Zales II, and B. W. Rockstall. 2006. Charter fleet in peril: losses to the Gulf of Mexico charter fleet from hurricane storms during 2005. National Association of Charterboat Operators. 208 pp.

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. ALTERNATIVES CONSIDERED BUT REJECTED

REMOVED AT APRIL 2013 COUNCIL MEETING:

Two alternatives from Action 2 – Establish Regions for Management

Alternative 3: Establish an east (Florida, Alabama) and west (Mississippi, Louisiana, Texas) region and allow for different management measures for each region.

* ALTERNATIVE 3 (ABOVE) SUBSEQUENTLY REPLACED IN ACTION 2 AT OCTOBER 2013 COUNCIL MEETING.

Alternative 4: Establish three regions representing the west (Texas), north (Louisiana, Mississippi, Alabama), and east (Florida) region and allow for different management measures for each region.

Remove entire Action 7:

Action 7 – In-Season Accountability Measure Establishing Regional Closures in the EEZ

*Note: Both **Alternative 2** and **Alternative 3** could be selected as Preferred Alternatives.

Alternative 1: No action. When the recreational red snapper quota is reached, or is projected to be reached, the National Marine Fisheries Service (NMFS) files a notification with the Office of the Federal Register that prohibits the recreational harvest of red snapper in the economic exclusive zone (EEZ) for the remainder of the fishing year.

Alternative 2: If a region, as defined in Action 2, establishes an approved regional regulations, NMFS has the authority to alter the recreational red snapper season in the EEZ off those states (including a zero-day season) by the amount necessary to compensate for the additional harvest that would occur in state waters as a result of the region's regulations. (Boundaries for the EEZ off each state are in Figure 1.2.1.)

Alternative 3: If a region, as defined in Action 2, does not have an approved regional regulations and establishes regulations inconsistent with federal red snapper regulations, NMFS has the authority to adjust the recreational red snapper season in the EEZ off those states (including a zero day season) by the amount necessary to compensate for the additional harvest that would occur in state waters as a result of the region's inconsistent regulations. (Boundaries for the EEZ off each state are in Figure 1.2.1.)

Discussion:

Under current management, state and federal waters Gulf wide are open during the red snapper season. If the regions, as defined in Action 2, set their own fishing seasons through an approved management plan or inconsistent regulations, some areas of the Gulf could be open while other areas are closed. This action allows the Council to extend boundary lines of state waters into the EEZ, to correspond with the regions. These boundaries would enable NMFS to close federal

waters off of a region when its regional quota has been reached. Or, the boundaries could be used to close a portion of the EEZ off a state or region that establishes inconsistent regulations. This in-season accountability measure would help prevent the annual catch limit from being exceeded. The in-season and post-season (Action 6) accountability measures are not mutually exclusive and could be used together where appropriate. Further information on accountability measures is described in the Generic ACL/AM Amendment in Section 2.8 (GMFMC 2011).

In March 2013, NMFS implemented a temporary emergency rule that gives NMFS the authority to set separate closure dates for the recreational red snapper season in federal waters off individual Gulf states (Figure 1.2.1). This action was requested by the Council to provide a fairer and more equitable distribution of recreational red snapper fishing opportunities among anglers in all the Gulf states for the 2013 season. Although a temporary emergency rule will be in effect for the 2013 season, it will not be used as the analytical baseline. The temporary emergency rule, even if extended, would not be effective for the 2014 red snapper recreational fishing season.

Alternative 1 would continue the current method of determining the closure date for the recreational red snapper season and apply that date to all federal waters of the Gulf. NMFS determines the length of the season based on the quota, average weight of fish, and estimated catch rates. Because NMFS must ensure the entire stock harvest does not exceed the quota, including harvest in state waters, if states establish less restrictive regulations, the federal season must be adjusted to account for the additional expected harvest. For example, when calculating the projected 27-day 2013 season length, NMFS adjusted the mean catch rate to account for the year-round open season in state waters and 4-fish bag limit in Texas (SERO 2012). In addition, Louisiana has proposed an 88-day season with a 3-fish bag limit and Florida has proposed a 44-day season with a 2-fish bag limit in state waters. Based on the estimated catch rate with those regulations in the three state waters, the 2013 federal recreational red snapper season could be reduced to 22 days (SERO 2013). After the 22-day season, the entire EEZ would be closed for the recreational harvest of red snapper.

Both **Alternative 2** and **Alternative 3** would use regions developed in Action 2 to establish boundaries and allow NMFS to set different closure dates for the red snapper recreational season in the EEZ adjacent to each Gulf state. If the Council chooses to delegate management to the regions in Action 1 and Action 4, then there may be a review process to assess if the region's management plan is consistent with the goals of the FMP and red snapper rebuilding plan. A specific process would need to be established for plan approval. **Alternative 2** would apply to regions with approved management plans. If the region has an approved management plan, but the regional quota is determined to be met before the planned season closure, then NMFS could close the harvest in federal waters to prevent overharvest. **Alternative 3** would apply to regions that do not have an approved management plan and establishes regulations inconsistent with the federal regulations. If a region were to set red snapper regulations that were not less restrictive than federal regulations, NMFS would calculate the red snapper recreational season within those boundaries using an adjusted catch rate, to account for a longer season or larger bag limit in state waters. In some cases, this could allow the EEZ off regions with consistent regulations to have more days than if the season for the entire Gulf was adjusted. For example, if the 2013 federal season was reduced off Texas, Louisiana, and Florida to account for inconsistent regulations in

those waters, the federal seasons could be as follows: Texas = 12 days, Louisiana = 8 days, Mississippi = 28 days, Alabama = 28 days, and Florida = 21 days (SERO-LAPP-2013-2). If increased catch from a region with inconsistent regulations exceeds its sub-quota regardless of the adjacent EEZ being closed, then NMFS may need to adjust the federal season in other regions to account for harvest. Conversely, if a state were to implement regulations in state waters that were more restrictive than federal regulations, the federal season in the EEZ off that state could potentially be increased. The Council could choose both **Alternative 2** and **Alternative 3** to address situations where a region or state may or may not have an approved management plan.

If the current regulations are maintained (**Alternative 1**), they could confound the goals of regional management. If regions set varying seasons, it is possible the activities of one or more regions could exceed the recreational sector quota before another region's season occurs. In turn, NMFS would close the remainder of the season to prevent over-fishing. When the total recreational quota is met, all recreational harvest of red snapper would be prohibited regardless of whether one or more regions have reached their respective apportionments. By establishing varying closed areas, the enforcement issues would likely increase. Recreational fishermen would need to abide by the area closures and be mindful of transiting through closed areas. Provisions for transit through closed areas may need to be considered. If the EEZ was closed off a region due to inconsistent regulations (**Alternative 3**), then a clear definition of the state/federal boundary would help recreational fishermen to insure compliance. Currently, this boundary is the 9-nautical mile buffer off of Texas and Florida, and 3-nautical mile buffer off of Alabama, Mississippi, and Louisiana.

REMOVED AT OCTOBER 2014 COUNCIL MEETING:

Options a and b from Alternatives 2, 3, and 4, in Action 6: Post-Season Accountability Measures (AMs) Adjusting for Regional Overages

Option a: Apply the quota adjustment beginning one year after the implementation of the plan.

Option b: Apply the quota adjustment beginning two years after the implementation of the plan.

These options were removed because they are now less restrictive than the overage adjustment recently adopted in the Framework Action to Set Accountability Measures for Red Snapper (GMFMC 2014).

RESTRUCTURING OF ACTIONS AND ALTERNATIVES FOLLOWING OCTOBER 2014 COUNCIL MEETING:

[To be inserted following review of updated actions and alternatives.]

References cited in rejected sections

GMFMC. 2011. 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. 2014.

SERO 2012. Southeast Regional Office National Marine Fisheries Service. 2013 Recreational Red Snapper Quota Closure Analysis. Southeast Regional Office, St. Petersburg, FL.

SERO 2013. Southeast Regional Office National Marine Fisheries Service. 2013 Gulf-wide and State-specific Projected 2013 Red Snapper Federal Season Closure Dates. Southeast Regional Office, St. Petersburg, FL.

APPENDIX B. OTHER APPLICABLE LAW

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

Administrative Procedures Act

All federal rulemaking is governed under the provisions of the Administrative Procedure Act (APA) (5 U.S.C. Subchapter II), which establishes a “notice and comment” procedure to enable public participation in the rulemaking process. Under the APA, 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 APA also establishes a 30-day waiting period from the time a final rule is published until it takes effect.

Coastal Zone Management Act

Section 307(c)(1) of the federal Coastal Zone Management Act of 1972 (CZMA), as amended, requires federal activities that affect any land or water use or natural resource of a state’s coastal zone be conducted in a manner consistent, to the maximum extent practicable, with approved state coastal management programs. The requirements for such a consistency determination are set forth in NMFS 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 (DQA) (Public Law 106-443) effective October 1, 2002, requires the government to set standards for the quality of scientific information and statistics used and disseminated by federal agencies. Information includes any communication or representation of knowledge such as facts or data, in any medium or form, including textual, numerical, cartographic, narrative, or audiovisual forms (includes web dissemination, but not hyperlinks to information that others disseminate; does not include clearly stated opinions).

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

Scientific information and data are key components of fishery management plans (FMPs) and amendments and the use of best available information is the second national standard under the Magnuson-Stevens Act. To be consistent with the 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 a fishery action that “may affect” critical habitat or endangered or threatened species, to consult with the appropriate administrative agency (itself for most marine species, the U.S. Fish and Wildlife Service for all remaining species) to determine the potential impacts of the proposed action. Consultations are concluded informally when proposed actions may affect but are “not likely to adversely affect” endangered or threatened species or designated critical habitat. Formal consultations, including a biological opinion, are required when proposed actions may affect and are “likely to adversely affect” endangered or threatened species or adversely modify designated critical habitat. If jeopardy or adverse modification is found, the consulting agency is required to suggest reasonable and prudent alternatives.

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). 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 memorandum 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.

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 fisheries, and studies of pinniped-fishery interactions.

Under Section 118 of the MMPA, NMFS must publish, at least annually, a List of Fisheries that places all U.S. commercial fisheries into one of three categories based on the level of incidental serious injury and mortality of marine mammals that occurs in each fishery. The categorization of a fishery in the List of Fisheries determines whether participants in that fishery may be required to comply with certain provisions of the MMPA, such as registration, observer coverage, and take reduction plan requirements. The primary gears used in the Gulf of Mexico reef fish fishery are classified in the updated 2012 MMPA List of Fisheries as Category III fishery (74 FR 73912). The conclusions of the most recent List of Fisheries for gear used by the reef fish fishery can be found in Section 3.3.

Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (PRA) (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 PRA requires NMFS to obtain approval from the Office of Management and Budget before requesting most types of fishery information from the public. Action 2 adds reporting and monitoring requirements to the list of post-season accountability measures that can be implemented or changed under the framework procedure and may have PRA consequences.

Executive Orders

E.O. 12630: Takings

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

E.O. 12866: Regulatory Planning and Review

Executive Order 12866: Regulatory Planning and Review, signed in 1993, requires federal agencies to assess the costs and benefits of their proposed regulations, including distributional impacts, and to select alternatives that maximize net benefits to society. To comply with E.O. 12866, NMFS prepares a Regulatory Impact Review (RIR) for all fishery regulatory actions that either implement a new fishery management plan or significantly amend an existing plan (See Chapter 5). 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 a) has an annual effect on the economy of \$100 million or more or adversely affects in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments and communities; b) creates a serious inconsistency or otherwise interferes with an action taken or planned by another agency; c) materially alters the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or d) raises novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this Executive Order.

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

This Executive Order mandates that each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories and possessions. The Executive Order is described in more detail relative to fisheries actions in Section 3.5.1.

E.O. 12962: Recreational Fisheries

This Executive Order requires federal agencies, in cooperation with states and tribes, to improve the quantity, function, sustainable productivity, and distribution of U.S. aquatic resources for increased recreational fishing opportunities through a variety of methods including, but not limited to, developing joint partnerships; promoting the restoration of recreational fishing areas that are limited by water quality and habitat degradation; fostering sound aquatic conservation and restoration endeavors; and evaluating the effects of federally-funded, permitted, or authorized actions on aquatic systems and recreational fisheries, and documenting those effects. Additionally, it establishes a seven-member National Recreational Fisheries Coordination Council (Council) responsible for, among other things, ensuring that social and economic values of healthy aquatic systems that support recreational fisheries are considered by federal agencies in the course of their actions, sharing the latest resource information and management technologies, and reducing duplicative and cost-inefficient programs among federal agencies involved in conserving or managing recreational fisheries. The Council also is responsible for developing, in cooperation with federal agencies, States and Tribes, a Recreational Fishery Resource Conservation Plan - to include a five-year agenda. Finally, the Order requires NMFS and the U.S. Fish and Wildlife Service to develop a joint agency policy for administering the ESA.

E.O. 13132: Federalism

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

E.O. 13158: Marine Protected Areas

This Executive Order 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, habitat areas of particular concern, and gear-restricted areas in the eastern and northwestern Gulf of Mexico.

Essential Fish Habitat

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

References

GMFMC. 2004. 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>

NMFS. 2011. 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>

APPENDIX C. SUMMARIES OF PUBLIC COMMENTS RECEIVED

Scoping workshops were held from January 14 – 22, 2013.
Public hearings were held from August 1 – 15, 2013.

Written comments submitted in response to Reef Fish Amendment 39 can be found here:
<https://docs.google.com/spreadsheets/cc?key=0Atgbk2rxQkqhdFViUTB3VERSX2ZwcXJmckl1QTBXZkE#gid=0>

Scoping workshops were held in the following locations:

January 14, 2013

Baton Rouge, Louisiana
DoubleTree by Hilton
4964 Constitution Ave.
Baton Rouge, LA 70808
(225) 925-1005

January 14, 2013

Texas City, Texas
Holiday Inn Express
2440 Gulf Freeway
Texas City, TX 77591
(409) 986-6700

January 15, 2013

Corpus Christi, Texas
Hilton Garden Inn
6717 S. Padre Island Dr.
Corpus Christi, TX 78412
(361) 991-8200

January 15, 2013

Biloxi, Mississippi
Four Points by Sheraton
940 Beach Blvd.
Biloxi, MS 39530
(228) 546-3100

January 16, 2013

Orange Beach, Alabama
Hilton Garden Inn
23092 Perdido Beach Blvd.
Orange Beach, AL 36561
(251) 974-1600

January 17, 2013

Destin, Florida
Destin Community Center
101 Stahlman Ave.
Destin, FL 32541
(850) 654-5184

January 22, 2013

St. Petersburg, Florida
Hilton St. Petersburg Carillon Park
950 Lake Carillon Dr.
St. Petersburg, FL 33716
(727) 540-0050

Summaries of Scoping Workshops

Baton Rouge, Louisiana January 14, 2013

Council and Staff

Campo Matens

Ryan Rindone

32 members of the public attended.

Joe Macaluso - www.theadvocate.com

The big issue is that the federal government is ignoring the fishermen. How do the federal fisheries managers know which survey, either the Texas Parks and Wildlife or MRIP, is correct? Red snapper can be caught in less than 25 meters of water. Also, how is funding for data collection going to be shared with the states who take on regional management? Allocation should be based on biological criteria. There is a disparity between how recreational and commercial catches figure into the overall red snapper quota. Louisiana's issue with respect to regional management is Florida: Florida has all the people, and Louisiana has all the fish.

George Huye - CCA

Regional management should be done by state, with each state constituting its own region. States should not have to share authority with other states with less resources.

Mike Montalbano - CCA

Regulations are intentionally cumbersome. The Gulf Council should pursue regional management. The Gulf Council should remove as many regulations from the fishery as possible.

Austin Johnson - Private recreational angler

Supports regional management.

Trey Williams - CCA

There are lots of red snapper out there. A 27-day season is not sufficient. Anyone with a boat can catch red snapper. The current system is broken. State-level red snapper is the way to go.

Rawlston Phillips - Private recreational angler

Regional management is the way to go. The money spent by Louisiana on the fishery goes much further than the money spent by the federal government.

Rad Trascher - CCA

Supports regional management. LDWF has a better sense of the red snapper fishery than the federal government and can better manage catch data and conduct stock assessments. Regional management is a step in the right direction.

Larry Hooper - Our Freedom Charters

Will regional management lead to catch shares? Catch share programs haven't worked well anywhere. Supports regional management. Let states handle their own fisheries. Would like to

see the charter for-hire industry recognized as its own business. We pay for everything and get punished for it. Regional management should be conducted at the state level. Red snapper should be assessed using numbers of fish instead of pounds. Scientists need to count all the fish.

Andrew Roberts - CCA

Supports regional management, with Louisiana acting as its own region and governed by LDWF.

Ben Graham - CCA

There are tons of red snapper. Supports regional management of red snapper at the state level. States can do a better job than the federal government. Allocation should be based on biological criteria.

Chris Moran - Marina operator

Supports regional management of red snapper at the state level. Louisiana has the best red snapper fishery and the smallest number of fishermen. There should be shorter seasons as you go from the western Gulf of Mexico to the eastern Gulf of Mexico. Allocation should be based on biological criteria. States could do a better job with sampling funding.

Jim McDowell - Private recreational angler

Supports regional management of red snapper at the state level, with Louisiana managed by LDWF. Allocation should not be based on landings.

David Cresson -CCA Executive Director, LA

The Gulf Council proposed regional management plan is different from the Louisiana proposal. One goal was to show that Louisiana can count fish better than the federal government. In favor of management at the lowest possible level. In favor of regional management as proposed by LDWF.

**Texas City, Texas
January 14, 2013**

Council and Staff

Patrick Riley

Emily Muehlstein

30 members of the public attended.

Bubba Cochran - Charter, commercial, and recreational angler; Good News Charters and Southern Seafood LLC

What is happening with red snapper management right now isn't working and regional management should be pursued. He likes the idea of managing with 3 regions. Bubba does not want the states to manage red snapper without a regional system.

Shane Cantrell - Charter; Fishin' Addiction Charters and Charter Fishing Association
Shane is a young captain and he believes that regional management has a lot of potential as long as states can agree with one another. He would like to see regional management because it may be a way to increase accountability for the recreational sector.

