9/15/10

ANALYSES FOR TWO TEMPORARY RULES:

AUTHORIZE NOAA FISHERIES SERVICE TO RE-OPEN THE RECREATIONAL RED SNAPPER SEASON DURING 2010 AFTER THE FISHING SEASON CLOSURE,

AND

RECREATIONAL RED SNAPPER FISHING SEASON RE-OPENING

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

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ABBREVIATIONS USED IN THIS DOCUMENT

APA	Administrative Procedures Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CZMA	Coastal Zone Management Act
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EJ	Environmental Justice
EO	Executive Order
ESA	Endangered Species Act
FDA	Food and Drug Administration
FMP	Fishery Management Plan
FMU	Fishery Management Unit
FONSI	Finding of No Significant Impact
FR	Federal Register
GMFMC	Gulf of Mexico Fishery Management Council
HAPC	Habitat Areas of Particular Concern
IFQ	Individual Fishing Quota
IRFA	Initial Regulatory Flexibility Analysis
MP	Million Pounds
MPA	Marine Protected Area
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
MSY	Maximum Sustainable Yield
NAO	NOAA Administrative Order
NMFS	NOAA's National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOS	National Ocean Survey
OMB	Office of Management and Budget
OY	Optimum Yield
PRA	Paperwork Reduction Act
RIR	Regulatory impact review
SAFMC	South Atlantic Fishery Management Council
SEDAR	Southeast Data, Assessment, Review
SEIS	Supplemental Environmental Impact Statement
SMZ	Special Management Zone
SPR	Spawning Potential Ratio
SSB	Spawning Stock Biomass
SSBR	Spawning Stock Biomass per Recruit
TL	Total Length
USC	United States Code

ENVIRONMENTAL ASSESSMENT COVER SHEET

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Name of Actions

A Temporary Rule to Authorize NOAA Fisheries Service to Re-Open the Recreational Red Snapper Season during 2010 After the Fishing Season Closure, and a Temporary Rule to Re-open the Recreational Red Snapper Fishing Season

Type of Action

() Administrative
() Draft

( ) Legislative
(X) Final

ABSTRACT

The recreational red snapper fishing season opened on June 1, 2010, and the fishing season officially ends on September 30, 2010. The Magnuson-Stevens Fishery Conservation and Management Act mandates that NOAA Fisheries Service close the recreational red snapper sector when the quota is reached. On May 3, 2010, NOAA Fisheries Service published a rule establishing a closure date for the recreational sector of 12:01 a.m. July 24, 2010. This was the date the 3.403-million pound quota was projected to be met. However, the Deepwater Horizon MC252 oil spill prompted NOAA Fisheries Service to apply a large-area fishery closure centered in the north-central Gulf of Mexico where a substantial portion of the recreational red snapper fishing effort occurs. Because of the oil spill and associated fishery closed area, the Gulf of Mexico Fishery Management Council (Council) was concerned that the recreational quota would not be met by this closure date. NOAA Fisheries Service has the authority to re-open the recreational red snapper fishing season, if the quota is not met, but only through the end of the fishing season, September 30. The longer the re-opening is delayed, the greater the possibility that more oil-affected area re-opened to fishing. Therefore, in June 2010, the Council requested that NOAA Fisheries Service publish a temporary rule that will allow the Regional Administrator to re-open the recreational red snapper season after the September 30, 2010, end of the fishing season. This, in combination with a second temporary rule, will allow the recreational quota to be harvested, and potentially allow for some harvest in the oil-affected areas that may be re-opened to fishing in the future. NOAA Fisheries Service informed the Council, at its August 2010 meeting, that the recreational red snapper quota was not met, and the Council further requested NOAA Fisheries Service re-open the recreational red snapper fishing season during eight consecutive weekends (Friday through Sunday) beginning October 1, 2010, through 12:01 a.m. November 22, 2010. This environmental assessment analyzes the environmental impacts of these two requested actions.

FINDING OF NO SIGNIFICANT IMPACTS

National Oceanic and Atmospheric Administration (NOAA) Administrative Order 216-6 (NAO 216-6) (May 20, 1999) contains criteria for determining the significance of the impacts of a proposed action. On July 22, 2005, NOAA's National Marine Fisheries Service (NOAA Fisheries Service published Instructions 30-124-1 with guidelines for the preparation of a Finding of No Significant Impact. In addition, the Council on Environmental Quality (CEQ) regulations at 40 C.F.R. Section 1508.27 state that the significance of an action should be analyzed both in terms of "context" and "intensity." Each Criterion listed below is relevant to making a finding of no significant impact and has been considered individually, as well as in combination with the others. The significance of this action is analyzed based on the NAO 216-6 criteria, the recent Policy Directive from NOAA Fisheries Service (#30-124), and CEQ's context and intensity criteria. These include:

1) *Can the proposed action reasonably be expected to jeopardize the sustainability of any target species that may be affected by the action?*

Response: No. Harvests of target species are primarily controlled by hard quotas, minimum size limits, bag limits, and trip limits. The quota is established based on an allowable biological catch level determined from the results of a peer-reviewed and vetted stock assessment, which is based on the best scientific information available. The proposed action does not alter the manner in which the fishery is conducted, nor does it change the allowable harvest. The proposed action providing the authority to allow harvest of any available quota during a different portion of the fishing year is an administrative action. Subsequent action to actually re-open the recreational fishing season would lead to direct effects on the target resource. To that end, the proposed action to re-open the recreational fishing season for red snapper would have a negative biological impact compared to "no action" whereby the recreational fishing season remains closed, which would reduce overall fishing mortality. However, the proposed action is biologically neutral compared to the norm, whereby the full quota is normally harvested during the established summer fishing season. Re-opening the recreational red snapper fishing season during an adjusted fishing season may indirectly lessen fishing pressure and fishing mortality on other reef fish stocks, some of which are undergoing overfishing, thus providing some benefit to these other target species as well.

2) *Can the proposed action reasonably be expected to jeopardize the sustainability of any non-target species?*

Response: No. The proposed action does not alter the manner (except the timing) in which the fishery is conducted, nor does it change the allowable harvest; the proposed action would only provide the authority to adjust the time of year that the allowable harvest of red snapper can be taken, and subsequently re-open the fishing season during an altered time frame. Incidental catch would consist of alternative target species that are managed (e.g., vermilion snapper, greater amberjack) or non-managed species that are not known to be in jeopardy from fishing, e.g., grunts and porgies. Fishing regulations exist for several of these species to constrain harvest and those regulations are unaffected by this action. As elaborated in Criterion 5, the proposed actions are not expected to adversely affect endangered and threatened species.

3) *Can the proposed action reasonably be expected to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat (EFH) as defined under the Magnuson Stevens Fisheries Conservation and Management Act (Magnuson Stevens Act) and identified in Fishery Management Plans (FMPs)?*

Response: No. The proposed actions to provide authority to allow possible harvest of red snapper in areas open to fishing during an altered time frame, and to subsequently authorize the harvest to occur, is not reasonably expected to cause substantial damage to the ocean and coastal habitats or EFH. Reef fish fishing occurs in areas that have been identified as EFH for several managed species, and is conducted primarily with hook-and-line gear. Vertical line gear could damage coral or other hard bottom habitat if it becomes entangled within these structures, but these effects are expected to be minimal. In addition, NOAA Fisheries Service has concluded the proposed action is consistent with the enforceable policies of the Coastal Zone Management programs of affected states.

4) *Can the proposed action reasonably be expected to have a substantial adverse impact on public health or safety?*

Response: No. The proposed action is not reasonably expected to have a substantial adverse impact on public safety or health. The proposed action does not alter the manner (except the timing) in which the fishery is conducted. The proposed actions would provide the authority to allow harvest of the resource in areas where fishing is allowed under an altered time frame, and subsequently authorize that harvest to occur. The federal and State governments have strong systems in place to test and monitor seafood safety and to prohibit harvesting from affected areas, keeping oiled products from being harvested. NOAA Fisheries Service is working closely with the U.S. Food and Drug Administration (FDA) and the States to ensure seafood safety. The first and most important preventive step in protecting the public from potentially contaminated seafood is from NOAA Fisheries Service's actions to close fishing and shellfish harvesting areas in federal waters of the Gulf that have been or are likely to be exposed to oil from the spill. In addition, NOAA and FDA are monitoring fish caught just outside of closed areas, and testing them for petroleum compounds, to ensure that the closed areas are sufficiently large so as to prevent the harvest of contaminated fish. NOAA conducts a combination of both sensory analysis (of tissue) and chemical analysis (of water, sediment, and tissue) to determine if seafood is safe. If managers determine that seafood may be affected, the next step is to assess whether seafood is tainted or contaminated to levels that could pose a risk to human health through consumption. So far, fish flesh tested from outside the closure areas have tested well below any level of concern for oil-based contamination.