Tom Hilton - Private recreational angler

The Council is working backwards and should identify fishing effort first. He thinks that an offshore boat permit would solve a lot of issues. The charter for-hire industry already has their own permit and the private recreational anglers should, too. An offshore recreational permit would allow for better determination of what the recreational sector is catching without the time lag associated with MRIP. The permit could also solve the problem of National Standard 4 that disallows discrimination between residents of different states by charging different fees for resident and nonresident fishermen. The real solution is an honest stock assessment that gives full credit to the fish on artificial structure in the Gulf. He could really get behind a regional management system if the regions actually had control, but not if this is just a way to further micromanage the fishery.

John Thomas - Private recreational angler

He echoes Tom Hilton's perspective. He sees that there is more snapper out there than ever, and even though he is allergic to fish he wants the system to be fixed.

Jonathan McKay - Private recreational angler

Jonathan suggests that permitting or buying a license that gives a certain number of fish to each angler would be a good idea. A tag system should be considered; this could be considered using regional management or it could be done Gulf-wide. Ultimately, Jonathan is worried about what the overpopulation of snapper is doing to the other fish.

Roger Dickert - Private recreational angler

Roger would not want to trade more days for a smaller bag limit. He supports a tag system because he would like to be given the opportunity to fish when he wants to so he doesn't have to risk unsafe seas. Regional management would be better because the local folks in control would better be able to make management judgments for their region.

David Conrad - Charter; Circle H Charter

David supports the idea of using a tag system. He likes the idea of regional management and would like to see the idea developed a little more.

Bill Platt - Charter boat captain and tournament angler

Bill likes the idea of a regional management system and he really wants accountability in the recreational sector to be improved. 20 years ago there were way more offshore fishermen and there are a lot less now. A tag system is a reasonable idea for Texas because better accountability should let them fish longer.

Scott Hickman - Charter Captain; Circle H Charters

One size fits all management doesn't work in the Gulf of Mexico. He would rather fish red snapper in the fall, and he supports regional management on a state-by-state level so that they

have the authority to come up with their own system under the federal quota and federal accountability measures. Regional management will allow us to get to the accountable fishery quicker than the federal fishery would allow. The status quo system does not work; 27 days is ridiculous, and Texas may as well not have a federal season with the bad weather. Texas Parks and Wildlife could do better for their fishermen and he applauds the Council for trying to give the recreational fishermen a solution.

Tyler Walker - For-hire deckhand and recreational fisherman.

Tyler has seen how the fish population has grown and he supports the idea of moving forward with a regional management program.

Billy Woolsey - Private recreational angler

Billy thinks regional management is a good idea. He wants accountability to be better and believes that a tag system is a reasonable solution to the problem we're facing. We need to do something different.

Johnny Williams - Owner, Williams Party Boats

Jonny believes there needs to be some safeguards because management has potential to become a derby where the state that opens first gets to catch their fish and the rest of the states are punished when the quota is caught. If a state wants to participate in the program, then it should have to agree that it will close its own state waters, not just the federal waters off the state if the individual region's allocation is reached. He thinks that NMFS should relinquish federal control of snapper completely and allow the states to manage it.

Buddy Guindon - Commercial fisherman; Katie's Seafood

Regional management and accountability would be good but he wants to ensure that the people out there can continue to make a living taking people fishing.

Johnny Walker - Charter owner

Johnny thinks the states can better manage the fishery than the federal government. If the Council can put in place measures that ensure one state's harvest does not cut into another, then regional management is a good idea. He also believes that a tag system is a reasonable solution to the recreational season problems.

Todd Hanslik - Private recreational angler

He supports the idea of regional management and would like the Council to give the states a shot at incremental management of this fishery. It will be very complex to develop the regional management program and Todd would like to be sure that the Council continues to involve fishermen in the development of the program by sharing information and inviting people to comment. He wants to pass on the ability for future generations to fish, and he fears that the fishery is slowly migrating to a liberal system that is similar to that of Canada where you must pay someone to take you bluefin tuna fishing. He would really like the state to have the opportunity to manage snapper on their own.

Gary Graham - Texas Sea Grant

He thinks tags should be considered because it is a potentially viable system that works in the hunting world. He would like to discuss density-dependent allocation because population is limited by habitat.

**Corpus Christi, Texas
January 15, 2013**

Council and Staff

Doug Boyd

Emily Muehlstein

37 members of the public attended.

Mary Ann Heimann – South Bay Marina

It's a good idea that the states take control of the fishery but she thinks that the states should be given full control.

Russell Sanguinet - Charter; Dolphin Dock Inc.

Council can't allocate based on the number of licenses because we can't use historical licenses to determine it; people have not been buying licenses and won't until there is something to catch. He wonders how we are going to differentiate between federally permitted vessels and state-permitted for-hire vessels if the state of Texas gets regional control? Would federal permits be allowed to fish in state waters? The whole purpose of this idea should be to make each state responsible for their own fishery and not be managed by another mismanaged fishery (NMFS).

Jackie Romeyn - Charter; Fisherman's Wharf

She would like to know what the distinction would be between the federal and state waters. She does not currently have a federal permit and wonders what the distinction will be under regional management. Jackie likes the idea of state-based regions or even smaller regions because she believes it will allow for better scientific information, better allocation, and better local regulations if the states are given more responsibility.

Troy Williamson - CCA

The concept of regional management has been developed because of frustration toward federal management. Red snapper are more abundant than ever and management has worked, but it's time to reap the benefits of success. The CCA supports driving management to the lowest level of government possible. The states should manage with as little federal influence as possible. NMFS is "rewarding" anglers with a 27-day season and a 2-fish bag limit after they have sacrificed to rebuild the stock. This short season will result in a wide-spread revolt to fisheries management. The transfer of responsibility will be no easy task; enforcement, monitoring, etc. will be difficult to control. The states should have the ability to manage both commercial and recreational harvest of red snapper.

Mike Nugent - Port Aransas Boatman Association and Charter operator

They have been asking to split the Gulf for 10 years. This is the first time the Council has responded and he hopes that people keep moving forward to get this plan to work. Each state should get their allocation from historical landings and it's really important that each state is independent from the others. The mistakes other regions make should not affect each region. The problems with MRIP could be solved by dividing it into other states who can take more control of their data collection programs. Regional management is desperately needed and would take away the state vs. federal permit issues.

Mike Miglini - Charter; Out to Sea Adventures

He would like allocation to be based on biological abundance of the fish. He supports regional management because local folks can make better regulations for local needs. He sees problems with Reef Fish Amendment 30b and section 407 of MSA which will kill charter boats and headboats. Credit should be given for artificial reef and restocking programs when determining abundance. He would like people to look at tags for recreational boats, and if that's good for private recreational boats he would like to see something for for-hire boats that would allow anglers to fish the days they want; they could use an AB tag system to stay in business.

Mike O'Dell - Charter; A Fishing Fantasy Guide Service

He supports regional management because the states can make better regulations than NMFS can.

Dennis Lug - Retired charter, now private recreational angler.

Would like to see some sort of regional management system worked out.

Steve Hardy - Private recreational angler

We are here because federal fisheries management is not working and it's time for something different. He supports any plan that has Texas as their own region. Boundaries would extend into the EEZ. We are not managing licenses, we are managing fish, so allocation should be based on abundance of fish. There are multiple stocks of red snapper based on habitat and reefs. He is worried that we are having a discussion about how we divide the pie but we are saying nothing about how to make the pie bigger. We need to do something about structure offshore.

Jim Smarr - RFA Texas

RFA believes in state management and has for 17 years. We should use the longest data set possible (historical landings) so that Texas can be treated fairly. It should be a biological abundance decision, period. The SEDAR-style stock assessments should be conducted regionally so that Texas can fish their own stock; monitored and determined by Texas. Management guidelines should not be established by the Council; the state should be given full control of their allocation. There needs to be an amendment to the MSA that cures the system that allows the other states to be affected by another region's overrun of their own allocation.

Brett Casey - For-hire; Port Aransas Boatman Association

Out of all the discussion, it still boils down to NMFS still monitoring the red snapper, and if one state catches the whole allocation, we're still back to square one. We need to figure out what we

need to do to limit this. Texas should be given their own allocation and each region's behavior should not affect what the other regions do. It's time to make a change for the good.

Tim Oestreich – Headboat Captain; Dolphin Dock Inc.

The federal limit seems to mainly limit the for-hire folks with federal permits. Some kind of separation should be made for someone who owns a business, because as it is, private fishermen can catch 4 fish all year-round, while federally permitted for-hire boats have a real short season. It would be very helpful if the season can stretch.

Biloxi, Mississippi

January 15, 2013

Council and Staff

Dale Diaz

Ryan Rindone

23 members of the public attended.

Johnny Marquez - CCA Executive Director, MS

Local managers can do a better job of managing fisheries for constituents. Concerned about how regions will be defined. Want fair and equitable access to the fishery. How would state management entities be funded to conduct regional management?

Tom Becker - Charter for-hire captain

Red snapper are very abundant. Concerned about what Mississippi will get with respect to allocation. Want to know who makes up the catch numbers.

J.R. Titmus - Private recreational angler, artificial reef builder

Louisiana is claiming 9 nautical miles for state waters. Has no idea how recreational catch data are calculated. Would like to see state control out to 9 nautical miles in Mississippi, and the federal government can control beyond that. It is not possible to fish all 27 days of the proposed 27-day red snapper season; it's just too expensive.

Tim Knighten - Private recreational angler

Does not understand how the stock assessments work. It is hard to catch triggerfish because there are so many red snapper. Red snapper are eating everything. Doesn't trust the federal government or federally generated data. Supports state management of red snapper.

Gary Smith - Gulf Council Red Snapper Advisory Panel

There is a major issue with counting the recreational catch. The entire process is a joke, and the federal government is screwing the recreational sector. Flew from Mississippi to Florida to count the number of boats fishing to prove it. Mississippi needs regional management. What happens when Texas removes all of the oil rigs?

Keith Cuevas - Marine Biologist, Gulf Coast Research Lab

Mississippi needs regulations extended into federal waters. Allocation should account for this. Other states have shallow water oil rigs and Mississippi does not. The Gulf Council needs to get involved in the rigs-to-reef process. Juvenile red snapper recruit to the oil rigs. Supports regional management authorities, based on good communication. If states pursue regional management individually, then their independent harvests could have a domino effect on the other states.

**Orange Beach, AL
January 16, 2013**

Council and Staff

Bob Shipp

Ryan Rindone

125 members of the public attended.

Pat Willingham - Private recreational angler

Has seen a four- to fivefold increase in red snapper over the last 40 years. All of the fish are in the 9-25 pound range. Divers tell him that the juvenile fish of other reef species are almost gone due to the red snapper. The Gulf Council needs to consider the impact of large red snapper on reefs.

Tom Steber - Charter for-hire captain

Need to look at regional management. The big issue will center around how the lines are drawn. The overarching issue is the Magnuson-Stevens Act. Fishermen need to rally together to get MSA redone or fixed. Alabama has the best reef zone in the world.

Kevin Sinyard - Private recreational angler

Watched the bag limit drop from five fish to two. It costs a fortune to go fishing for red snapper now.

Dale Ruckle - Private recreational angler

Can't even get a charter to go out fishing for red snapper. Bag limits are too low. Local businesses are losing tourism business as a result.

Troy Frady - Charter for-hire captain

Concerned about how to make a living. Bag limits have plummeted. Cautious about regional management of recreational red snapper. Is regional management going to extend the season or increase the creel limits? Is Alabama going to manage the fishery better than the National Marine Fisheries Service? The regulations are affecting our livelihood.

Gary Malin - Private recreational angler

Fished only a few days last season and limited out on red snapper each time. Red snapper are eating everything. Regional management should be done with a break between Florida and Alabama; this would be more fair for Alabama. Current fisheries regulations don't make sense.

John Kemper - Private recreational angler from Minnesota
Alabama anglers should fight for their rights.

Tim Wilson - Private recreational angler
Fishing is an inalienable right. There are plenty of fish in the ocean. The charter for-hire fleet is afraid of the federal government. Fishermen need to protect their rights. Government has taken all of those rights away. Shorter seasons make it less likely that people will fish. Local control of fisheries is better.

Tom Ard - Charter for-hire captain
The best idea so far for red snapper is regional management. Alabama does a great job counting fish. Each region should be held accountable for their allocation. Would fish tags be used? How might regional management apply to grouper in the future? Use historical biological data for setting the allocation and adjust it periodically. Fears noncompliance by states like Texas and Louisiana.

Ben Fairey - Charter for-hire captain
The fisheries management process takes too long. Regions will all fight for allocation. Alabama should not be grouped with Florida. Alabama only has 3 nautical miles worth of state waters, while other Gulf states have more. Wants assurance from the Alabama Gulf Council representatives that Alabama will be cared for in this process.

Bill Coursen - Private recreational angler, Pensacola, FL
Whenever the government takes anything over, they mess it up. Fishing rights are being denied. Caught 76 red snapper last year, and discarded close to 400. Hopes that some regions won't be unjustly shorted on their allocation.

Matt McLeod - Charter for-hire captain
There is a disparity between the number of fish caught and the reported landings. Both are total unknowns. Supports states all going noncompliant. NMFS's red snapper management plan will crumble with noncompliance, and NMFS will have to do what the fishermen want.

Chris Sherrill - Restaurateur
There will be economic problems if the season length drops to zero. He depends on recreational fishermen eating at his restaurant during the summer; no red snapper, no customers.

Gary Bryant - Charter for-hire captain
Red snapper season should last 180 days at a 4-fish per person bag limit. Supports regional management by individual states with accountability measures provided by the Gulf Council. Likes the idea of fish tags. The charter for-hire industry could receive their annual allotment of tags at the beginning of each year, and the private recreational anglers could get tags to catch red snapper at will. Harder to find more desirable fish.

Rashley - Private recreational angler
The federal government is over-managing. Flawed management affects everything.

Alan Taylor - Private recreational angler

Supports regional management of recreational red snapper by state.

Dwain Sanders - Private recreational angler

There are thousands of red snapper off Alabama. The charter for-hire industry is ruined. Commercial fishermen are paying lobbyists to raise the price of red snapper.

Robert Turpin - Escambia County Marine Resources, Private recreational angler

Supports regional management of recreational red snapper with allocation based on biomass. NMFS is currently trying to rebuild red snapper to a threshold that is too high. Will never be able to meet the rebuilding threshold.

**Destin, Florida
January 17th, 2013**

Council and Staff

Pam Dana

Ryan Rindone

104 members of the public attended.

Candy Hansard - Private recreational angler

The portion of Amendment 30B requiring CFH fishermen to adhere to the strictest regulations needs to be eliminated. States shouldn't be penalized for other states exceeding their allocation. Regional management is needed. Need to solve fisheries problems, not manage them. Need more artificial reefs. The Gulf Council needs to look into private artificial reef construction.

George Eller - Charter for-hire captain

Regional management of recreational red snapper may have merit under some conditions. There are too many unanswered questions right now. Need to table the amendment until the next assessment is completed. Until the CFH portion of Amendment 30B is gone, competition will be unfair. Texas is in violation of current regulations. Louisiana extending their state waters will take an act of Congress.

Matt McLeod - Charter for-hire captain

Been coming to these meetings for ten years. Lots of false hope. System has failed the fishermen. The regions would be fighting over a constantly shrinking pie. Supports states all going noncompliant. Fishermen need leverage against NMFS. States could grossly exceed the TAC set by NMFS, and the NMFS's red snapper management plan would crumble. Fishermen could then demand that NMFS work with them. The problem won't be solved by anything less.

BJ Burkhead - Charter for-hire captain

Opposed to regional management; table the amendment.

Stewart Miller - Charter for-hire captain

Opposed to regional management; table the amendment. Too many unanswered questions.

Chuck Guilford - Charter for-hire captain

Opposed to regional management. Opposes all management without consideration of ecosystem variations. Opposes any separation between the CFH and private recreational fishing groups.

Tom Adams - Charter for-hire captain, www.mexicobeachcharters.com

The Gulf Council should appoint new people to the Advisory Panels.

Dr. Rain - Private recreational angler, Destin resident

Has quit fishing deepwater outside of the red snapper season because red snapper are all you can catch when you go out there. Huge red snapper off of Destin. Fisheries management needs to focus on the data collection.

Brant Kelly - Charter for-hire captain, www.relentlesscharterfishing.com

Opposed to regional management. Table the amendment.

**St. Petersburg, Florida
January 22, 2013**

Council and Staff

Martha Bademan

John Sanchez

Ava Lasseter

24 members of the public attended.

Capt. Bob Bryant - Charter

In considering regional management, once again we are trying to manage something that we don't know what we're managing; we don't know the numbers. The stock assessment fails to get a huge percentage of the fish from oil rigs and artificial reefs. The majority of the stock assessment is based on natural structure that NMFS knows. The majority of fishermen are going to artificial structures and we are not capturing fish from those places. Stock assessments are useless without this, making catch data useless, too. There are more problems than benefits in regional management and it seems to be a backdoor to sector separation. What we need to do is to unite fishermen and provide good data to NMFS and have them provide good data to the fishermen in return.

Bo Gorham - Private recreational angler

For-hire operators do a great service, but private anglers put money into economy and so have an important voice. He works weekdays so only had 12 days possible to fish red snapper during last year's season, and was only able to go fishing four times. Investing in gas and boat wear and tear for a derby fishery is not sustainable. Upon hearing this year's estimated 27-day season, he started running his own numbers. He compared MRIP's effort data and number of fish caught a day and the numbers don't work out. If effort data stays constant, it shows they didn't overfish last year but came out right at quota. If that's true, he should have 42-day season again this year. But it's a crap shoot because we don't know the stock. He does agree that taking management to the regional level now is crazy; the data are not there now to manage as a whole. Dividing into

five ways creates new bureaucracy that taxpayers will have to pay for. The states don't cooperate now. It's a way to avoid the hard part which is to validate what is going on in the fishery. Data is the key.

Capt. Mark Hubbard - Hubbard's marina, John's Pass.

He is strongly against splitting up amongst the states and echoes Bo Gorham's comments. He doesn't want another layer of bureaucracy on this fishery, especially since the Council can't manage fishery now. Plus, taxpayers can't afford it; it's more and bigger government. The plan takes away from state powers and discriminates between for-hire, federal, and state permit holders. It discriminates between the states, and appears to move toward sector separation. It uses fatally flawed data to micromanage a fishery that is already screwed up. It seems to divide and conquer the Gulf of Mexico. He is against regional management now, but would have supported it with a 6-month season. A full benchmark assessment needs to be done on red snapper. The fishery needs more days for open access fishing. It's the opportunity to fish that drives our economy, and a 27-day season is just silly with all the fish out there. Resources are being spent on assessing smaller reef fish instead of the important species.

Before considering regional management of gag, a full benchmark stock assessment is needed. The Council is restricting the gag fishery based on a flawed stock assessment. The gag fishery is huge and more reliable data are needed. There aren't as many boats fishing now because they must spend so much money to go out. Ten years ago, there would be 15 boats at the Middle Grounds, but that doesn't happen anymore. The pressure isn't on the fishery the way NMFS and the Council say it is.

Concerning state boundaries and allocation of red snapper, if states get allocated pounds, could those allocations start to migrate over from the commercial fishery? If that was the case, he wants the commercial allocation that moves into the recreational sector to stay in the recreational sector. He doesn't want the commercial sector to buy out of the recreational sector. That would give them some protection, in case catch shares take hold in the recreational fishery.

Stephen Furman - Tampa CCA

He hasn't fished offshore much lately; fuel prices keep him in his kayak. He knows others don't do it as much anymore either, so offshore effort has gone down. He thinks people understand regional management would allow states to manage the fishery and they can do a better job. But it sounds to him like the feds would spread the 27-day season among the 5 states and each gets a 5-day season and that's not appealing. He thinks a 4-day weekend season would help spread out the days so people could fish longer. Concerning how to get better data, he supports the idea of an offshore permit for collecting data from fishermen, and says it's easy to do and is already done for migratory game bird hunting.

Dennis O'Hern - FRA

This plan appears to increase uncertainty and it is uncertainty applied to allowable catch that is hurting them. The idea for regional management, regional cooperation, is a great concept, but it's called the Gulf Council and you already have that. The problem seems like the Council is told what they have to do. He is not sure where regional management is coming from; it looks like sector separation. He doesn't want to give NMFS more power to close a fishery arbitrarily.

For greater amberjack, they closed the season in 5 days, in-season, based on MRFSS data which is not supposed to be used for in-season quota monitoring. The MRIP data is still just random telephone surveys; Florida is starting new data collection but it's not making it to the top.

It's been 10 years since having a full stock assessment on red snapper. The current one is a modified benchmark assessment, and it should be a full assessment; the Council needs to make some more noise about that. These plans take away state powers; if state waters are managed by the states, anyone can fish in state waters, permit or no permit. The feds cannot come in and chain you to that federal rule. That is for all the charter guys.

They had clamped down on red grouper even though they were thick as flies, and they won a lawsuit against the regulations. The same thing has been going on with red snapper and gag; the clamp is staying on it. Roy Crabtree is clamped by certain rules, as is the Council, but we threw off slavery and other rules and putting up with this is just plain wrong. The spring shallow-water grouper closure is not needed, and he can't believe it isn't done (the rule making), so Mark Hubbard and his employees cannot access what is known to be a healthy fishery. There is no reason the closure can't be rescinded. If Dr. Crabtree can close amberjack in five days, he can open shallow-water grouper. The analyses have already been done. There will be an online petition up by tomorrow to address the 2-month closure, because it would be a half million dollar bump to the fishing economy.

Libby Fetherston - Ocean Conservancy

She lauds the goal on increasing flexibility for recreational fishermen, but is concerned that regional management isn't the way to go. There are issues with monitoring and enforcement and it is unclear where from the federal budget enforcement funds would come from. Without additional funds for monitoring, they would need a bigger uncertainty buffer and she doesn't see that happening because it would further reduce the season. She is uncertain how much flexibility states would have; it may be limited to when they have their seasons and the bag limit. She doesn't see this as a mechanism for optimizing recreational fishing opportunities.

As with all their comments on scoping documents, she feels that the Council and NMFS should analyze a wide range of options that address this issue. She is concerned about how federally permitted charter operators would be affected by regional management, and that warrants further analysis. NMFS must ensure that this is consistent with federal law and the rebuilding goals for red snapper. She predicts the assessment will show great progress has been made in rebuilding red snapper, but that they aren't there yet.

Vance Tice - FRA, Minnows and Monsters

He is still very upset that no Council member attended the last public hearing and he is concerned that Council members did not receive their testimony. He had a tackle shop that is closed because of draconian measures; 60% of his business was offshore fishing and there is no more offshore fishing. He's against catch shares but they keep trying to slide it in there; the majority in Florida is against catch shares. Congress has addressed it but they move on with it. The way effort is calculated is a big problem. He has called a lot of businesses and they report that business is down, but the data show effort is up so there is a problem there. At the boat ramps, you don't see the big trailers anymore, you see smaller bay boats. He knows guys who

have sold their offshore boats because it isn't worth it anymore. When FWC goes out and does mortality studies that show that the data are way off, their studies are ignored. Bob Shipp's paper says there is way more red snapper than the Gulf Council wants to admit. It's hard to feel a part of management when what they see is 180 degrees from what is being shoved down their throats. For red snapper, they used to have a 192-day season, 4-fish bag limit, and they never overfished the limit. Now with a 40 day season and 2 fish limit, they've somehow miraculously overfished the limit. Factors like weather, price of gas, and the economy are not taken into account. People are struggling. You're not just affecting people who fish, you're affecting every Florida citizen because when you take that money out of the state, the state still needs money to run.

Scott Moore

We don't even know how many people are fishing in federal waters. He doesn't like fishing licenses, but he knows why you have to have them. Magnuson was enacted to get information from the states on who was fishing in federal waters and he can't understand how to do this without knowing how many people are fishing in federal waters. He suggests that Florida implement the same thing as fish and wildlife did with federal regulations on migratory birds. The permits should be free because you're collecting the data and the feds should pay the states to do this. That's the first thing that should have been enacted. Just because a guy catches grouper onshore doesn't mean he fishes in federal waters. The only way to get this right is to permit the data. Another thing is poundage; Florida never went by pounds; they went by individual catch. Poundage is way too confusing, you want to simplify as much as possible. There are a lot of fish out there in trouble. There's no fishery in the world that has ever collapsed fishing on a slot [limit]; he feels slot limits should be used more.

Frank Bachelier - Captain, Hubbard's Marina

Since he came back to the area he's noticed an overwhelming change in the laws that have been imposed. For groupers, there's a big change in what you can't keep in federal waters. He gets gags year round and is not seeing the population decline like everyone is talking about. Out in 130 feet of water, red snapper are everywhere, and doesn't understand how people are getting these numbers. The FWC guys are there and they're awesome, but they are counting the number of runts coming on their boat, rather than figuring out other stuff out with their time. We're so limited with the season and we need to figure out what we're doing here. He's listening to everyone out here saying the way they collect the data is wrong, and everyone here at this meeting is against everything that's going on. No one here supports the 27-day season, they need better data.

Public Hearings were held in the following locations:

Thursday, August 1, 2013

Call-in session

Monday, August 5, 2013

Courtyard Marriott
11471 Cinema Drive
D'Iberville, MS

Wednesday, August 7, 2013

Holiday Inn Select
2001 N. Cove Boulevard
Panama City, FL

Thursday, August 8, 2013

Renaissance Mobile Riverview Plaza Hotel
64 South Water Street
Mobile, AL

Monday, August 12, 2013

Hilton St. Petersburg Carillon Parkway
950 Lake Carillon Drive
St. Petersburg, FL

Monday, August 12, 2013

Hilton Garden Inn
6717 South Padre Island Drive
Corpus Christi, TX

Tuesday, August 13, 2013

Hampton Inn & Suites
2320 Gulf Freeway South
League City, TX

Wednesday, August 14 2013

DoubleTree
4964 Constitution Avenue
Baton Rouge, LA

Summaries of Public Hearings

Call-in Session

August 1, 2013

Council/Staff

Kevin Anson
Ava Lasseter
Emily Muehlstein
Charlene Ponce

17 members of the public attended.

Tom Hilton - Recreational

Mr. Hilton believes that regional management puts the cart before the horse. The council is pushing for a concept that uses knowingly-flawed data that overestimates recreational landings by at least 70%. It would be better for the Council to help the Gulf states implement a state-based data collection system modeled after the existing Louisiana offshore landings permit. Second, the concept of sector separation has been slipped into the regionalization concept. It is irresponsible for the Council to give that type of decision-making power over to the states rather than tackle the issue Gulf-wide.

Dennis O’Hern- Fishing Rights Alliance

Mr. O’Hern wonders if there is no accountability measure for the recreational sector what is the 28-day season. The recreational sector is managed after the fact, due to the horrible mismanagement of data by NMFS. He also mentioned that people often submit false information to the Council and he asked for follow-up regarding the law and any past prosecutions under said law. He also expressed concerned that regional management was based on data that the Council knows to be wrong. The Gulf Council should be the management tool that we want, but NMFS influence and control over the Council must be removed. He stated that the Council should be run by the states with constituent input, and the members of the Council should be appointed by the Governors; not hand-picked by NMFS.

B.J. Burkette - Charter; Florida

Mr. Burkette does not think that regional management is going to help because the NMFS data is still a problem. There is no need to be so restrictive with the amount of fish and regional management won’t solve that problem.

George McKinney - Commercial, For-Hire, Private; Pensacola, Florida

Mr. McKinney wondered how enforcement would work in a place like Pensacola, Florida with Perdido Pass so close. He would like to see some sort of regional management. He wants small boats and private recreational anglers who are limited in days to be able to safely and effectively fish in the Gulf.

Bob Gill - Former Council member; Crystal River, Florida

Mr. Gill recommended that the Council require the states to come to full agreement on all points relative to regional management prior to the Council taking further consideration or action. He added that the Council ought to table the amendment until the states agree on all the issues. New issues seem to be cropping up and it’s going to be very difficult for the Council to find an endpoint if the states do not agree with every action and alternative.

Action 4 - Council should give serious consideration to a slot limit for red snapper. Spawning success is greater for large fish and preserving the older fish in the truncated population may have some merit. Mr. Gill acknowledges the discard problem and still believes a slot will be useful.

Bill Teehan - Former Council member; Tallahassee, Florida

Mr. Teehan thinks the entire concept is very interesting. He supports Action 4’s Alternative 7 which would allow individual regions to establish sub-allocations for for-hire and private anglers.

Corpus Christi, Texas
August 12, 2013

Council/Staff

Robin Riechers
Lance Robinson
Emily Muehlstein
Charlotte Schiaffo

20 members of the public attended (mostly Texas Parks and Wildlife and Harte Research Institute staff; about eight were members of the fishing public).

Cliff Strain - Port Aransas Boatmen Association

Mr. Strain commented that he understood the current data collection but believed that people were unsatisfied with the federal government because the regulations were not in line with what the people are seeing. He added that if a move toward regionally adjusting the data was not made, then regional management would not have the punch or be as effective as anglers wanted it to be. He noted that Texas had the structure and ability to manage red snapper, and while he did not think there needed to be a year round season which could deplete the resource, he did want to see a longer fishing season. He stated that he had not had to spend more than 30 minutes fishing to limit out. He expressed concern that eventually, the destruction of habitat would have an effect on fish populations and encouraged the Council to do what it could to control the removal of rigs. He stated that his association wants to support regional management.

Ron Moser - Port Aransas Boatmen Association

Mr. Moser favored individual states having control over their waters (Action 2, Alternative 3). He added that the data collected should be adjusted to account for the biomass of fish in the state of Texas, as Texas seemed to be penalized more than other states because of this not being taken into account. He supported Action 3, Alternative 1; do not apportion the quota based on historical landings. On Action 4, he recommended the Preferred Alternative 4, to allow individual regions to set recreational red snapper season start and end dates and season structure. On Action 5, he believes that for-hire vessels and federal permit restrictions should be left to Texas to manage the resource. On Action 6, he agreed a 2-year grace period (Option b) would be best so that the new program had opportunity for error without penalizing fishermen while the program adjusts.

Pat Harris - Private recreational angler

Mr. Harris would like to see as much effort from the Gulf Council to increase habitat quality as they did in forcing regulations on anglers. He added that trying to improve everything instead of concentrating on improving the fishery was the wrong path for the Council to take.

League City, Texas
August 13th, 2013

Council/Staff

Robin Riechers
Lance Robinson
Emily Muehlstein
Charlotte Schiaffo

21 members of the public attended.

Kristen McConnell - Senior Conservation Manager Environmental Defense Fund

Ms. McConnell expressed concern about the regional management proposal. She is cautiously supportive because Environmental Defense Fund agrees with the idea of increasing access and flexibility for anglers but finds it difficult to support an idea with so many outstanding issues. Regional management will present challenges to law enforcement; it may have unforeseen impacts on other species due to effort shifting. It is hard to move forward without a better understanding of what the states will do. States should provide details on what direction they will take and their proposals should include accountability measures in case of a quota overage. She fails to see the relative benefit of regional management for private and for-hire anglers in the long term because the concept simply promotes the use of the same management tools with the same pitfalls. A real solution that potentially uses regional management is needed, but the current amendment does not seem to provide that solution.

Bill Bahr - Charter Captain

Mr. Bahr is largely concerned with the health of the snapper fishery and properly assessing that population. He is a Texas native and he has confidence that Texas Parks and Wildlife will be able to manage red snapper. He is concerned about the discrepancy between Louisiana and NMFS landings data, and he would support Action 6, Option b which would create a 2-year grace period for the regions to establish their own programs without having the NMFS numbers shoved down their throats.

Scott Hickman - Charter Captain and owner of Commercial Red Snapper IFQ

Status quo is not working. The commercial IFQ program can be credited for success of some of the red snapper recovery and he would like a similar tool to be considered for the for-hire sector. Mr. Hickman can't participate in his own state waters, so he supports Action 5, Alternative 2 to remove the requirement for for-hire vessels to adhere to the strictest regulations. Mr. Hickman also supports Action 4, Alternative 7 which would allow for a separate sub-allocation for the private for-hire industry. Amendment 39 has a lot of holes in it and he is afraid that Texas will have a weekend season or something that will shut out the charter industry. He is tentative about supporting the amendment and wants the charter boat fleet to have assurance before he can move forward.

Paul Bitner - Charter Captain

There are a lot of holes in how the landings are calculated and he would like to see greater accountability in how those numbers are collected. Mr. Bitner does not think we can get a grip

on the numbers without implementing a tag program to keep better track of the fish. Mr. Bitner has limited days to catch fish and make business work and the current management does not allow for success. He supports Action 4, Alternative 7 because he would like the private and for-hire fishermen to be managed separately.

Johnny Williams - Headboat owner/operator

Mr. Williams thinks there are going to be winners and losers under a regional management program, and we are in a situation where we don't know who those winners or losers will be. Texas landings have decreased but it's not because the fishing is getting worse; he predicts that under status quo, the Texas proportion of the harvest will continue to decrease. He supports states' rights and wants the federal entities to stay out of his business. Mr. Williams has a hard time supporting the amendment without a better understanding of what the program would look like if delegation were given to Texas. He would be opposed to a situation where the red snapper fishing would be open only on Saturdays during the summer and he does not know where the State stands.

Tom Hilton

The data is showing that headboats are landing 68% of all the red snapper, so headboat operators have nothing to worry about. Mr. Hilton wants to Council to get a hard handle on exactly what we are doing before jumping off into the unknown using flawed data to determine allocation percentages in Action 3. There are no regional assessments of biomass and the feds have taken control of the commercial fishery without regional control. Off Texas the working allocation is not 51% commercial and 49% recreational. There are far more commercial harvesters off Texas, and here it may be closer to 70% commercial and 30% recreational. He says that there is nothing regional about this concept because the federal agencies will still hold critical control points. The Louisiana offshore landings permit should be a sounding bill for every Gulf state to implement their own data collection system. Louisiana didn't believe the feds and they proved them wrong. In Mr. Hilton's opinion, it is a dereliction of duty for all involved to move forward with this amendment with this flawed data.

He proposes a better solution:

1. Implement a data collection system across the Gulf for each state modeled after the Louisiana offshore permit.
2. Implement an 11 million pound annual catch limit over the next 3 years.
3. Give any increase in quota to the recreational fishermen because their season and bag limit has been slashed while commercial folks have had full access to their quota.
4. Reinstate the 149-day season.

Steve Cunningham - Charter Captain

Mr. Cunningham shares the other speakers' opinions. Caution is important and using only fishery dependent data needs to change. 30B needs to be removed so he can be successful as a charter operator. Mr. Cunningham supports Action 2, Alternative 4 which would create 5 regions, one for each state. He supports Action 3, Alternative 3 which would remove landings from 2006 and 2010 from the allocation decisions. He made it clear that biomass data needs to be included somehow even if it's not given the weight that the historical landings are given. We know there are more fish in the western Gulf and that needs to be accounted for. He supports Action 5, Alternative 2 which would create a 2-year grace period. A 3-year period may be even

better. He is slightly leaning towards having more faith in Texas than he does in NMFS. There are a lot of issues in the document so before any radical changes are made, we need to look at this idea very carefully. The fishermen on charter boats are recreational anglers and they, along with seafood consumers, are important contributors to the fishery.

Shane Cantrell - Charter owner/operator

Mr. Cantrell is disappointed that regional management does not allow for planning or provide for additional methods of data collection. He would prefer a multispecies IFQ program for the charter industry. The commercial program works well for commercial fishermen and he understands that changes would be made to accommodate his industry. He wants the real time accountability. He thinks harvest tags would work out very well for the private recreational anglers. As it is proposed, regional management is just a reshuffling of the deck with the same management tools and he would rather new novel approaches to management be considered.

David Conrad- Charter Captain

He fully supports Action 5, Alternative 2 to allow for-hire boats to participate in the state season. 30B needs to go away because recreational fishermen on their boat should be allowed to fish just like recreational boat owners. He sees issues with allocation for the states. He needs to see what's in the details before fully supporting this document.

**Baton Rouge, Louisiana
August 14, 2013**

Council/Staff

Camp Matens
Emily Muehlstein
Charlotte Schiaffo

24 members of the public attended.

Chris Macaluso - Theodore Roosevelt Conservation Partnership

As an organization, they are trying to work within the system to better manage the recreational fisheries. Trying to manage red snapper to a total allowable catch is destined for failure because the Marine Recreational Information Program does not reflect an accurate count of the fish that are being caught or how many people are fishing. For Action 3 he is concerned with basing the quotas on historical landings. Historical landings from Alabama and Florida will reflect more landings but that is a measure of fishing pressure not abundance of fish. He does not want to restrict pressure but if the target in MSA is to end overfishing and the Council allows states with less biological availability to out fish the areas with greater availability, we are going to fail. Managing the red snapper as one stock may be a problem. The fish don't migrate from west to east; there are fish in each region. Allowing an area with less fish to harvest more of the fish will not end overfishing. The only way we will successfully end this problem is to allow more fishing where there is more biological availability and less where there are less fish.