5) *Can the proposed action reasonably be expected to adversely affect endangered or threatened species, their critical habitat, marine mammals, or other non-target species?*

Response: No. The proposed action to give NOAA Fisheries Service the authority to re-open the recreational red snapper season after September 30, 2010, and the second temporary rule authorizes the harvest to occur under an altered time frame. These actions do not alter the overall manner in which the fishery is conducted, only the timing of the fishing season; thus they would not affect endangered or threatened species or marine mammals in a manner not already

considered in previous biological opinions conducted for the fishery under the Endangered Species Act. In addition, recent regulations require for-hire reef fish permitted vessels to comply with sea turtle and smalltooth sawfish release protocols, possess a specific set of release gear, and adopt guidelines for the proper care for incidentally caught sawfish. These regulations are designed to benefit sea turtle and smalltooth sawfish populations by reducing discard mortality. Other listed species and designated critical habitat in the Gulf are not likely to be adversely affected, according to the most recent (2009) biological opinion for the reef fishery. The Gulf reef fish fishery is classified in the 2009 Marine Mammal Protection Act List of Fisheries as Category III fishery (73 FR 73032, December 1, 2008). This classification indicates the annual mortality and serious injury of a marine mammal stock resulting from the fishery is less than or equal to 1% of the potential biological removal.

6) *Can the proposed action be expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships, etc.)?*

Response: No. Harvests of target species are primarily controlled by hard quotas, minimum size limits, bag limits, and trip limits. Harvest levels are established based on results of a peer-reviewed and vetted stock assessment, which is based on the best scientific information available. The proposed action does not alter the manner in which the fishery is conducted, nor does it change the allowable harvest; the proposed action would only provide the authority to adjust the time of year that the allowable harvest can be taken, and subsequently re-open the fishing season during an altered time frame. Given the short-term nature of the proposed regulations, the action is not expected to be sufficiently substantial to influence biodiversity or ecosystem function within the Gulf, in terms of altering marine productivity, predator-prey relationships, or other ecological relationships.

7) *Are significant social or economic impacts interrelated with natural or physical environmental effects?*

Response: No. The proposed action to give NOAA Fisheries Service the authority to re-open the recreational red snapper season after September 30, 2010, and the second temporary rule authorizes the harvest under an altered time frame. These actions do not alter the manner in which the fishery is conducted, nor does it change the allowable harvest; the proposed actions would only provide the authority to re-open the season, and subsequently adjust the time of year that the allowable harvest can be taken. No information is available that indicates that the 2010 recreational red snapper quota should not be harvested. No information is available that indicates reduced harvests are necessary to maintain the current rebuilding schedule, i.e., mitigate biological harm resulting from the oil spill. The current rebuilding schedule and associated recreational and commercial quotas are based on the assumption, given assessed biological conditions and legal obligations, that they will achieve maximum economic and social benefits, while allowing the stock to rebuild to its maximum yield potential. Thus, the action, which ultimately would allow the opportunity to harvest the quota and meet the Gulf of Mexico Fishery Management Council's (Council) designated optimum yield (OY) from the red snapper resource, is biologically neutral compared to the norm, whereby the full quota is normally harvested. However, stock rebuilding would not be expected to occur substantially quicker if the

quota were not allowed to be harvested. The proposed action provides social and economic benefits compared to "no action", which would not allow further harvest of the remaining quota. However, these social and economic benefits are not related to the natural or physical environment. These impacts are described in Sections 4.3 and 4.4 of the Environmental Assessment (EA).

8) *Are the effects on the quality of the human environment likely to be highly controversial?*

Response: No. The effects on the quality of the human environment are not likely to be highly controversial. The fishing industry questions the validity of the science involved in the estimates of harvest. However, the proposed action would ultimately provide greater flexibility to the recreational sector to harvest red snapper at the Council designated OY level is expected to be perceived as an appropriate and favorable action. Conversely, the proposed action could indirectly lead to negative consequences to the human environment. Allowing additional fishing pressure on the stock, which may or may not have been biologically impacted by the Deepwater Horizon MC252 oil spill, could result in a reduced stock size. At this time, no information is available to make such a determination regarding the impacts of the Deepwater Horizon MC252 oil spill on any fish stock. As discussed in the EA, impacts to red snapper may be limited to eggs and larvae in the oil-affected areas; benthic habitats of juvenile and adult red snapper are not currently believed to have been significantly impacted.

As discussed in Section 3.3.11, NOAA, the Food and Drug Administration, the Environmental Protection Agency, and the Gulf States have implemented a comprehensive, coordinated, multi-agency program to ensure that seafood from the Gulf of Mexico is safe to eat. This is important not only for consumers who need to know their food is safe to eat, but also for fishermen who need to be able to sell their products with confidence. All sampling in areas that have subsequently been re-opened to fishing has shown no signs of contamination.