Ed Fike - Environmental Consultant and private recreational angler

He is supportive of what he has heard this evening. He is happy that Louisiana is taking the charge and that NMFS is working with fish. Biological availability of the fish is very important and he thinks that needs to be considered during allocation (Action 3). During the fall supplemental season, he fished every weekend and never saw anyone at one of the key landings sites. Based on his observations, he does not think that fishing is that important here in the fall.

Kenny Acostu - Private recreational angler

Mr. Acostu likes the opportunity to go fishing and he enjoys it, but opening June 1st with 2-3 foot waves is hard on him. Let the states manage using the weekend season and if it's recreational that's great because it will benefit him. There is no reason to go fishing for anything outside of red snapper season because you can't catch anything but red snapper; it makes his other fishing less enjoyable. He wants to fish without feeling like he is being wasteful and killing something by accident.

George Huye – CCA; Private Recreational Angler

He is in favor of regional management. For Action 3 he is concerned about the use of historical landings data because it does not fix the problem of inaccurate fisheries dependent data and it doesn't make much sense to perpetuate the current system forward. He sees enough alternatives for the Council to be able to make good decisions here. Regional management will give the people of Louisiana a better opportunity to have a chance to catch what they may have had in the past. We know the stocks are strong and this will give the Louisiana fishermen an opportunity to put their trust and faith in their own resource management department.

Rebecca Triche - Louisiana Wildlife Federation

Ms. Triche noted that red snapper is a hot topic for her members. The Federation submitted comment in January already. She would like to see a regional approach because the Louisiana Department of Wildlife and Fisheries has the capability to assess the stocks. She wants limits to be set based on biological availability because the western region can sustain more harvest than the east. There was lots of activity in legislation regarding the passion Louisiana anglers have. She urges the Council to continue moving forward with this idea to acknowledge the frustrations of recreational anglers.

Rad Trashe - CCA Louisiana

Mr. Trashe expressed his full support for regional management. We all know that we've had faulty science and poor management. This is an opportunity to do what everyone wants; what's best for the resource and what's better for the fishermen. The Department of Louisiana Wildlife has proven that they do better science than NMFS. This year there was someone at the ramp every single day. We should put the power in Louisiana's hands and let them run with it.

D'Iberville, MS
August 5, 2013

Council/Staff

Dale Diaz
Corky Perret
Ava Lasseter

7 members of the public attended.

Tom Becker - Mississippi Charter Captains Association

The Association discussed this the other night and decided that they need to go along with this and see what happens. There are problems with the data because they were never checked to see what they're catching on his headboat. He wants to see someone checking landings more often instead of telling him when they can get there. The Department of Natural Resources is hurting for people. There are so many places to unload your fish and that's what's happening.

Gary Smith - Recreational

Mr. Smith's first concern is the legality of regional management. There needs to be a non-biased person looking into it, in case in a couple of years it's determined they did something they shouldn't have done. He doesn't have a problem with regional management, but it needs more thought about how to divide the quota. Texas, the largest state, only got 12%, but Florida landed so much [2012 landings]; what's going to happen as the population changes? There are a lot of areas that need to be addressed: will there be annual adjustments, what process will be required, what happens when Texas demands more? The biggest issue is how you're going to count/estimate the data. Everyone agrees the data is flawed, but we're not addressing that. To fix it, got to count the number of boats. Don't worry about the number of fishermen, just the number of boats. Then each state could require a boat permit and you couldn't have red snapper aboard until you have the boat permit. Looking at Mississippi's data, it comes up to 22,000 fish they could catch. He has counted the number of boats and has never counted more than 50 boats. The most he's ever counted was 88; the boats just aren't there. You'll be back to 21 days even with regional management. Counting the boats is how you have got to correct the problem.

John Marquez Jr. - CCA Mississippi

He supports regional management and wants management taken to the state level, which allows them to control the fishery, best for their anglers. CCA wants to see the states have the ability to manage the commercial red snapper quota and be allowed to allocate among sectors. They would like red snapper removed from the reef fish FMP, as has been done for misty grouper and other species. He echoes Mr. Smith's comment that any plan needs to contain flexibility to allow for change within the states over time. Mississippi has concerns about how this would be funded, as they have a different sort of funding mechanism for data collection.

**Panama City, FL
August 7, 2013**

Council/Staff

Martha Bademan

Ava Lasseter

Ryan Rindone

7 members of the public attended.

Chris Niquet - Commercial

He noted the differences between the percentage of red snapper landed by state since the oil spill and the allocation under Alternative 4, which would be based on the ABCs [separate east Gulf and west Gulf stock assessments]. So recreational allocations would be 48.5% for the eastern Gulf and 51.5% for the western Gulf, which lands the least recreationally. He thinks this seems backward. It seems like Florida and Alabama would get the bulk of the ABC.

Bart Niquet - Commercial

He feels the charter and headboats are stepchildren in all of this; they get no consideration from the commercial side or the recreational, side and they are being put out of business. They need their own sector and own bag limits. For red snapper, the recreational sector should go to 60 days with a 2-fish limit and set that in stone. He thinks they should be given something they can depend on so they can make a living.

Bob Zales, II - Charter Captain

He is speaking for himself, as the PCBA has not taken a position yet. He is conditionally supportive of regional management if it is only being discussed for the recreational sector, and will have no impact on the commercial sector. He supports the preferred alternatives in Actions 1 and 2. For Action 3, he supports Alternative 2 Option d, which doesn't benefit Florida the most out of all the options, but seems like a fair allocation. For Action 4 he supports only the Preferred Alternatives 2, 3, and 4. He is a little confused by Action 5; he wants the provision removed so supports that. But even if regional management does not go forward, he wants this action to go forward and be finalized before the 2014 season. For Action 6, he prefers Preferred Alternative 3, Option b, to allow the longest grace period to adapt to the change in management. He's confused by Action 7 because he doesn't see how it's going to work. Under the Magnuson-Stevens Act, the fishery must be closed when the quota is met. What happens if Mississippi fishes a lot? They could effectively cause the closure of the rest of the Gulf. He recommends rescinding 406b of Magnuson-Stevens Act that includes that requirement. It may have been necessary in 1996; it's clearly no longer necessary. Finally, as a for-hire operator, he emphasized that his passengers are private recreational anglers, just like those fishing on their own boats.

Jim Clements - Commercial

Although CCA and RFA have criticized the IFQ program, Mr. Clements supports regional management if it will help the recreational fishers catch more fish and have more days to fish. But, this must not affect the commercial red snapper fishery.

Mike Eller – Charter and Commercial

Mr. Eller is speaking for himself and his own for-hire vessel. For Action 1 he prefers Alternative 3 [Council-implemented regional management]; for Action 2: he supports the preferred alternative for 5 regions. Action 3, he supports Alternative 2 Option d, combining the long and short time series.

Regional management is a slippery slope that could result in benefits or could turn into a total fiasco. He is asking himself, can his state can do a better job than what is going on now? If the states get together and make a big advance on data collection, it could be better. But if they don't do that first, then this is putting the cart in front of the horse. This is hard for him to support when he doesn't know the long-term ramifications. His state will make decisions dependent on the current political persuasion at the time. What if his state chooses to adopt a weekends only season? That would really hurt the for-hire fleet. At least with the Council, you have diverse opinions represented. He would like the individual states to have leeway in setting opening season dates, but maybe not to set different size limits. He supports increased flexibility but it is a slippery slope. He wants to see the regional plan for each state before he supports it and they don't have that yet because it is still new. He wants to hear from a state how it would actually manage red snapper better than the NMFS. He does not want the commercial sector to be impacted by this.

He supports the preferred alternative in Action 5 and thinks the 30B provision is unfair and unconstitutional. In Action 4, he supports Preferred Alternatives 2, 3, 4, 5, and 7. Anglers that fish on for-hire vessels should be protected and shouldn't be lumped in with private anglers who fish differently. He feels there should be the possibility for sub-allocations. In Action 6, he supports Alternative 4, Option b; establish a 2-year grace period before implementation of overage adjustments.

Don Whitecotton - Charter

We have all looked at how we are going to protect the life of the fish, but we are putting our industry at risk by setting the season in the middle of hurricane season. Even if the weather is bad, charter boats have to go out to make a living. We need a way for the for-hire boats to go out, and this is a big socio-economic issue. They have been lucky nothing has happened on the headboats yet [accidents]. He suggests a year round season with a number of days you can go out to fish. We can surely regulate ourselves [when we go out] if we can regulate these fish.

Warner Foster - Recreational

He is very interested in the quota issue and wants to know how they get the quota. He hears they just pull it out of somewhere. He has never had his fish counted and weighed checked on his boat. Commercial guys have to weigh in all their fish, but no one is ever at the ramp asking him what he caught. With the size of his boat, he's not going to go out in the rough weather and get beat up. The June 1 season start was during rough weather and they couldn't get out most of the season.

***The following comments were received in Panama City on August 6, 2013 at a hearing on Coastal Migratory Pelagics.**

BJ Burkett - Charter and commercial

Capt. Burkett thinks the whole program is going to be a logistical nightmare. Red snapper isn't being managed appropriately now, but they're going to throw 5 more leaders into it? It's going to be very complicated because the regulations change so often. On all the actions, except Action 5, he wants no action. He does not want regional management. The issue we should be fixing is the flawed data. Regional management will make regulations based on incorrect data instead of tackling the issue of getting more days. He has heard we're never going to get back to where we were just a few years ago [longer season], but that's what people want. Regional management might leave them with 25-30 day seasons, which doesn't take us anywhere close to what people want. Therefore, he doesn't see the benefit of doing it. Maybe one state can fish a few days longer, or keep one fish more than another region's bag limit, but he does not see benefits to the whole Gulf and for all anglers.

Randall Akins - Recreational, retired charter captain

Capt. Akins has a historical captain permit that he can't transfer to his children and that's not the way of doing things in America. His children should be able to receive his permit. When he was in the Coast Guard, he was told you couldn't sell permits, but now you can so he is confused. At least 50% of the time he has broken the law because he has to throw back red snapper that are not at least 16". He has to throw them back and the dolphins get them. Feeding dolphins is against the law and he knows someone who was fined for feeding dolphins. This can be solved by keeping the season open year round and you can keep your first five fish. He was told that would be culling the fish, but that's what he's doing now. He doesn't support setting seasons or size limits.

**Mobile, AL
August 8, 2013**

Council/Staff

Kevin Anson
Chris Blankenship
Ava Lasseter
Ryan Rindone

11 members of the public attended

Palmer Whiting - Recreational, Alabama CCA Chairman

Mr. Whiting thinks the state has done a good job of managing its inshore fisheries and can do a good job with offshore fisheries. They built this habitat and they can manage it. Alabama has a lot of habitat and a lot of snapper. CCA members are in favor of that and having it on a more local level, with local scientists, who are more than capable. Bring management down to the state level is preferred.

Captain Mike Thierry - Charter

Capt. Thierry thinks states can manage it better. The inconsistency of allocations needs to be addressed so everyone is on the same playing field, and the number of days each state is allowed to fish is not impacted because of another state's regulations. Basing allocations on landings when some states who were open while Alabama was closed is like rewarding them for not playing by the rules. Sub-allocations are needed because one size does not fit all. The weekends-only season that private vessel anglers prefer would not work for the charter fleet. There should be no more restrictions than the for-hire fleet already has compared to the private recreational anglers. He supports the states taking over management and feels they are up to the job. He would like to have states do their own stock assessment. They are here locally every day and could do a better job. Each region needs to be accountable to its own quota. For example, Destin's rodeo is in October and they'd like to have the season open then. We'd like our own rodeo season in July; so one size doesn't fit all. Texas wants to be open in the winter as it's a good time for them. Alabama has got some of the best people in the world working on this stuff right here.

Skipper Thierry - Charter

He supports state management of red snapper and the ability of a state to establish sub-allocations. He would like for the state to conduct its own stock assessment, eventually. He wants the accountability measure, but they need to be flexible because landings often fluctuate annually for all kinds of reasons beyond our control.

**St. Petersburg, FL
August 12, 2013**

Council/Staff

Martha Bademan

Ava Lasseter

Ryan Rindone

Doug Gregory

8 members of the public attended.

Buddy Bradham - Recreational Fishing Alliance, retired charter and commercial fisherman

The RFA has a lot of problems with this so for right now, they prefer No Action be taken on all actions. They're behind on getting data sets in place. Florida is working on it but it is unknown when this will be available. There is the potential for going over the quota. The season dates would have to come from each state. There was a meeting on Friday morning where it was said it may cost 2.5 million dollars per year, and that's funding Florida doesn't have. These are problems that need to be solved before we go into regional management. If the improved data collection is in place, they would support regional management with the following preferred alternatives:

Action 1: prefer no action until data is fixed. Action 2: support the preferred alternative of 5 regions. For the quota (Action 3), they have a big problem with the data sets that may be used.

Louisiana has just proved how bad the NMFS estimates are: 70% off from their catches. They would like any new data program to run for 3 years then base the quota allocations on that. Action 4: they support the Preferred Alternatives 2, 3, and 4. But, they strongly speak out against Preferred Alternative 7, as this is a form of sector separation. They are still against it and feel the Council is trying to push it into this amendment. For Action 5, they support the preferred alternative. They don't support 30B at all and it should be completely removed, not just for red snapper but also for all reef fish. For Action 6, they prefer Alternative 3, Option b, allowing a 2-year grace period. For Action 7, they support Preferred Alternative 3 for a state that opts out.

Libby Fetherston - Ocean Conservancy

The Ocean Conservancy supports the Council's attempt to consider alternative management for the recreational sector. They do not take positions on allocation decisions. They think data collection and validation is critical to the success of any regional management plan and will need minimum data standards. They encourage the Council to think about ways that the restoration funds could support these goals in terms of quality and quantity of sampling. They also encourage the use of ACTs because they provide a reasonable buffer based on past performance and warrant consideration.

Sharon McBreen - Pew Charitable Trusts

Pew recommends revising the amendment's purpose and need to reflect that rebuilding red snapper is the top priority. They recommend that the amendment include the following three key components needed for the program's success:

1. AMs are safeguards and should include payback provisions, to maintain rebuilding. So they support the preferred alternative in Action 6. They also encourage the states to set up a system to constrain catches to within their quota. They do not oppose the Option a for a 1-year grace period, to allow state programs time to adjust their management process. This will be a learning process between NOAA and the states.
2. The states will need to retool their data collection systems to avoid triggering AMs. States should consider the use of ACTs to build in a margin of error to avoid triggering AMs, especially while adjusting to the new management system. This includes the option to use an ACT.
- 3: They support Action 4's Preferred Alternative 7: establish sub-allocations. If a state chooses that this is right for them, they should be allowed to pursue it.

Stephen Furman - CCA Florida, Tampa chapter

CCA supports regional management. He found the example of regional management for king mackerel an interesting example, because it is a migratory fish, and red snapper is not migratory. We had no red snapper off this coast for a long time but they came back because of Hurricane Katrina. This is a good start but the states would do a good job figuring it out if the feds would step away from the table. The states should have that authority, and the data and law enforcement is available. NOAA is paying FWC for nice boats to patrol offshore and there is no reason to stop that.

APPENDIX D. DELEGATION PROVISION

Magnuson-Stevens Fishery Conservation and Management Act 16 U.S.C. §1856(a)(3), (b)

(3) A State may regulate a fishing vessel outside the boundaries of the State in the following circumstances:

(A) The fishing vessel is registered under the law of that State, and (i) there is no fishery management plan or other applicable Federal fishing regulations for the fishery in which the vessel is operating; or (ii) the State's laws and regulations are consistent with the fishery management plan and applicable Federal fishing regulations for the fishery in which the vessel is operating.

(B) The fishery management plan for the fishery in which the fishing vessel is operating delegates management of the fishery to a State and the State's laws and regulations are consistent with such fishery management plan. If at any time the Secretary determines that a State law or regulation applicable to a fishing vessel under this circumstance is not consistent with the fishery management plan, the Secretary shall promptly notify the State and the appropriate Council of such determination and provide an opportunity for the State to correct any inconsistencies identified in the notification. If, after notice and opportunity for corrective action, the State does not correct the inconsistencies identified by the Secretary, the authority granted to the State under this subparagraph shall not apply until the Secretary and the appropriate Council find that the State has corrected the inconsistencies. For a fishery for which there was a fishery management plan in place on August 1, 1996 that did not delegate management of the fishery to a State as of that date, the authority provided by this subparagraph applies only if the Council approves the delegation of management of the fishery to the State by a three-quarters majority vote of the voting members of the Council.

(C) [Pertains to Alaska, only.]

(b) EXCEPTION.—

(1) If the Secretary finds, after notice and an opportunity for a hearing in accordance with section 554 of title 5, United States Code, that—

(A) the fishing in a fishery, which is covered by a fishery management plan implemented under this Act, is engaged in predominately within the exclusive economic zone and beyond such zone; and

(B) any State has taken any action, or omitted to take any action, the results of which will substantially and adversely affect the carrying out of such fishery management plan; the Secretary shall promptly notify such State and the appropriate Council of such finding and of his intention to regulate the applicable fishery within the boundaries of such State (other than its internal waters), pursuant to such fishery management plan and the regulations promulgated to implement such plan.

(2) If the Secretary, pursuant to this subsection, assumes responsibility for the regulation of any fishery, the State involved may at any time thereafter apply to the Secretary for reinstatement of its authority over such fishery. If the Secretary finds that the reasons for which he assumed such regulation no longer prevail, he shall promptly terminate such regulation.

(3) If the State involved requests that a hearing be held pursuant to paragraph (1), the Secretary shall conduct such hearing prior to taking any action under paragraph (1).

APPENDIX E. FISHERY ALLOCATION POLICY

Gulf of Mexico Fishery Management Council Fishery Allocation Policy

This allocation policy was developed by the Gulf of Mexico Fishery Management Council to provide principles, guidelines, and suggested methods for allocation that would facilitate future allocation and reallocation of fisheries resources between or within fishery sectors.

Issues considered in this allocation policy include principles based on existing regulatory provisions, procedures to request and initiate (re)allocation, (re)allocation review frequency, tools and methods suggested for evaluating alternative (re)allocations.

1. Principles for Allocation

- a. Conservation and management measures shall not discriminate between residents of different states.
- b. Allocation shall:
 - (1) be fair and equitable to fishermen and fishing sectors;
 - (i) fairness should be considered for indirect changes in allocation
 - (ii) any harvest restrictions or recovery benefits be allocated fairly and equitably among sectors
 - (2) promote conservation
 - (i) connected to the achievement of OY
 - (ii) furtherance of a legitimate FMP objective,
 - (iii) promotes a rational, more easily managed use
 - (3) ensure that no particular individual, corporation, or other entity may acquire an excessive share.
- c. Shall consider efficient utilization of fishery resources but:
 - (1) should not just redistribute gains and burdens without an increase in efficiency
 - (2) prohibit measures that have economic allocation as its sole purpose.
- d. Shall take into account: the importance of fishery resources to fishing communities by utilizing economic and social data in order to:
 - (1) provide for the sustained participation of fishing communities
 - (2) minimize adverse economic impacts on fishing communities.

- e. Any fishery management plan, plan amendment, or regulation submitted by the Gulf Council for the red snapper fishery shall contain conservation and management measures that:
 - (1) establish separate quotas for recreational fishing (including charter fishing) and commercial fishing.
 - (2) prohibit a sector (i.e., recreational or commercial) from retaining red snapper for the remainder of the season, when it reaches its quota.
 - (3) ensure that the recreational and commercial quotas reflect allocation among sectors and do not reflect harvests in excess of allocations.

2. Guidelines for Allocation

- a. All allocations and reallocations must be consistent with the Gulf of Mexico Fishery Management Council's principles for allocation.
- b. An approved Council motion constitutes the only appropriate means for requesting the initiation of allocation or reallocation of a fishery resource. The motion should clearly specify the basis for, purpose and objectives of the request for (re)allocation.
- c. The Council should conduct a comprehensive review of allocations within the individual FMPs at intervals of no less than five years.
- d. Following an approved Council motion to initiate an allocation or reallocation, the Council will suggest methods to be used for determining the new allocation. Methods suggested must be consistent with the purpose and objectives included in the motion requesting the initiation of allocation or reallocation.
- e. Changes in allocation of a fishery resource may, to the extent practicable, account for projected future socio-economic and demographic trends that are expected to impact the fishery.
- f. Indirect changes in allocation, i.e., shifts in allocation resulting from management measures, should be avoided or minimized to the extent possible.

3. Suggested Methods for Determining (Re)Allocation

- a. Market-based Allocation
 - (1) Auction of quota
 - (2) Quota purchases between commercial and recreational sectors
 - (i) determine prerequisites and conditions:
 - (a) quota or tags or some other mechanism required in one or both sectors
 - (b) mechanism to broker or bank the purchases and exchanges

- (c) annual, multi-year, or permanent
- (d) accountability for purchased or exchanged quota in the receiving sector

b. Catch-Based (and mortality) Allocation

- (1) historical landings data
 - (i) averages based on longest period of credible records
 - (ii) averages based on a period of recent years
 - (iii) averages based on total fisheries mortality (landings plus discard mortality) by sector
 - (iv) allocations set in a previous FMP
 - (v) accountability (a sector's ability to keep within allocation)

c. Socioeconomic-based Allocation

- (1) socio-economic analyses
 - (i) net benefits to the nation
 - (ii) economic analysis limited to direct participants
 - (iii) economic impact analysis (direct expenditures and multiplier impacts)
 - (iv) social impact analysis
 - (v) fishing communities
 - (vi) participation trends
 - (vii) "efficiency" analysis
 - (a) lowest possible cost for a particular level of catch;
 - (b) harvest OY with the minimum use of economic inputs

d. Negotiation-Based Allocation

- (1) Mechanism for sectors to agree to negotiation and select representatives
- (2) Mechanism to choose a facilitator
- (3) Negotiated agreement brought to Council for normal FMP process of adoption and implementation.

APPENDIX F. RECREATIONAL RED SNAPPER LANDINGS BY STATE

Table F-1. Annual recreational red snapper landings by state (1986-2013), based on whole weight of fish.

Year	Alabama	Florida	Louisiana	Mississippi	Texas	Total
1986	401,123	1,929,702	631,294	3,482	525,242	3,490,843
1987	387,077	912,826	281,413	54,031	454,200	2,089,547
1988	516,328	940,254	1,038,395	21,783	622,380	3,139,140
1989	544,007	362,359	708,400	345,009	980,565	2,940,340
1990	644,860	289,177	274,815	55,440	360,243	1,624,535
1991	877,662	439,237	968,807	179,601	451,819	2,917,126
1992	1,510,823	372,642	1,129,185	764,794	840,845	4,618,289
1993	2,095,900	1,250,350	1,626,283	907,243	1,281,487	7,161,263
1994	1,950,457	846,569	1,284,747	491,146	1,502,841	6,075,760
1995	1,742,758	565,356	1,543,765	156,083	1,455,780	5,463,742
1996	1,752,107	998,533	885,325	212,843	1,490,081	5,338,889
1997	2,660,697	1,007,177	1,145,689	664,884	1,325,782	6,804,229
1998	1,446,734	1,391,640	721,783	189,014	1,104,926	4,854,097
1999	1,975,892	1,422,359	784,324	201,749	588,084	4,972,408
2000	1,405,596	1,701,732	881,480	53,551	707,746	4,750,105
2001	2,221,042	2,095,911	316,993	108,454	509,885	5,252,285
2002	2,620,872	2,528,289	404,563	238,011	743,411	6,535,146
2003	2,315,502	2,213,246	544,732	365,829	666,136	6,105,445
2004	1,937,219	3,484,522	376,281	25,571	636,651	6,460,244
2005	1,361,826	2,242,440	484,250	5,222	582,181	4,675,919
2006	826,956	2,106,536	504,844	32,808	659,988	4,131,132
2007	1,134,694	3,295,292	908,429	3,399	466,981	5,808,795
2008	695,131	2,332,926	638,159	39,193	350,466	4,055,875
2009	1,207,914	2,630,439	1,054,595	43,574	660,335	5,596,857
2010	564,655	1,482,108	133,601	10,834	459,653	2,650,851
2011	3,606,453	1,975,772	600,358	69,478	482,046	6,734,107
2012	2,701,304	2,445,940	1,446,107	314,154	616,737	7,524,242
2013	4,424,247	3,777,371	545,532	422,529	489,112	9,658,791
2014	1,158,780	1,644,842	632,095	45,118	385,696	3,866,531

Source: Southeast Fisheries Science Center annual catch limit dataset, including the Calibrated Marine Recreational Information Program (MRIP) landings, Texas Parks and Wildlife Department, and Southeast Headboat Survey landings. Headboat landings from Alabama and the Florida Panhandle are initially reported to the same headboat fishing area. Landings have been assigned to each state based on the survey's vessel landing records (May 2015).

APPENDIX G. GULF OF MEXICO RED SNAPPER FEDERAL REGULATIONS RELEVANT TO REEF FISH AMENDMENT 39

Current as published in the Federal Register as of **May 5, 2015** (Regulations in §§ 622.39 and 622.41 effective as of **June 1, 2015**)

§ 622.20 Permits and endorsements.

(b)(3) If Federal regulations for Gulf reef fish in subparts A or B of this part are more restrictive than state regulations, a person aboard a charter vessel or headboat for which a charter vessel/headboat permit for Gulf reef fish has been issued must comply with such Federal regulations regardless of where the fish are harvested.

§ 622.34 Seasonal and area closures designed to protect Gulf reef fish.

(b) *Seasonal closure of the recreational sector for red snapper.* The recreational sector for red snapper in or from the Gulf EEZ is closed from January 1 through May 31, each year. During the closure, the bag and possession limit for red snapper in or from the Gulf EEZ is zero.

§ 622.37 Size limits.

(a) *Snapper--(1) Red snapper--*16 inches (40.6 cm), TL, for a fish taken by a person subject to the bag limit specified in § 622.38 (b)(3) and 13 inches (33.0 cm), TL, for a fish taken by a person not subject to the bag limit.

§ 622.38 Bag and possession limits.

(b)(3) *Red snapper--2.* However, no red snapper may be retained by the captain or crew of a vessel operating as a charter vessel or headboat. The bag limit for such captain and crew is zero.

§ 622.39 Quotas.

(a)(2)(i) *Recreational quota for red snapper. (A) Total recreational quota (Federal charter vessel/headboat and private angling component quotas combined).*

(1) For fishing year 2015--7.007 million lb (3.178 million kg), round weight.

(2) For fishing year 2016--6.840 million lb (3.103 million kg), round weight.

(3) For fishing year 2017 and subsequent fishing years--6.733 million lb (3.054 million kg), round weight.

(B) *Federal charter vessel/headboat component quota.* The Federal charter vessel/headboat component quota applies to vessels that have been issued a valid Federal charter vessel/headboat permit for Gulf reef fish any time during the fishing year. This component quota is effective for only the 2015, 2016, and 2017 fishing years. For the 2018 and subsequent fishing years, the applicable total recreational quota specified in § 622.39(a)(2)(i)(A) will apply to the recreational sector.

(1) For fishing year 2015--2.964 million lb (1.344 million kg), round weight.

(2) For fishing year 2016--2.893 million lb (1.312 million kg), round weight.

(3) For fishing year 2017--2.848 million lb (1.292 million kg), round weight.

(C) *Private angling component quota.* The private angling component quota applies to vessels that fish under the bag limit and have not been issued a Federal charter vessel/headboat permit for Gulf reef fish any time during the fishing year. This component quota is effective for only the 2015, 2016, and 2017 fishing years. For the 2018 and subsequent fishing years, the applicable total recreational quota specified in § 622.39(a)(2)(i)(A) will apply to the recreational sector.

(1) For fishing year 2015--4.043 million lb (1.834 million kg), round weight.

(2) For fishing year 2016--3.947 million lb (1.790 million kg), round weight.

(3) For fishing year 2017--3.885 million lb (1.762 million kg), round weight.

§ 622.41 Annual catch limits (ACLs), annual catch targets (ACTs), and accountability measures (AMs).

(q)(2) *Recreational sector.* (i) The AA will determine the length of the red snapper recreational fishing season based on when recreational landings are projected to reach the applicable recreational ACT specified in paragraph (q)(2)(iii) of this section, and announce the closure date in the *Federal Register*. This will serve as an in-season accountability measure. On and after the effective date of the recreational closure notification, the bag and possession limit for red snapper is zero. The recreational ACL is equal to the applicable total recreational quota specified in § 622.39(a)(2)(i).

(ii) In addition to the measures specified in paragraph (q)(2)(i) of this section, if red snapper recreational landings, as estimated by the SRD, exceed the applicable recreational ACL (quota) specified in § 622.39(a)(2)(i), and red snapper are overfished, based on the most recent Status of U.S. Fisheries Report to Congress, the AA will file a notification with the Office of the Federal Register to reduce the recreational ACL (quota) by the amount of the quota overage in the prior fishing year, and reduce the applicable recreational ACT specified in paragraph (q)(2)(iii) of this section (based on the buffer between the ACT and the quota specified in the FMP), unless the best scientific information available determines that a greater, lesser, or no overage adjustment is necessary.

(iii) *Recreational ACT for red snapper.* (A) *Total recreational ACT (Federal charter vessel/headboat and private angling component ACTs combined).*

(1) For fishing year 2015--5.606 million lb (2.543 million kg), round weight.

(2) For fishing year 2016--5.472 million lb (2.482 million kg), round weight.

(3) For fishing year 2017 and subsequent fishing years--5.384 million lb (2.442 million kg), round weight.

(B) *Federal charter vessel/headboat component ACT.* The Federal charter vessel/headboat component ACT applies to vessels that have been issued a valid Federal charter vessel/headboat permit for Gulf reef fish any time during the fishing year. This component ACT is effective for only the 2015, 2016, and 2017 fishing years. For the 2018 and subsequent fishing years, the applicable total recreational quota specified in § 622.39(a)(2)(i)(A) will apply to the recreational sector.

(1) For fishing year 2015--2.371 million lb (1.075 million kg), round weight.

(2) For fishing year 2016--2.315 million lb (1.050 million kg), round weight.

(3) For fishing year 2017--2.278 million lb (1.033 million kg), round weight.

(C) *Private angling component ACT.* The private angling component ACT applies to vessels that fish under the bag limit and have not been issued a Federal charter vessel/headboat permit for Gulf reef fish any time during the fishing year. This component ACT is effective for

only the 2015, 2016, and 2017 fishing years. For the 2018 and subsequent fishing years, the applicable total recreational quota specified in § 622.39(a)(2)(i)(A) will apply to the recreational sector.

- (1) For fishing year 2015--3.234 million lb (1.467 million kg), round weight.
- (2) For fishing year 2016--3.158 million lb (1.432 million kg), round weight.
- (3) For fishing year 2017--3.108 million lb (1.410 million kg), round weight.

APPENDIX H. BYCATCH PRACTICABILITY ANALYSIS

Introduction

Bycatch is defined as fish harvested in a fishery, but not sold or retained for personal use. This definition includes both economic and regulatory discards, and excludes fish released alive under a recreational catch-and-release fishery management program. Economic discards are generally undesirable from a market perspective because of their species, size, sex, and/or other characteristics. Regulatory discards are fish required by regulation to be discarded, but also include fish that may be retained but not sold.

Agency guidance provided at 50 CFR 600.350(d)(3) identifies ten factors to consider in determining whether a management measure minimizes bycatch or bycatch mortality to the extent practicable. These are:

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

The Regional Fishery Management Councils are encouraged to adhere to the precautionary approach outlined in Article 6.5 of the Food and Agriculture Organization of the United Nations Code of Conduct for Responsible Fisheries when uncertain about these factors.

Bycatch practicability analyses of the reef fish fishery have been provided in several reef fish amendments and focused to some degree on the component of the fishery affected by the actions covered in the amendment. For red snapper, bycatch practicability analyses were completed for Amendments 22, 27, and 40 to the Fishery Management Plan (FMP) for the Reef Fish Resources of the Gulf of Mexico (GMFMC 2004a, 2007, 2014a). Other bycatch practicability analyses were conducted in the following amendments (component of the fishery affected by the actions): Amendment 23 (vermillion snapper; GMFMC 2004b), Amendment 30A (greater amberjack and gray triggerfish; GMFMC 2008a), Amendment 30B (gag, red grouper, and other shallow-water grouper; GMFMC 2008b), Amendment 31 (longline sector; GMFMC 2009), Amendment 32 (gag and red grouper; GMFMC 2011a), Amendment 35 (greater amberjack; GMFMC 2012a); Amendment 37 (gray triggerfish; GMFMC 2012b), and Amendment 38 (shallow-water grouper;

GMFMC 2012c). In addition, a bycatch practicability analysis was conducted for the Generic Annual Catch Limits/Accountability Measures Amendment (GMFMC 2011b) that covered the Reef Fish, Coastal Migratory Pelagics, Red Drum, and Coral FMPs. In general, these analyses found that reducing bycatch provides biological benefits to managed species as well as benefits to the fishery through less waste, higher yields, and less forgone yield. However, in some cases, actions are approved that can increase bycatch through regulatory discards such as increased minimum sizes and closed seasons. In these cases, there is some biological benefit to the managed species that outweighs any increases in discards.

Red Snapper Bycatch

The Gulf of Mexico (Gulf) reef fish fishery directed at red snapper has been regulated to limit harvest in order that the stock can recover from an overfished condition. Regulations for the recreational sector include catch quotas, minimum size limits, bag limits, and seasonal closures. These are used to limit the harvest to levels allowed under the rebuilding plan. For the commercial sector, regulations previously included catch quotas, minimum size limits, seasonal closures, and trip limits. Now the sector is managed under an individual fishing quota (IFQ) program that was established in 2007. The program eliminates the need for seasonal closures and trip limits. Red snapper regulations have been generally effective in limiting fishing mortality, the size of fish targeted, the number of targeted fishing trips, and/or the time fishermen spend pursuing a species. However, these management tools have the unavoidable adverse effect of creating regulatory discards, which makes reducing bycatch challenging, particularly in the recreational sector.

An important aspect to red snapper bycatch is the penaeid shrimp fishery as previously described in Amendment 27/14 (GMFMC 2007). The shrimp fishery catches primarily 0-2 year old red snapper. To reduce red snapper bycatch, the Gulf of Mexico Fishery Management Council (Council) implemented regulations requiring the use of bycatch reduction devices (GMFMC 2002) and setting bycatch reduction targets (currently a 67% reduction from the baseline years 2001-2003; GMFMC 2007). Between the use of bycatch reduction devices and reductions in shrimp effort due to economic factors (Figure 7.1), the target reductions have been met.

Although red snapper bycatch in the shrimp fishery is an important source of mortality for this stock, this bycatch practicability analysis will focus on the directed reef fish fishery managed under the Fishery Management Plan for Reef Fish Resources of the Gulf of Mexico. Bycatch from the shrimp fishery has been and will be analyzed in the Fishery Management Plan for the Shrimp Fishery of the Gulf of Mexico, U.S. Waters.

Figures 7.2 and 7.3 show the relative number of discards for the recreational and commercial sectors as estimated by SEDAR 31 (2013). For the recreational sector, open season discards estimated through the Marine Recreational Information Program (MRIP) (charter and private angler) declined around 2007 as the recreational season got shorter due lower quotas. This trend is also apparent in the headboat data for the western Gulf of Mexico (Gulf). However, with shorter seasons of the past few years, the number of discards during the longer closed seasons increased (Figure 7.2). For the commercial sector, discards in the eastern handline and longline sectors have increased since the implementation of the IFQ program relative to the western Gulf. This may reflect a shift in fishing effort that has resulted in the program. Note that for the

commercial sector, closed season discards after the IFQ program was implemented refers to vessels with little or no red snapper allocation (see SEDAR 31 2013).