9) *Can the proposed action reasonably be expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers, EFH, or ecologically critical areas?*

Response: No. The proposed action is not reasonably expected to result in substantial impacts to unique areas, park land, prime farmlands, wetlands, wild and scenic rivers, EFH, or ecologically critical areas. Park land, prime farmlands, wetlands, wild and scenic rivers are inland and are not affected by this action in federal waters of the Gulf. Possible beneficial impacts to EFH are discussed in the response to Question 3. Reef fish fishing occurs in or adjacent to ecologically sensitive areas, such as habitat areas of particular concern, marine sanctuaries, and marine reserves. Although vertical gear used within these areas could adversely impact habitat if it became entangled within coral or other living bottom structures (see Section 2.1), the proposed actions are expected to have minor effects. In regard to ecologically critical areas in the Gulf, areas such as the Flower Gardens and the Tortugas Marine Sanctuaries are closed to fishing, Madison Swanson and Steamboat Lumps ecologically-critical areas are closed to bottom fishing. Fishing activity already occurs in the vicinity of the *U.S.S. Hatteras*, located in federal waters off Texas, which is listed in the National Register of Historic Places; but this would not increase

fishing activity over that exhibited in other years. Therefore, there would be no additional impacts on these components of the environment from the proposed action.

10) *Are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?*

Response: No. The proposed action provides the authority to modify, temporarily, an existing established management measure, and thus does not involve unique or unknown risk. NOAA Fisheries Service regularly re-opens fisheries when it has been determined quotas are not met (e.g. the commercial harvest of deep-water grouper and tilefish was re-opened in 2008 after it was subsequently determined landings had not met the quota). In addition, NOAA Fisheries Service regularly opens and closes specific areas to fishing in accordance with regulations established from various fishery management plans; these include actions such as the seasonal Texas Shrimp Closure in the Gulf and the season closure to bottom fishing in Madison Swanson and Steamboat Lumps ecologically-critical areas.

NOAA, FDA, the Environmental Protection Agency, and the Gulf States have implemented a comprehensive, coordinated, multi-agency program to ensure that seafood from the Gulf of Mexico is safe to eat. This is important not only for consumers who need to know their food is safe to eat, but also for fishermen who need to be able to sell their products with confidence. Fishing can only occur in areas re-opened under this program, and only after fish samples in these areas have been tested to ensure they are not contaminated.

Impacts of the oil spill may be uncertain, but the impacts of the spill on the red snapper stock may be limited to reduced recruitment, which is highly variable and uncertain across years, regardless of the spill and its effects. The outcome will only become apparent in following years as assessments are completed. Although there is some uncertainty as to the impacts of the spill on the stock and its recruitment, it is not considered significant in light of standard uncertainty associated with such factors.

11) *Is the proposed action related to other actions with individually insignificant, but cumulatively significant impacts?*

Response: No. The Deepwater Horizon MC252 oil spill is expected to have long-term significant impacts to major portions of the Gulf, and these actions are being taken in response to those impacts. However, there are no past and reasonably foreseeable future actions to manage red snapper that, if combined with this proposed action, would have a significant cumulative effect. This temporary action is intended to lessen social and economic impacts from forced effort shifting because of large area closures arising from the Deepwater Horizon MC252 oil spill. The proposed action is not related to other actions with individually insignificant but cumulatively significant impacts.

12) *Is the proposed action likely to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources?*

Response: No. The proposed action does not adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places nor is it expected to cause loss or destruction of significant scientific, cultural, or historical resources. Fishing activity already occurs in the vicinity of the *U.S.S. Hatteras*, located in federal waters off Texas, which is listed in the National Register of Historic Places; but this would not increase fishing activity over that exhibited in other years.

13) *Can the proposed action reasonably be expected to result in the introduction or spread of a non-indigenous species?*

Response: No. The proposed action involves only the harvest of existing native species in the Gulf of Mexico, and is not reasonably expected to result in the introduction or spread of a non-indigenous species. The proposed action is not expected to change the fishery in a way that would affect non-indigenous species or to result in habitat or ecosystem alterations in such a way that would promote the spread of non-indigenous species.