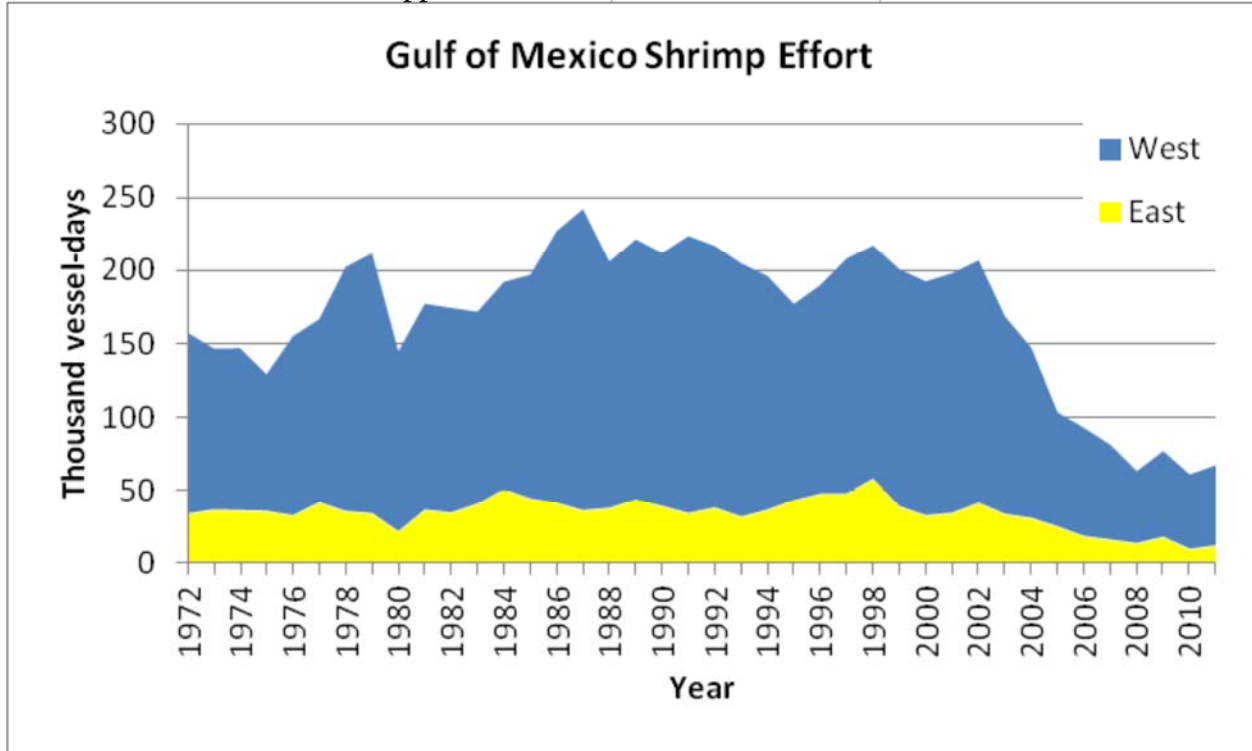


Figure 7.1. Gulf shrimp fishery effort (thousand vessel-days) provided by the National Marine Fisheries Service Galveston Lab. The reported effort does not include the average effort values used to fill empty cells. Source: Linton 2012b.

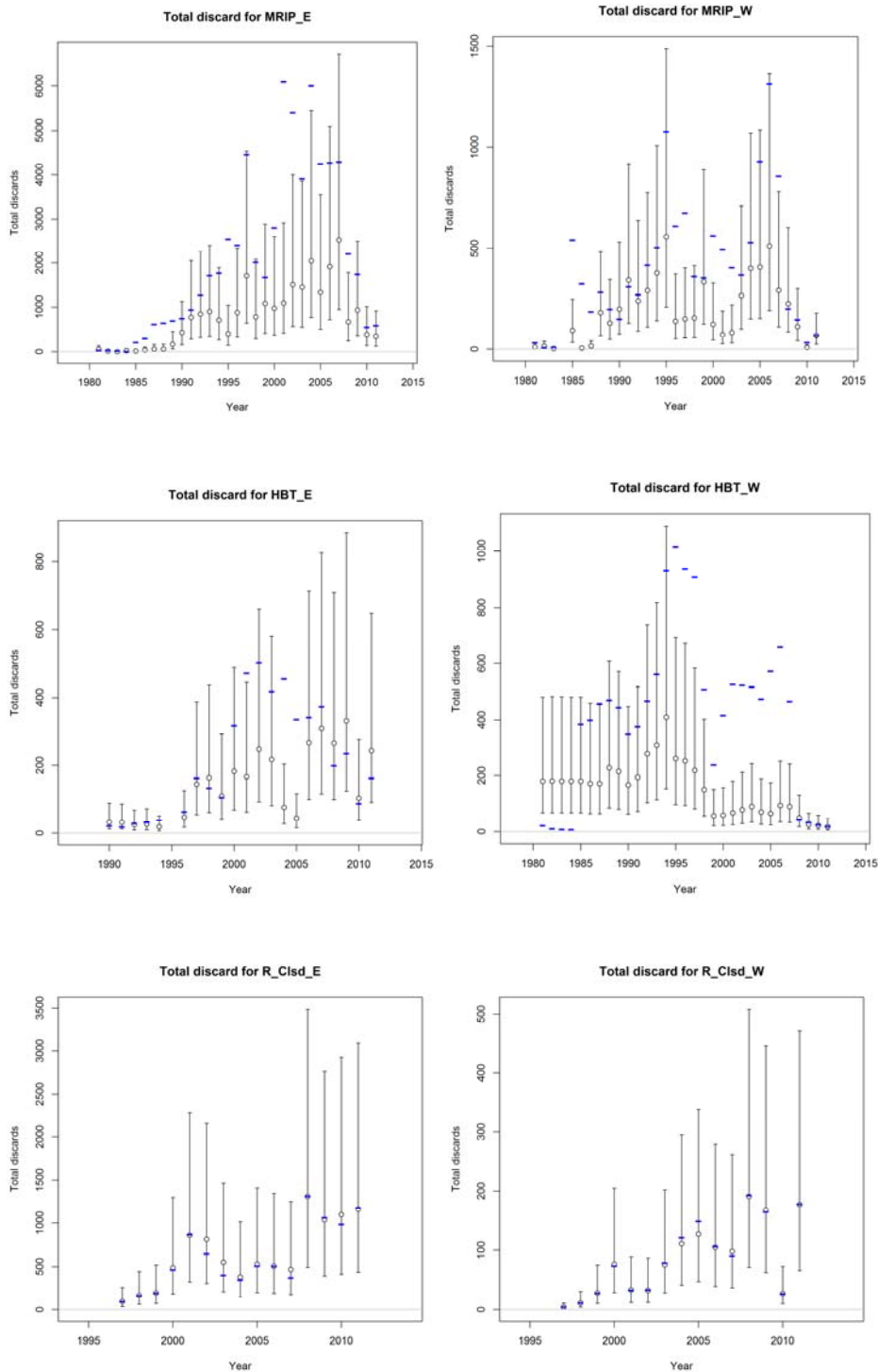


Figure 7.2. Observed (open circles) and predicted total discards (blue dashes) of red snapper from the private angler open season (top), headboat open season (middle), and recreational closed season in the eastern (left) and western (right) Gulf, 1997-2011. Source: SEDAR 31 2013.

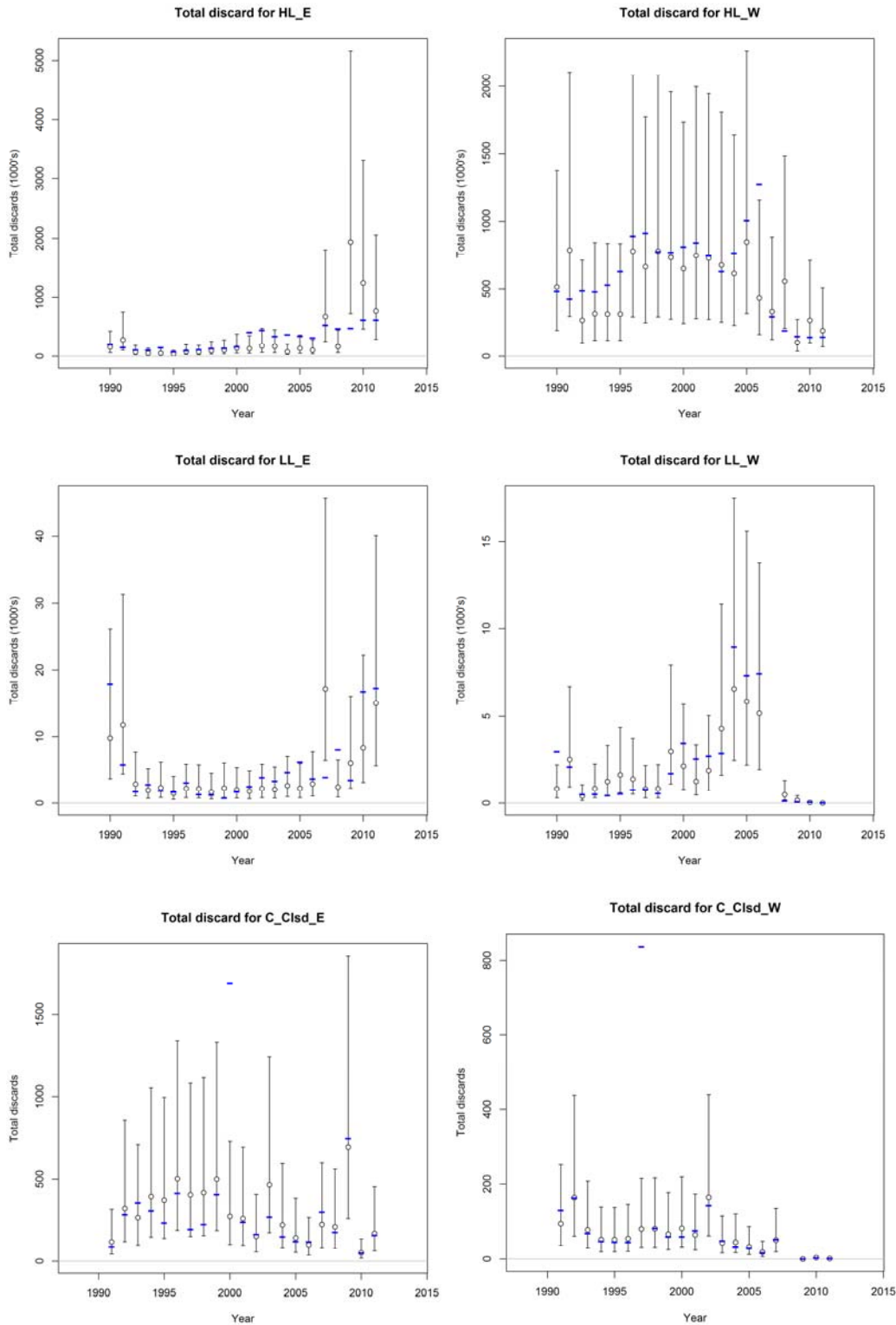


Figure 7.3. Observed (open circles) and predicted total discards (blue dashes) of red snapper from the commercial handline open season (top), longline open season (middle), and commercial closed season in the eastern (left) and western (right) Gulf, 1997-2011. Source: SEDAR 31 2013.

Campbell et al. (2012) identified several causes of red snapper discard mortality in their review of release mortality in the directed reef fish fishery. These included hooking injuries, thermal stress, and barotrauma. Campbell et al. (2012) reviewed 11 studies that listed discard (release) mortality rates ranging from 0 to 79%. They reported that mortality tended to increase with capture depth, increasing water depth, or from some compounding effect of these two factors. Burns et al. (2004) and Burns and Froeschke (2012) examined the feeding behavior of red snapper and found red snapper quickly chew and swallow their prey. As a result, there is less time to set a hook while fishing, resulting in greater probability of hooking related injuries. Burns et al. (2004) concluded hook-related trauma accounted for a greater portion of release mortality than depth, despite catching red snapper at depths ranging from 90 to 140 feet.

Although Campbell et al. (2012) did not specifically address surface interval and predation, these factors were identified in GMFMC (2007) as contributing to release mortality. Burns et al. (2002) found survival of red snapper increased the faster red snapper were returned to the water, thus they considered any reductions in surface interval/handling time an important way to reduce release mortality. Several studies have documented predation on released red snapper. Dolphins and pelicans are the two most commonly observed predators and are known to pursue released fish, as well as fish before they are landed (SEDAR 7 2005). Several studies, which assessed release mortality through surface observations, accounted for predation when estimating release mortality (Patterson et al. 2001; Burns et al. 2004; Wilson et al. 2004).

A variety of release mortality rates have been used in different stock assessment. The 1999 red snapper stock assessment (Schirripa and Legault 1999) assumed release mortality rates of 33 percent for the commercial fishery and 20 percent for the recreational fishery. These release mortality rates were derived from the literature and were determined by the Council’s Reef Fish Stock Assessment Panel to be the best available estimates at the time (RFSAP 1999). During development of the 2005 red snapper stock assessment, the SEDAR 7 data workshop panel (SEDAR 7 2005) reviewed available information on depth of fishing and release mortality by depth to produce fishery specific release mortality rates by region (eastern and western Gulf), season (open and closed), and by sector (commercial and recreational). Estimates of release mortality rates ranged 15% for recreationally caught and released red snapper in the eastern Gulf to 88% for commercially caught and released red snapper in the western Gulf caught during a season closure (Table 7.1).

Table 7.1. Mean/median depth of fishing and corresponding release mortality rates for red snapper by fishery, region, and season.

Fishery	Region	Season	Depth of Capture	Release Mortality
Commercial	East	Open	180 ft (55 m)	71%
	East	Closed	180 ft (55 m)	71%
	West	Open	190 ft (58 m)	82%
	West	Closed	272 ft (83 m)	88%
Recreational	East	Open	65-131 ft (20-40 m)	15%
	East	Closed	65-131 ft (20-40 m)	15%
	West	Open	131 ft (40 m)	40%
	West	Closed	131 ft (40 m)	40%

Source: SEDAR 7 2005.

In the most recent benchmark stock assessment (SEDAR 31, 2013), a meta-analysis was used to estimate red snapper release mortality using the 11 studies reviewed by Campbell et al. (2012). A venting/no venting component was added to account for the requirement to vent reef fish put in place through Amendment 27 (GMFMC 2007) as well as a gear component. For the commercial sector, average depths at which discards occurred for each gear (handline or long line), region (eastern or western Gulf), and season (open or closed) were calculated using commercial observer program data. Consistent with how commercial discards have been treated in other parts of the assessment, discards from trips with IFQ allocation were considered open season discards, while discards from trips with no IFQ allocation were considered closed season discards. For the recreational sector, average depths at which discards occurred for each region (eastern or western Gulf) and season (open or closed) were calculated using self-reported data from the iSnapper program. Estimated release mortality rates ranged from 10 to 95% with commercial release mortality rates greater than recreational release mortality rates (Tables 7.2 and 7.3).

SEDAR 31 (2013) estimated the total number of fish killed (landed and discarded dead) by the commercial and recreational sectors from 1983 to 2011 (Table 7.4). For the recreational sector, the percentage of dead discards to total fish killed has declined since a peak in 2001. However, it was not until 2007 that the number of dead discards was consistently less than the number of landed fish. For the commercial sector, the percentage of dead discards peaked in 2000, but it was not until 2010 that the number of dead discards declined less than 40% of the total fish killed.

Since 1996, more red snapper have been landed in the eastern Gulf than the western Gulf by the recreational sector (Table 7.5). A drop in the percentage of dead discards relative to the total number of fish killed occurred in both regions in 2008. The percentage of dead discards fell from 49.4% to 36.7% between 2007 and 2008 for the eastern Gulf and from 50.0% to 20.3% between 2007 and 2008 in the western Gulf. For the commercial sector, in the eastern Gulf the number of dead discards has generally been above 50% indicating that there are more discards were killed than landed (Table 7.5). In contrast, in the western Gulf there has been a falling off in the percentage of dead discards relative to the total number of killed fish since 2006 to well below 50%.

Table 7.2. Average depths and associated discard mortality rates for commercial discards of red snapper in the Gulf.

Gear	Handline				Longline			
Region	East		West		East		West	
Season	Closed	Open	Closed	Open	Closed	Open	Closed	Open
Average Depth (m)	24	45	84	53	66	62	132	104
Disc Mort - no venting	0.74	0.75	0.87	0.78	0.82	0.81	0.95	0.91
Disc Mort - venting	0.55	0.56	0.74	0.60	0.66	0.64	0.88	0.81

Source: SEDAR 31 2013.

Table 7.3. Average depths and associated discard mortality rates for recreational discards of red snapper in the Gulf.

Gear	Recreational			
Region	East		West	
Season	Open	Closed	Open	Closed
Average Depth (m)	33	34	36	35
Disc Mort - no venting	0.21	0.21	0.22	0.22
Disc Mort - venting	0.10	0.10	0.11	0.10

Source: SEDAR 31 2013.

Table 7.4. Estimates of the total number of red snapper landed, the number of dead discards, and percent dead discards for all killed fish for the recreational and commercial sectors by year in the Gulf.

Year	Recreational			Commercial		
	Landed	Dead Discards	Percent dead discards	Landed	Dead Discard	Percent dead discards
1983	3,314,185	8,599	0.3%	4,559,794	80,758	1.7%
1984	1,232,024	2,699	0.2%	2,775,042	33,579	1.2%
1985	1,427,026	255,716	15.2%	1,234,986	351,105	22.1%
1986	1,265,955	223,079	15.0%	875,494	304,026	25.8%
1987	1,022,844	271,426	21.0%	661,469	277,787	29.6%
1988	1,241,859	302,800	19.6%	950,904	366,876	27.8%
1989	1,060,456	289,201	21.4%	742,388	296,024	28.5%
1990	625,933	270,824	30.2%	703,020	549,250	43.9%
1991	1,060,610	353,327	25.0%	691,943	635,961	47.9%
1992	1,609,040	434,448	21.3%	995,013	817,581	45.1%
1993	2,202,931	581,455	20.9%	1,011,914	781,941	43.6%
1994	1,615,241	695,102	30.1%	869,075	796,390	47.8%
1995	1,384,049	1,008,873	42.2%	698,404	767,187	52.3%
1996	1,180,361	859,431	42.1%	1,011,328	1,120,205	52.6%
1997	1,547,317	1,342,121	46.4%	1,122,447	1,674,115	59.9%
1998	1,235,683	679,689	35.5%	1,167,877	949,481	44.8%
1999	1,031,284	549,708	34.8%	1,190,580	1,063,684	47.2%
2000	1,002,899	985,281	49.6%	1,088,667	2,065,579	65.5%
2001	1,075,115	1,792,155	62.5%	1,030,580	1,214,566	54.1%
2002	1,372,415	1,586,095	53.6%	1,145,169	1,171,069	50.6%
2003	1,224,547	1,204,754	49.6%	1,080,662	996,171	48.0%
2004	1,365,946	1,677,071	55.1%	1,036,860	1,027,510	49.8%
2005	1,024,641	1,433,508	58.3%	973,109	1,170,293	54.6%
2006	1,196,183	1,533,800	56.2%	1,193,134	1,343,644	53.0%
2007	1,397,237	1,370,519	49.5%	851,537	903,242	51.5%
2008	821,804	417,509	33.7%	671,979	481,599	41.7%
2009	979,945	339,988	25.8%	656,148	772,463	54.1%
2010	447,991	170,959	27.6%	833,253	472,930	36.2%
2011	670,910	220,515	24.7%	808,582	533,198	39.7%

Source: Recreational data is from MRIP; headboat and commercial data is from the logbook and SEDAR 31 2013; Jacob Tetzlaff, pers. comm. Southeast Fisheries Science Center, Miami, Florida.