14) *Is the proposed action likely to establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration?*

Response: No. The proposed action does not establish a precedent for future action with significant effects, and it does not represent a decision in principle about future considerations. NOAA Fisheries Service regularly re-opens fisheries when it has been determined quotas are not met (e.g., the commercial harvest of deep-water grouper and tilefish was re-opened in 2008 after it was subsequently determined landings had not met the quota). In addition, NOAA Fisheries Service regularly opens and closes specific areas to fishing in accordance with regulations established from various fishery management plans; these include actions such as the seasonal Texas Shrimp Closure in the Gulf and the season closure to bottom fishing in Madison Swanson and Steamboat Lumps ecologically-critical areas. The Council and NOAA Fisheries Service have established a management strategy for red snapper whereby overfishing has been projected to have ended, and the stock should be rebuilt by 2032 (see section 2.2.2). The allowable harvest now and in the future will be in accordance with that rebuilding plan. The proposed action, conducted in accordance with regulations established under the FMP, as amended to date, in no way constitutes a decision in principle about a future consideration. FMPs and their implementing regulations are always subject to future changes. The Council and NOAA Fisheries Service have discretion to amend the FMP and accompanying regulations and may do so at any time, subject to the Administrative Procedures Act, National Environmental policy Act, and other applicable laws.

15) *Can the proposed action reasonably be expected to threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment?*

Response: No. The proposed action is being taken to ensure compliance with federal laws such as the Magnuson-Stevens Act, and is not reasonably expected to threaten a violation of other Federal, State, local law, or requirements imposed for the protection of the environment.

16) *Can the proposed action reasonably be expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species?*

Response: No. The recreational red snapper quota is established based on an allowable biological catch level determined from the results of a peer-reviewed and vetted stock assessment, which is based on the best scientific information available. The proposed actions do not alter the manner in which the fishery is conducted, nor does it change the allowable harvest; the proposed actions would only provide the authority to re-open the fishing season in 2010, and subsequently adjust the time of year that the allowable harvest can be taken. Subsequent action to actually re-open the recreational fishing season would lead to direct effects on the target resource. To that end, the proposed action to re-open could have a negative biological impact compared to "no action" whereby the recreational fishing season remains closed, which would reduce overall fishing mortality. However, the proposed action is biologically neutral compared to the status quo of previous years, whereby the quota is normally harvested during the regular recreational fishing season. Although it is currently unknown if the red snapper stock has been biologically impacted by the Deepwater Horizon MC252 oil spill, if that is the case, then allowing additional fishing pressure on the stock could result in a reduced stock size. Nevertheless, at this time, no information is available to make such a determination regarding the impacts of the Deepwater Horizon MC252 oil spill on any fish stock. As discussed in the EA, impacts to red snapper may be limited to eggs and larvae of that portion of the stock found in the oil-affected areas. Substantial portions of the stock reside and spawn in other areas of the Gulf that have not been impacted by the oil spill. Benthic habitats within the oil-impacted area, where juvenile and adult red snapper are found, may not have been impacted. By re-opening and adjusting the fishing season for red snapper, the proposed action may lessen fishing pressure and fishing mortality on other reef fish stocks, some of which are undergoing overfishing, thus providing some benefit to these other target species as well.

DETERMINATION:
In view of the information presented in this document and the analysis contained in the supporting EA prepared for the temporary rules for the Gulf of Mexico reef fish fishery, it is hereby determined that these temporary rules will not significantly impact the quality of the human environment as described above and in the supporting EA. In addition, all beneficial and adverse impacts of the proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an Environmental Impact Statement for this action is not necessary.

for Roy E. Crabtree, Ph.D.
Regional Administrator
Southeast Regional Office
National Marine Fisheries Service

9/15/2010
Date

EXECUTIVE SUMMARY

On April 20, 2010, an incident involving a deepwater oil drilling platform occurred approximately 50 miles southeast of Venice, Louisiana. An explosion and subsequent fire damaged the Deepwater Horizon MC252 oil rig, which capsized and sank. Oil flowed into the Gulf of Mexico (Gulf) from a damaged well head on the sea floor for 86 days. In response to the Deepwater Horizon MC252 oil spill, NOAA Fisheries Service issued a series of emergency rules closing a portion of the Gulf exclusive economic zone (EEZ) to all fishing and analyzed the environmental impacts of these closures in an Environmental Assessment (NMFS, 2010). Currently, coastal EEZ waters are closed to fishing from approximately Terrebonne Bay, west of the mouth of the Mississippi River in Louisiana, eastward to approximately Pensacola, Florida. This fishery closure because of Deepwater Horizon MC252 oil spill has had a severe impact on the recreational fishing efforts within the north-central Gulf. The north-central Gulf is the primary fishing area for red snapper by the recreational sector.

Because of the oil spill and the associated fishery closure, the Gulf of Mexico Fishery Management Council (Council) was concerned that the recreational quota would not be met by the July 24, 2010, closure date. Therefore, at its June 2010 meeting, the Council requested that NOAA Fisheries Service publish a temporary rule that will allow the Regional Administrator to re-open the recreational red snapper season after the September 30, 2010, end of the fishing season, after evaluating if landings during the June 1-July 23 open season did not meet the quota. At the Council's August 2010 meeting, NOAA Fisheries Service provided information to the Council indicating approximately 2.3 million pounds (mp) of the 3.4-mp quota remains. NOAA Fisheries Service further provided the Council with information projecting how many days of fishing could be allowed to harvest this remaining quota. Based on this information and substantial public comment at the August 2010 meeting, the Council voted to request that NOAA Fisheries Service re-open the recreational red snapper fishing season for eight consecutive weekends (Friday through Sunday) beginning October 1, 2010.

In accordance with the Council's request for temporary actions, this Environmental Assessment reviews two actions. **Action 1**, **Alternative 1,** no action, would not give NOAA Fisheries Service the authority to re-open the recreational red snapper fishing season after the September 30, 2010, end of the fishing season. This alternative would result in the recreational red snapper fishing season remaining closed until June 1, 2011, the start of the 2011 recreational fishing season. **Action 1, Alternative 2 (Preferred)** would give NOAA Fisheries Service the authority to re-open the fishing season after September 30, 2010. **Action 2 Alternative 1** would not allow the recreational red snapper fishing season to re-open, even though the quota has not been taken, which would provide biological benefits to this overfished stock. **Action 2 Alternative 2** provides two options by which the recreational red snapper season could be re-opened; for consecutive days or during weekends. The **Preferred option b** would re-open the recreational red snapper fishing season for eight consecutive weekends (Friday through Sunday) beginning October 1, 2010.

These actions do not alter the manner in which the fishery is conducted, nor does it change the allowable harvest; the proposed actions would only provide the authority to re-open the season, and subsequently adjust the time of year that the allowable harvest can be taken. No information

is available that indicates that the 2010 recreational red snapper quota should not be harvested. No information is available that indicates reduced harvests are necessary to maintain the current rebuilding schedule, i.e., mitigate biological harm resulting from the oil spill. The current rebuilding schedule and associated recreational and commercial quotas are based on the assumption, given assessed biological conditions and legal obligations, that they will achieve maximum economic and social benefits, while allowing the stock to rebuild to its maximum yield potential. Thus, the actions, in combination, would allow the opportunity to harvest the quota and meet the Gulf of Mexico Fishery Management Council's designated optimum yield from the red snapper resource; thus it is biologically neutral in regard to stock status. However, stock rebuilding would not be expected to occur substantially quicker if the quota were not allowed to be harvested. The proposed action provides social and economic benefits compared to "no action", which would not allow further harvest of the remaining quota.

1 INTRODUCTION

1.1 Background

On April 20, 2010, an incident involving a deepwater oil drilling platform occurred approximately 50 miles southeast of Venice, Louisiana. An explosion and subsequent fire damaged the Deepwater Horizon MC252 oil rig, which capsized and sank. Oil flowed for 86 days into the Gulf of Mexico (Gulf) from a damaged well head on the sea floor. In response to the Deepwater Horizon MC252 oil spill, NOAA Fisheries Service issued a series of emergency rules closing a portion of the Gulf exclusive economic zone (EEZ) to all fishing and analyzed the environmental impacts of these closures in an Environmental Assessment (NMFS, 2010). NOAA Fisheries continues to adjust the spatial dimensions of the fishery closed area as new information becomes available regarding areas affected by oil. Currently, for the coastal EEZ, waters are closed to fishing from approximately Terrebonne Bay, west of the mouth of the Mississippi River in Louisiana, eastward to Pensacola, Florida.

This fishery closure because of Deepwater Horizon MC252 oil spill has had a severe impact on the recreational fishing efforts within the north-central Gulf. The north-central Gulf is the primary fishing area for red snapper by the recreational sector. Total recreational red snapper landings for 2009 were 4.59 million pounds (mp), of which approximately 3.9 mp was taken off Louisiana, Mississippi, Alabama, and west Florida. Marine Recreational Fishery Statistics Survey (MRFSS) records indicate that Alabama and Mississippi charter vessel and private sector landings accounted for more than 27 percent of the total 2009 recreational landings; slightly greater than 300,000 pounds were landed by charter operations and more than 950,000 pounds were landed by private recreational anglers. Waters off both of these states have been closed to all fishing since June 1, 2010, the opening day of the recreational red snapper season.