Table 7.5. Estimates of the total number of red snapper landed the number of dead discards, and percent dead discards for all killed fish for the recreational and commercial sectors by year and region of the Gulf.

Year	Recreational						Commercial					
	East			West			East			West		
	Landed	Dead Discard	Percent dead discards	Landed	Dead Discard	Percent dead discards	Landed	Dead Discard	Percent dead discards	Landed	Dead Discard	Percent dead discards
1983	1,055,691	4,455	0.4%	2,258,494	4,144	0.2%	1,851,965	23,983	1.3%	2,707,829	56,775	2.1%
1984	192,098	332	0.2%	1,039,926	2,367	0.2%	1,077,487	5,872	0.5%	1,697,555	27,707	1.6%
1985	482,587	51,497	9.6%	944,439	204,219	17.8%	575,540	109,179	15.9%	659,446	241,926	26.8%
1986	574,495	63,839	10.0%	691,460	159,240	18.7%	237,499	31,193	11.6%	637,996	272,833	30.0%
1987	548,813	129,871	19.1%	474,031	141,555	23.0%	179,088	35,679	16.6%	482,381	242,108	33.4%
1988	524,591	137,182	20.7%	717,268	165,618	18.8%	197,784	72,004	26.7%	753,120	294,872	28.1%
1989	474,670	147,657	23.7%	585,786	141,544	19.5%	166,355	59,518	26.4%	576,033	236,506	29.1%
1990	314,036	161,286	33.9%	311,897	109,538	26.0%	208,799	169,101	44.7%	494,221	380,150	43.5%
1991	548,912	202,238	26.9%	511,698	151,089	22.8%	156,339	187,293	54.5%	535,604	448,669	45.6%
1992	886,594	272,181	23.5%	722,446	162,267	18.3%	155,044	294,315	65.5%	839,969	523,266	38.4%
1993	1,336,961	366,226	21.5%	865,970	215,229	19.9%	160,428	346,349	68.3%	851,486	435,592	33.8%
1994	819,900	379,092	31.6%	795,341	316,010	28.4%	161,842	341,927	67.9%	707,233	454,464	39.1%
1995	664,786	547,997	45.2%	719,263	460,876	39.1%	47,994	234,693	83.0%	650,411	532,493	45.0%
1996	608,817	519,005	46.0%	571,544	340,426	37.3%	66,458	384,466	85.3%	944,870	735,739	43.8%
1997	966,914	992,702	50.7%	580,403	349,419	37.6%	52,616	231,911	81.5%	1,069,832	1,442,204	57.4%
1998	814,811	485,790	37.4%	420,872	193,899	31.5%	112,125	271,377	70.8%	1,055,751	678,104	39.1%
1999	788,097	413,395	34.4%	243,187	136,313	35.9%	148,788	407,417	73.2%	1,041,792	656,267	38.6%
2000	741,378	753,560	50.4%	261,521	231,721	47.0%	169,886	1,375,667	89.0%	918,781	689,912	42.9%
2001	858,210	1,559,948	64.5%	216,905	232,208	51.7%	209,036	487,449	70.0%	821,544	727,118	47.0%
2002	1,137,262	1,374,869	54.7%	235,153	211,226	47.3%	300,706	459,631	60.5%	844,463	711,438	45.7%
2003	956,693	992,640	50.9%	267,854	212,113	44.2%	281,921	459,040	62.0%	798,741	537,130	40.2%
2004	1,128,710	1,429,531	55.9%	237,236	247,540	51.1%	251,425	392,841	61.0%	785,435	634,669	44.7%
2005	759,036	1,071,240	58.5%	265,605	362,268	57.7%	220,412	352,853	61.6%	752,697	817,440	52.1%
2006	839,855	1,076,677	56.2%	356,328	457,123	56.2%	212,766	329,879	60.8%	980,368	1,013,764	50.8%

2007	1,087,060	1,059,975	49.4%	310,177	310,544	50.0%	311,729	626,004	66.8%	539,808	277,238	33.9%
2008	642,570	371,930	36.7%	179,233	45,579	20.3%	284,937	366,341	56.2%	387,042	115,258	22.9%
2009	773,394	303,722	28.2%	206,551	36,266	14.9%	302,568	682,585	69.3%	353,579	89,878	20.3%
2010	360,404	162,119	31.0%	87,587	8,840	9.2%	413,808	384,519	48.2%	419,445	88,411	17.4%
2011	552,878	192,184	25.8%	118,032	28,331	19.4%	423,809	445,771	51.3%	384,773	87,427	18.5%

Source: Recreational data is from MRIP; headboat and commercial data is from the logbook and SEDAR 31 2013; Jacob Tetzlaff, pers. comm. Southeast Fisheries Science Center, Miami, Florida.

Other Bycatch

Species incidentally encountered by the directed red snapper fishery include sea turtles, sea birds, and reef fishes. The primary gears of the Gulf reef fish fishery (longline and vertical line) are classified in the proposed List of Fisheries for 2015 (79 FR 77919) as Category III gear. This classification indicates the annual mortality and serious injury of a marine mammal stock resulting from any fishery is less than or equal to one percent 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.

The most recent biological opinion for the Reef Fish Fishery Management Plan was completed on September 30, 2011 (NMFS 2011a). The opinion determined the continued authorization of the Gulf reef fish fishery managed under this fishery management plan is not likely to adversely affect Endangered Species Act-listed marine mammals or coral, and would not likely jeopardize the continued existence of sea turtles (loggerhead, Kemp's ridley, green, hawksbill, and leatherback), or smalltooth sawfish. However, in the past, actions have been taken by the Council and NMFS to increase the survival of incidentally caught sea turtle and smalltooth sawfish by the commercial and recreational sectors of the fishery. These include the requirements for permitted vessels to carry specific gear and protocols for the safe release in incidentally caught endangered sea turtle species and smalltooth sawfish (GMFMC 2005) as well as restrictions on the longline portion of the commercial sector. Restrictions for longlines in the reef fish fishery include a season-area closure, an endorsement to use longline gear, and a restriction on the total number of hooks that can be carried on a vessel (GMFMC 2009).

Three primary orders of seabirds are represented in the Gulf, Procellariiformes (petrels, albatrosses, and shearwaters), Pelecaniformes (pelicans, gannets and boobies, cormorants, tropic birds, and frigate birds), and Charadriiformes (phalaropes, gulls, terns, noddies, and skimmers) (Clapp et al., 1982; Harrison, 1983) and several species, including: piping plover, least tern, roseate tern, bald eagle, and brown pelican (the brown pelican is endangered in Mississippi and Louisiana and delisted in Florida and Alabama) are listed by the U.S. Fish and Wildlife Service as either endangered or threatened. Human disturbance of nesting colonies and mortalities from birds being caught on fishhooks and subsequently entangled in monofilament line are primary factors affecting sea birds. Oil or chemical spills, erosion, plant succession, hurricanes, storms, heavy tick infestations, and unpredictable food availability are other threats. There is no evidence that the directed red snapper fishery is adversely affecting seabirds. However, interactions, especially with brown pelicans consuming red snapper discards and fish before they are landed, are known to occur (SEDAR 7 2005).

Other species of reef fish are also incidentally caught when targeting red snapper. In the western Gulf, vermilion snapper and some deep-water groupers are incidentally caught as bycatch when harvesting red snapper. In the eastern Gulf, various species of shallow-water grouper and vermilion snapper are the primary species caught as bycatch when targeting red snapper. Vermilion snapper are not overfished or undergoing overfishing (SEDAR 9 Update 2011a) and bycatch is not expected to jeopardize the status of this stock. Deep-water groupers are caught both in the eastern and western Gulf primarily with longline gear (> 80 percent). The deep-water grouper fishery was managed with a 1.02 million pound quota. From 2004 until the

implementation of the grouper/tilefish IFQ program in 2010 (SERO 2012a), the fishery met their quota and closed no later than July 15 each year. Deep-water grouper closures during this time period may have resulted in some additional discards of grouper by longliners targeting red snapper. Since the IFQ program was implemented, deep-water grouper species are landed year-round by holders of IFQ allocation and the quota has not been exceeded. Longliners account for approximately 5% of the annual commercial red snapper landings since 2000 (SEDAR 31 2013). It is unknown how increases in closed season discards might have affected the status of deep-water grouper stocks or the change to an IFQ managed sector. An updated assessment for yellowedge grouper found the stock was not overfished or undergoing overfishing (SEDAR 22 2011a).

Red grouper and gag are the two most abundant shallow-water grouper species in the Gulf and primarily occur on the west Florida shelf. Gag was recently assessed (SEDAR 10 Update 2009) and determined to be overfished and undergoing overfishing. A rebuilding plan that takes into account gag dead discards was implemented through Amendment 32 (GMFMC 2011c). Red grouper were found not to be in an overfished condition and not undergoing overfishing (SEDAR 12 Update 2009). Within the reef fish fishery, discards represent a large and significant portion of mortality for gag and red grouper. In the past, these species were managed under a shallow-water grouper quota which was met prior to the end of the 2004 and 2005 fishing years. For the recreational sector, shallow-water grouper including gag and red grouper are managed with size limits, bag limits, and season and area closures. The recreational gag season begins July 1 and extends until the catch target is projected to be caught. Since 2010, the commercial harvest of gag, red grouper, and other shallow-water grouper are managed under an IFQ program and the commercial sector has not exceeded its quota under the program. Prior to the IFQ program, quota closures at the end of the year have likely resulted in some additional commercial discards when the red snapper fishery is open. However, most commercial landings of red snapper occur in the western Gulf where gag and red grouper are less abundant or infrequently caught.

Practicability of current management measures in the directed red snapper fishery relative to their impact on bycatch and bycatch mortality.

The bycatch practicability analysis in Amendment 27 (GMFMC 2007) indicated directed fishery bycatch was believed to have a greater effect on red snapper stock recovery than the shrimp fishery. Although shrimp bycatch still accounts for a majority of bycatch, bycatch from the directed fishery is now known to have a greater effect on stock recovery. A quota, 16-inch total length (TL) minimum size limit, 2-fish bag limit, closed season, and gear restrictions are presently used to manage the recreational fishery. The commercial fishery is managed with an IFQ program, a quota, a 13-inch TL minimum size limit, and gear restrictions. Prior to 2007 when the red snapper IFQ program was implemented, the commercial fishery was also managed with closed seasons and trip limits. The following discusses current and historic management measures with respect to their relative impacts on bycatch with particular reference to specific management measures considered in Action 4 - Regional Management Measures.

Closed Seasons

Prior to 1997, the recreational sector was able to fish for red snapper year round. To prevent the recreational quota from being exceeded, recreational fishing for red snapper was closed on November 27, 1997, September 30, 1998, and August 29, 1999. In 2000, an April 21 through October 31 red snapper season was established. This was modified to a June 1 through October 31 season in 2008 by Amendment 27 (GMFMC 2007). Currently, the recreational directed red snapper fishery is closed in the exclusive economic zone from January 1 through May 31 each year through a 2012 framework action. However, since 2008, the sector has been closed early when the quota is projected to be caught. In addition, since 2008, the length of time red snapper fishing has been open has become increasingly shorter such that for 2011, 2012, and 2013, the season length has shrunk to 48, 46, and 42 days, respectively. With these shorter seasons, the number of released fish has decreased during the open season, but the number of releases during the closed season has increased (Figure 2; SEDAR 31 2013). Reflected in this trend is that although the estimated number of dead discards has decreased during the fishing season, the number of dead discards has increased during the longer closed periods (Figure 4). For 2014, the season length was decreased to 9 days. This was in response to a decision by the U.S. District Court for the District of Columbia (Court) in *Guindon v. Pritzker*, 2014 WL 1274076 (D.D.C. Mar. 26, 2014). NMFS, at the request of the Council, took emergency action to implement an in-season accountability measure for the recreational harvest of red snapper in the Gulf. The action set an annual catch target (ACT) equal to 80% of the 5.390 mp quota (ACT = 4.312 mp). The resultant 9-day season was based on the ACT and has only a 15% probability of exceeding the quota.

With the implementation of the IFQ program, there is no closed season for the commercial sector. However, commercial vessels with little or no red snapper allocation cannot land red snapper on most or all their trips. Thus, they effectively operate under closed season conditions. SERO (2013b) indicated most discards were likely due to insufficient allocation, rather than the minimum size limit, especially in the longline fleet. Most of these discards were recorded as released alive.

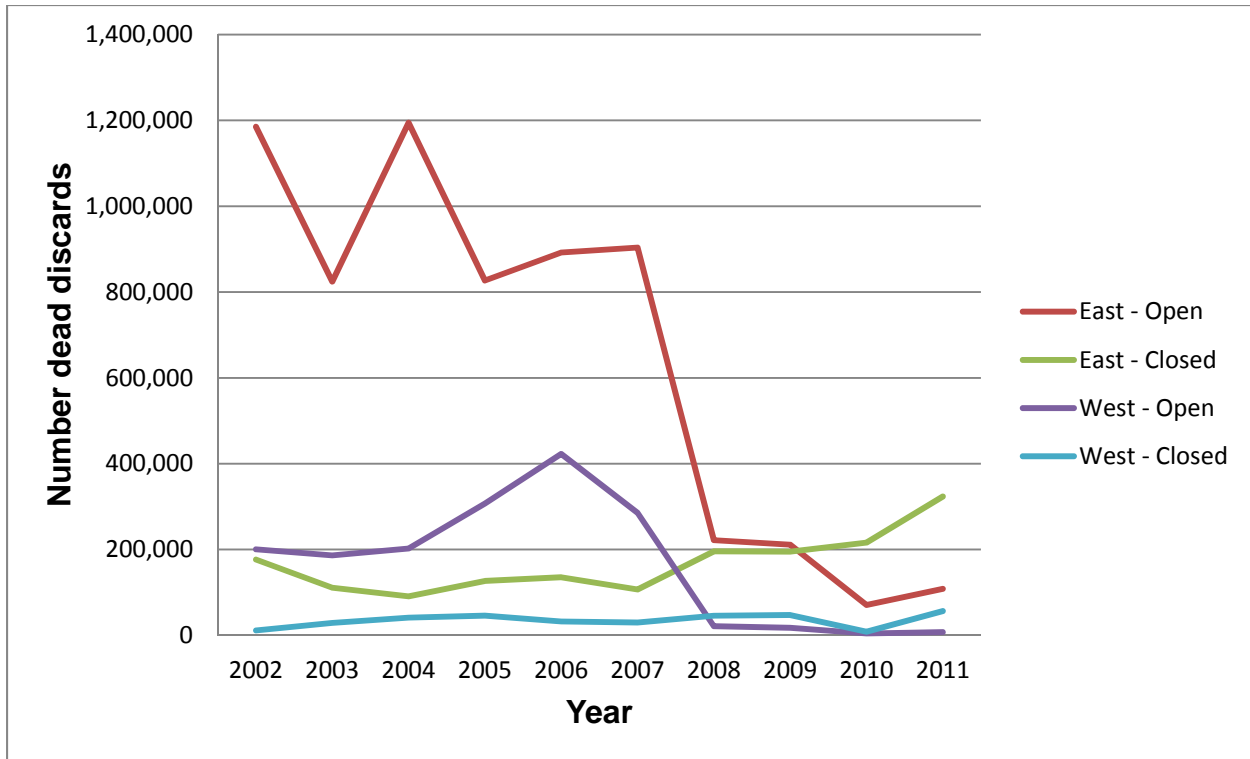


Figure 7.4. The number of Gulf red snapper dead discards from the recreational sector by year and by area. Source: Jakob Tetzlaff., pers. comm. Southeast Fisheries Science Center, Miami, Florida.

Bag Limits

The recreational fishery is regulated by a 2-red snapper daily bag limit per person. Red snapper discards while harvesting the daily bag limit are a result of incidental capture of undersized fish prior to reaching the bag limit and targeting of other reef fish residing in similar habitat as red snapper after bag limits have been reached. SERO (2012c) reported for-hire anglers, on average, landed 1.23 red snapper per trip and private anglers landed 1.58 red snapper per trip when the season is open. Based on average catch rates, the current two red snapper bag limit is not a limiting factor for many trips. Therefore, the release of undersized fish while harvesting the bag limit is still an important factor contributing to discards in addition to the release of legal-sized red snapper after the bag limit is reached.

Size limits

The 16-inch recreational and 13-inch commercial TL minimum size limits are important factors when considering bycatch in the directed fishery. Size limits are intended to protect immature fish and reduce fishing mortality. The recreational minimum size limit is above the size at 50% maturity and the commercial size limit is near the size at 50% maturity. Size-at-maturity varies by region, with 75% of eastern Gulf female red snapper mature by 12 inches TL and 50% of western Gulf red snapper mature by 13-14 inches TL (Fitzhugh et al. 2004).