The recreational red snapper fishing season officially ends on September 30, 2010. However, the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) mandates that NOAA Fisheries Service close the recreational red snapper sector when the quota is reached. On May 3, 2010, NOAA Fisheries Service published a rule establishing a closure date for the recreational sector of 12:01 a.m. July 24, 2010. This was the date the 3.403-mp quota was projected to be met. Because of the oil spill and the associated fishery closure, the Gulf of Mexico Fishery Management Council (Council) was concerned that the recreational quota would not be met by this closure date. Therefore, at its June 2010 meeting, the Council requested that NOAA Fisheries Service publish an temporary rule to provide authority to the Regional Administrator to re-open the recreational red snapper season after the September 30, 2010, end of the fishing season. Subsequently, at the Council's August 2010 meeting, NOAA Fisheries Service provided information to the Council indicating approximately 2.3 mp of the 3.4-mp quota remains. NOAA Fisheries Service further provided the Council with information projecting how many days of fishing could be allowed to harvest this remaining quota. Based on this information and substantial public comment at the August 2010 meeting, the Council voted to request that NOAA Fisheries Service re-open the recreational red snapper fishing season for eight consecutive weekends (Friday through Sunday) beginning October 1, 2010.

1.2 Purpose and Need

The proposed administrative **Action 1** would give NOAA Fisheries Service the authority to re-open the recreational red snapper fishing season under an altered time frame, and sets the basis for **Action 2** to ultimately allow harvest of red snapper in accordance with the Council's designated optimum yield (OY) level, and to maximize social and economic benefits to the red snapper component of the recreational sector of the reef fish fishery. The Magnuson-Stevens Act requires NOAA Fisheries Service and regional fishery management councils to prevent overfishing, and achieve, on a continuing basis, the OY from federally managed fish stocks. These mandates are intended to ensure fishery resources are managed for the greatest overall benefit to the nation, particularly with respect to providing food production and recreational opportunities, and protecting marine ecosystems.

Because of increasing catch rates and increasing size of fish being landed by the recreational sector, the recreational red snapper quota has been exceeded in each of several recent years. Because no real-time reporting exists for the recreational sector, prior to the start of the June 1-September 30 fishing season NOAA Fisheries Service projects when the recreational quota will be met for the fishing year. These projections are based on landings and effort from the previous year. In 2008, the quota was projected to be met on August 15; final recreational landings indicated the quota was exceeded by 52 percent. For 2009, the quota was projected to be met on August 5; final recreational landings data indicated the quota was exceeded by 88 percent. Based on the significant overages and the reasons for overages (increased catch rates, size of fish, increased effort, etc.), NOAA Fisheries Service projected the 2010 quota would be met in 53 days; the shortest season since the June 1 through September 30 fishing season was established. Even with the 2010 increase in the recreational quota (GMFMC 2010) from 2.45 mp to 3.403 mp, the projections indicated the quota would be met by July 23, and the fishing season should close at 12:01 a.m. July 24.

The majority of the recreational red snapper fishing effort and landings come from the north-central Gulf. However, because of the impacts of the Deepwater Horizon MC252 oil spill and subsequent closure of the north-central Gulf to all fishing, the recreational quota was not met by that date. As noted in the Introduction, approximately 85 percent of the recreational harvest has traditionally occurred off Louisiana, Mississippi, Alabama and the panhandle of Florida. Much of the federal waters off Louisiana and off all of Mississippi and Alabama have been closed since June 1, the opening day of the recreational red snapper season. A portion of the federal waters off the eastern panhandle of Florida remained open until June 16, when the waters off the entire panhandle were closed until August 10. Federal waters off western Louisiana were closed July 5 through August 27.

Therefore, on June 23, 2010, the Council requested that NOAA Fisheries Service promulgate temporary regulations that would authorize the Regional Administrator to re-open the recreational red snapper season after the September 30, 2010, closure to allow the 2010 recreational quota to be harvested. The Council noted policy guidelines for the use of emergency rules [62 FR 44421, August 21, 1997] list three criteria for the use of temporary rules, and the Council provided the following rationale addressing each criterion.

(1) Results from recent, unforeseen events or recently discovered circumstances;
The explosion and sinking of the Deepwater Horizon MC252 oil rig and subsequent uncontrolled release of oil was not foreseen.

(2) Presents serious conservation or management problems in the fishery;
The spread of oil has resulted in the need for an unprecedented safety closure of more than 30 percent of the Gulf of Mexico, preventing fishermen in a wide area of the Gulf from being able to fish for red snapper and other finfish species. The resulting reduction in fishing effort has resulted in economic hardships to the recreational fishing industry and likelihood that the 3.403 million pound recreational quota will not be attained before the July 24 closing date. The Reef Fish framework procedure authorized the Regional Administrator to re-open a fishing season that has been closed prematurely to allow the quota to be filled, but only through September 30.