Several yield-per-recruit (YPR) analyses have previously been conducted to identify the size that balances the benefits of harvesting fish at larger sizes against losses due to natural mortality. Goodyear (1995) concluded YPR was maximized in the red snapper fishery between 18 and 21 inches TL, assuming 20 and 33% release mortality in the recreational and commercial red snapper fisheries, respectively. A subsequent yield per recruit (YPR) analysis by Schirripa and Legault (1997) indicated increasing the minimum size limit above 15 inches TL would result in no gains in yield. Analyses of minimum size limits run for Amendment 27 (GMFMC 2007) indicated red snapper projected recovery rates are slightly faster if the commercial minimum size limit is reduced or eliminated, but increasingly slowed by smaller recreational minimum size limits (Porch 2005). Decreasing the recreational and commercial minimum size limits was projected to increase stock recovery slightly over the short term, but stock recovery would be increasingly slowed if the recreational size limit were lowered over the long term (Porch 2005). However, as discussed in Amendment 27, changes in spawning potential and the rate of stock recovery were found to be negligible for recreational size limits ranging from 13 to 15 inches TL. An YPR analysis conducted by SERO (2006), using current fishery selectivities and release mortality rates from SEDAR 7 (2005) supported Porch's (2005) findings. SERO (2006) examined four commercial minimum size limits (12, 13, 14, and 15 inches TL) and five recreational minimum size limits (6, 13, 14, 15, and 16 inches TL). Based on the range of size limits analyzed, YPR was maximized at 16 inches TL in both the eastern and western Gulf recreational fisheries, 12-inches TL in the western Gulf commercial fishery, and 15-inches TL in the eastern Gulf commercial fishery. However, there was virtually no difference in maximum YPR (< 0.3 percent) for any of the eastern Gulf commercial size limits analyzed. In a study by Wilson et al. (2004) aboard commercial vessels using bandit rigs, 61% of red snapper released were greater than 13 inches and 86% were greater than 12 inches.

For this amendment, an YPR analysis was applied to the recreational sector (SERO 2013). This analysis indicates the Gulf-wide YPR is maximized at a recreational size limit of 15 inches TL. However, there was not much of a change in YPR between lengths of 13 and 18 inches TL. Thus, if the minimum size limit were changed from 16 to 15 inches TL, any gain in YPR would be minimal. SERO (2013) also showed that any increase in the minimum size limit would reduce the number of fish landed. This would probably result in more regulatory discards and an increase in the number of dead discards.

Given the above discussion, a larger recreational minimum size limit is considered to be more effective than a similar sized commercial minimum size limit because of lower release mortality rates in the recreational fishery (Tables 7.2 and 7.3). High release mortality rates in the commercial fishery provide little, if any, protection to the stock because the released fish mostly die rather than contribute to filling the quota. In contrast, the current 16-inch TL minimum recreational size limit was found to afford some protection to the stock, because a greater percentage of discarded fish will survive to spawn and later contribute to the quota as larger animals.

Area closures

Although the Council has not developed area closures specifically for red snapper, the Council has created areas to protect other species. For example, two restricted fishing areas were

developed to specifically protect spawning aggregations of gag in 2000 (GMFMC 1999). The Madison-Swanson and Steamboat Lumps marine restricted fishing areas are located in the northeastern Gulf at a depth of 40 to 60 fathoms. Both areas prohibit bottom fishing. Bottom fishing is also prohibited in the Tortugas North and South marine reserves in the southern Gulf near the Dry Tortugas. Marine reserves and time/area closures benefit fish residing within reserve boundaries by prohibiting their capture during part or all of the year. Within marine reserves, fish that are undersized potentially have an opportunity to grow to legal size and are no longer caught as bycatch. If these fish emigrate from the marine reserve (i.e., spillover effect), then they may be caught as legal fish outside the reserve, thereby reducing bycatch. However, anglers and commercial fishermen may redistribute their effort to areas surrounding the area closure. If fishing pressure in these areas is increased, then any benefits of reduced bycatch of fish in the marine reserve will likely be offset by increases in bycatch of fish residing outside the marine reserve. Within restricted fishing areas or time/area closures, fishing is allowed under restrictions that are intended to protect certain components of the populations within the area (e.g., prohibitions on bottom fishing gear), or to protect populations during a critical phase of their life history, such as during spawning.

The Council did develop a season area closure to reduce bycatch of sea turtles for the longline component of the commercial sector. The use of longlines had been prohibited from waters less than 20 fathoms east of Cape San Blas, Florida, and 50 fathoms west of Cape San Blas; however, due to higher estimates of sea turtles caught in longline gear, measures were put in place through Amendment 31 (GMFMC 2009) to reduce this bycatch. One of these measures was the prohibition of the use of bottom longline gear in the Gulf reef fish fishery, shoreward of a line approximating the 35-fathom contour east of Cape San Blas, Florida from June through August. Most sea turtle takes by longline occur during the summer months.

Allowable gear

Vertical hook-and-line gear (bandit rigs, manual handlines) is the primary gear used in the commercial fishery fishing for red snapper (> 96% of annual landings). Longlines, spears, and fish traps account for a small portion of the commercial harvest (< 5%). Longlines account for only a small fraction of red snapper dead discards as most of the landings come from handline-caught fish (Table 6). In addition, longlines are fished in deeper water, particularly in the west, and select for larger, legal-sized red snapper. Longline vessels east of Cape San Blas, Florida are also restricted to carrying 1,000 hooks onboard (only 750 rigged for fishing at any given time) as part of a suite of measures put in place through Amendment 31 (GMFMC 2009) to reduce sea turtle bycatch.

Rod-and-reel is the primary gear used in the recreational fishery. Recreational anglers also use spears to capture red snapper. Spearfishing does not affect discard mortality since all fish caught are killed. Only undersized red snapper mistakenly killed while spearfishing would contribute to discard mortality. During the red snapper recreational fishing season, discards are primarily due to the recreational size limit; however, allowable gears can affect discard mortality rates.

Fishermen in both the commercial and recreational sectors are required to use non-stainless steel circle hooks, if using natural baits, to reduce discard mortality. The size of circle hooks used in

the fishery varies by manufacturer, gear type, and species targeted (i.e., if targeting vermilion snapper, smaller circle hooks may be used). Although circle hooks may not work as well to reduce red snapper discard mortality, they are effective in reducing mortality in other species such as red grouper (Burns and Froeschke 2012).

In addition to the circle hook requirement, Amendment 27 (GMFMC 2007) also put in place requirements for both commercial and recreational fishermen in the reef fish fishery to carry onboard dehooking devices. These gears are all intended to reduce bycatch and discard mortality. A dehooking device is a tool intended to remove a hook embedded in a fish. It reduces the handling time releasing a fish from a hook and allows a fish to be released with minimum damage.

IFQ program

The commercial sector was previously regulated by 2,000-lb and 200-lb trip limits. With the establishment of the red snapper IFQ program, red snapper discards after a trip limit was reached are no longer a factor. However, reef fish observer data since the IFQ program was implemented indicate a large proportion of legal-sized red snapper continue to be discarded by both the handline and longline fleets (GMFMC 2013). Discard rates do vary by gear. In 2011, 3.5 red snapper were landed for every fish released in the vertical line fleet compared to a 0.5 red snapper landed for each fish released in the longline fleet (SERO 2012b). Discard rates greatly varied by region. In 2011, 87% of observed red snapper caught in the Florida Panhandle were landed, compared to 79% off Louisiana and Texas, and 47% off the Florida Peninsula. There was also a noticeable difference in the size of red snapper caught, with red snapper along the Florida Peninsula (mostly 19-24-inches TL) generally larger than fish caught in other areas of the Gulf (mostly 15-21-inches TL). Most discards were estimated to be released alive, regardless of gear type used. Discards were likely due to insufficient allocation, rather than the minimum size limit, especially in the longline fleet. In a study by Wilson et al. (2004) aboard commercial vessels using bandit rigs, 61% of red snapper released were greater than 13-inches TL, the minimum size limit.

Table 6. Commercial red snapper landings and dead discards in the Gulf by year and area.

Year	Eastern Gulf				Western Gulf			
	Landings		Dead discards		Landings		Dead discards	
	Handline	Longline	Handline	Longline	Handline	Longline	Handline	Longline
1983	1,646,550	205,415	1,587	1,237	2,698,740	9,089	56,690	85
1984	949,341	128,146	309	388	1,625,800	71,755	27,160	547
1985	550,063	25,477	79,906	2,239	608,624	50,822	233,753	8,173
1986	222,738	14,761	21,314	646	564,277	73,719	261,093	11,740
1987	168,788	10,300	20,091	743	412,668	69,713	229,400	12,708
1988	186,924	10,860	51,433	738	686,680	66,440	285,429	9,443
1989	156,071	10,284	32,961	1,714	531,066	44,967	230,318	6,188
1990	198,778	10,021	94,242	4,552	482,224	11,997	377,444	2,706
1991	152,971	3,368	79,800	1,647	527,667	7,937	332,927	1,905
1992	153,940	1,104	54,930	484	837,699	2,270	380,571	460
1993	157,367	3,061	57,447	843	849,065	2,421	375,085	471
1994	160,369	1,473	87,448	568	705,354	1,879	412,546	407
1995	46,528	1,466	54,453	658	648,399	2,012	491,941	501
1996	65,129	1,329	62,736	925	941,768	3,102	695,812	699
1997	51,767	849	79,005	515	1,066,360	3,472	713,290	729
1998	111,068	1,057	99,004	494	1,052,750	3,001	605,570	522
1999	147,499	1,289	102,825	340	1,032,070	9,722	602,380	1,564
2000	168,301	1,585	107,368	556	899,899	18,882	634,841	3,146
2001	207,257	1,779	278,236	894	809,218	12,326	658,252	2,334
2002	297,471	3,235	319,910	1,555	830,146	14,317	584,024	2,481
2003	279,295	2,626	235,502	1,190	782,006	16,735	492,094	2,618
2004	247,833	3,592	251,909	1,633	741,737	43,698	598,933	8,157
2005	216,596	3,816	230,654	2,081	725,819	26,878	785,721	6,686
2006	209,704	3,062	221,631	1,394	955,637	24,731	992,193	6,781
2007	308,237	3,492	949,770	14,520	521,931	17,877	231,164	443
2008	277,716	7,221	660,738	24,096	381,349	5,693	115,150	108
2009	299,480	3,088	748,261	10,548	347,913	5,666	89,641	68
2010	398,806	15,002	1,111,727	53,620	415,081	4,364	85,851	56
2011	408,346	15,463	1,274,735	60,252	382,630	2,143	86,460	18

Source: SEDAR 31 2013; Jacob Tetzlaff, pers. comm. Southeast Fisheries Science Center, Miami, Florida)

Alternatives being considered and bycatch minimization

The actions in this amendment can indirectly affect bycatch in the Gulf reef fish fishery. These actions are administrative and would develop regional management for red snapper recreational fishing. Action 1 would give states or regions the ability to establish what types of measures could be used in regional management to constrain the recreational harvest to a region's allocation. Action 4 would evaluate different federal minimum size limits that would act as a default rather than the current 16-inch minimum size limit. Depending on how these measures are applied, as discussed above, they could either reduce or increase bycatch in the reef fish fishery. The impacts of changing these measures from status quo will need to be evaluated if changed.

Practicability Analysis

Criterion 1: Population effects for the bycatch species

This action establishes a red snapper regional management system for the recreational sector and so does not directly affect bycatch minimization. However, management measures that result from regional management are expected to affect bycatch. These include regional changes to fishing seasons, bag limits, size limits, and area closures. Longer fishing seasons, higher bag limits, smaller minimum size limits, and larger area closures can all minimize bycatch. However, constraining the harvest to a certain regional quota (allocation) could result in measures that work against each other in terms of reducing bycatch (e.g., a higher bag limit would require a shorter fishing season). Therefore, it is difficult to predict how regional management would affect bycatch.

As described above, the Council and NMFS have developed a variety of management measures to reduce red snapper bycatch and these measures are thought to benefit the status of the stock. These include bycatch reduction devices and effort targets in the shrimp fishery, size limit reductions and the IFQ program for the commercial sector, and gear requirements, such as dehooking devices and the use of circle hooks by the reef fish fishery. In addition, any increases in bycatch resulting from proposed management actions are accounted for when reducing directed fishing mortality. Any reductions in bycatch not achieved must be accounted for when setting the annual catch limits; the less bycatch is reduced, the more the annual catch limits must be reduced.

Criterion 2: Ecological effects due to changes in the bycatch of red snapper (effects on other species in the ecosystem)

The relationships among species in marine ecosystems are complex and poorly understood, making the nature and magnitude of ecological effects difficult to predict with any accuracy. The most recent red snapper stock assessment (SEDAR 31 2013) indicated the stock is rebuilding. Consequently, it is possible that forage species and competitor species could decrease in abundance in response to an increase in red snapper abundance. Changes in the bycatch of red snapper are not expected to directly affect other species in the ecosystem. Although birds,

dolphins, and other predators may feed on red snapper discards, there is no evidence that any of these species rely on red snapper discards for food.

Criterion 3: Changes in the bycatch of other species of fish and invertebrates and the resulting population and ecosystem effects

Population and ecosystem effects resulting from changes in the bycatch of other species of fish and invertebrates are difficult to predict. As discussed in Amendment 27 (GMFMC 2007), groupers, snappers, greater amberjack, gray triggerfish and other reef fishes are commonly caught in association with red snapper. Many of these species are in rebuilding plans (gag, gray triggerfish, and greater amberjack) with the stocks improving. Regulatory discards significantly contribute to fishing mortality for all of these reef fish species, with the exceptions of gray triggerfish and vermilion snapper.

No measures are proposed in this amendment to directly reduce the bycatch of other reef fish species. Bycatch minimization measures implemented through Amendment 18A, Amendment 27, and Amendment 31 are expected to benefit reef fish stocks, sea turtles, and smalltooth sawfish. As mentioned, this action establishes a red snapper regional management system for the recreational sector and so would indirectly affect bycatch depending on which management measures are used in specific regions. For species with quotas (greater amberjack, gray triggerfish, red grouper, and gag, this could lead to a shift in fishing effort during red snapper season closures and negatively impact reef fish stocks not currently constrained by annual quotas or IFQ programs. The magnitude of this impact would depend on the size of the particular quota, the length of the closure, and the amount of effort shifting that occurs. Annual catch limits and accountability measures are now in effect for species not considered undergoing overfishing or overfished, thus potential for effort shifting and changes in bycatch may be lessened for these species.

Criterion 4: Effects on marine mammals and birds

The effects of current management measures on marine mammals and birds are described above. Bycatch minimization measures evaluated in this amendment are not expected to significantly affect marine mammals and birds. There is no information to indicate marine mammals and birds rely on red snapper for food, and measures in this amendment are not anticipated to alter the existing prosecution of the fishery, and thus interactions with marine mammals or birds.

Criterion 5: Changes in fishing, processing, disposal, and marketing costs

The proposed management measures in this amendment would not be expected to result in any changes in fishing, processing, disposal, or marketing costs of commercially harvested red snapper because the measures only apply to the harvest of red snapper by the recreational sector. Red snapper that are harvested by the recreational sector in the Gulf may not be sold.

Criterion 6: Changes in fishing practices and behavior of fishermen

It is not possible to determine whether bycatch, including the amount of regulatory discards, will be affected following implementation of this action. The proposed measures of this amendment will enable each Gulf state or region to establish management measures for its assigned portion of the recreational red snapper quota. However, this action does not establish what those management measures will be, which remains unknown. Thus, it also remains unknown how the management measures that will be adopted by the regions will differ from the current regulations for red snapper and thus, how newly established regional regulations will differ from current fishing practices and affect fishermen behavior. It is possible that bycatch could be reduced if a region adopts a recreational red snapper season that is contemporaneous with periods of highest fishing activity. However, it is also likely that fishing activity will continue after the fishing season, and regulatory discards will occur. The amount of red snapper quota to be harvested by each state should theoretically approximate the catch that has been landed in that region, historically. Thus, it is possible that the amount of regulatory discards remains more or less the same.

Criterion 7: Changes in research, administration, and enforcement costs and management effectiveness

Proposed management measures are not expected to significantly impact administrative costs at the federal level, but could increase costs at the regional level. Size limits, bag limits, quotas, and closed seasons are currently used to regulate the recreational sector harvesting red snapper. All of these measures will require additional research to determine the magnitude and extent of impacts to bycatch and bycatch mortality. None of the measures are expected to affect research, administration, or enforcement of the commercial sector.

Criterion 8: Changes in the economic, social, or cultural value of fishing activities and non-consumptive uses of fishery resources

The establishment of a regional management program is not expected to affect the economic, social, or cultural value of red snapper fishing. Red snapper is a highly desirable target species and the proposed measures are intended to support the adoption of fishing regulations that better satisfy the preferences of local constituents. This would be expected to improve fishing opportunities, thereby increasing the economic and social benefits for fishermen and associated coastal businesses and communities. No effects would be expected on the non-consumptive uses of the fishery resources.

Criterion 9: Changes in the distribution of benefits and costs

The net effects of the proposed management measures in this amendment on bycatch are unknown because the resultant management measures that will be enacted by the respective regions are unknown. The proposed management measures would not be expected to affect the amount of red snapper harvest normally harvested by anglers in each region as the allocation of the overall recreational quota should reflect regional harvests. However, the ability of each region to enact management measures that better match the preferences of local constituents would be expected to increase the benefits, and possibly decrease the costs, associated with the

recreational harvest of red snapper. Because the commercial sector is not affected by this action, there should be no change in the distribution of benefits and costs to this sector.

Criterion 10: Social effects

Bycatch is considered wasteful by fishermen and it reduces overall yield obtained from the fishery. Minimizing bycatch to the extent practicable will increase efficiency, reduce waste, and benefit stock recovery, thereby resulting in net social benefits for the recreational sector. It is assumed that if regions establish a red snapper fishing season to coincide with regionally preferred fishing times, the social effects will be positive.

Conclusion

Analysis of the ten bycatch practicability factors indicates there would be positive biological impacts associated with further reducing bycatch and bycatch mortality in the reef fish fishery. The main benefits of reducing red snapper bycatch are less waste and increased yield in the directed fishery. Reducing discards and discard mortality rates would result in less forgone yield.

When determining reductions associated with various management measures, release mortality is factored into the analyses to adjust the estimated reductions for losses due to dead discards. The increases in discards associated with each of these management measures varies and is contingent on assumptions about how fishermen's behavior and fishing practices will change. In this action, establishing a regional recreational red snapper management system would indirectly affect discards and bycatch. Discards and bycatch would be affected depending on the application of regional management measures allowed under Action 1.

The Council needed to consider the practicability of implementing the bycatch minimization measures discussed above with respect to the overall objectives of the Reef Fish Fishery Management Plan and Magnuson-Stevens Fishery Conservation and Management Act. Therefore, given actions in this amendment combined with previous actions, management measures, to the extent practicable, minimize bycatch and to the extent bycatch cannot be avoided, minimize the mortality of that bycatch.