(3) Can be addressed through emergency regulations for which the immediate benefits outweigh the value of advance notice, public comment, and deliberative consideration of the impacts to the same extent as would be expected under the normal rulemaking process.
Allowing the recreational season to be open past September 30 will, provided that the quota has not been met, alleviate some of the economic hardships caused by the Deepwater Horizon MC252 oil spill. Neither a regulatory amendment nor a full plan amendment can be implemented in time to provide relief to the recreational fishing community in 2010. The Council is of the opinion a temporary rule is the only way to provide immediate benefits.

Subsequently, at the Council's August 2010 meeting, NOAA Fisheries Service provided information to the Council indicating approximately 2.3 mp of the 3.4 mp quota remains. NOAA Fisheries Service further provided the Council with information projecting how many days of fishing could be allowed to harvest this remaining quota. Based on this information and substantial public comment at the August 2010 meeting, the Council voted to request that NOAA Fisheries Service re-open the recreational red snapper fishing season for eight consecutive weekends (Friday through Sunday) beginning October 1, 2010. The intent of these two Council requests is to allow harvest of red snapper in accordance with the Council's designated optimum yield (OY) level, and to maximize social and economic benefits to the red snapper component of the recreational sector of the reef fish fishery.

1.3 History of Management

A brief history of management is provided below as it pertains to this action. A more complete summary of red snapper management can be found in Joint Amendment 27 to the Reef Fish FMP and Amendment 14 to the FMP for the Shrimp Fishery of the Gulf of Mexico (Amendment 27/14) and in Hood et al. (2007). Information on management of the reef fish fishery as a whole can be obtained by contacting the Council.

The **Fishery Management Plan (FMP) for the Reef Fish Resources of the Gulf of Mexico** (with its associated environmental impact statement [EIS]) was implemented on November 8, 1984, and defined the reef fish Fishery Management Unit (FMU) to include red snapper and other important reef fish. Section 5.2.1 of the FMP describes the FMU defined by the Reef Fish FMP which includes red snapper. The FMPs implementing regulations were designed to rebuild declining reef fish stocks and included: 1) Prohibitions on the use of fish traps, roller trawls, and

power head-equipped spear guns within an inshore stressed area; 2) a minimum size limit of 13 inches total length (TL) for red snapper, with exceptions that for-hire boats were exempted until May 8, 1987, and each angler could keep five undersize fish; and 3) the specification of optimum yield (OY) for snapper and grouper.

Amendment 1 to the Reef Fish FMP (with its associated environmental assessment [EA], Regulatory Impact Review [RIR], and Initial Regulatory Flexibility Act [IRFA] analysis) was implemented on February 21, 1990. The primary objective of the amendment was to stabilize long-term population levels of all reef fish species by January 1, 2000, at a level that equaled at least 20% of the spawning stock biomass per recruit (SSBR) that would occur with no fishing.

Amendment 3 (with its associated EA, RIR, and IRFA), implemented on July 29, 1991, added flexibility to the annual framework procedure for specifying total allowable catch by allowing rebuilding timeframes to be adjusted in response to changing scientific advice, with the exception that the maximum time to rebuild could not exceed 1.5 times the generation time of the species under consideration. Additionally, the amendment revised OY and overfishing definitions, replaced the 20% SSBR target with a target of 20% spawning potential ratio (SPR), and specified 2007 as the target year to rebuild the stock to 20% SPR. This framework was updated in **Amendment 18A** (with its associated EA, RIR, and IRFA), implemented on September 8, 2006, to account for the Southeast Data, Assessment, and Review (SEDAR) process.

Amendment 4 (with its associated EA and RIR), implemented on May 8, 1992, established a moratorium on the issuance of new reef fish permits for a maximum period of three years. This moratorium was extended in **Amendment 9** (with its associated EA and RIR, implemented on July 27, 1994), **Amendment 11** (with its associated EA and RIR implemented January 1, 1996), and **Amendment 17** (with its associated EA and RIR), implemented on August 2, 2000). It was extended indefinitely in **Amendment 24** (with its EA, RIR, and IRFA, implemented on August 17, 2005). An **emergency rule**, effective December 30, 1992, created a red snapper endorsement to the reef fish permit. This endorsement was made permanent in **Amendment 6** (with its associated EA, RIR, and IRFA; implemented on June 29, 1993), **Amendment 11**, and **Amendment 13** (with its associated EA and RIR, implemented on September 15, 1996).

Amendment 7 (with its associated EA, RIR, and IRFA), implemented on February 7, 1994, established reef fish dealer permitting and record keeping requirements. The Secretary disapproved one provision of the amendment, which would have limited the sale of reef fish to permitted dealers. However, this provision was ultimately implemented in **Amendment 11.**

Amendment 20 (with its associated EA and RIR), implemented on June 16, 2003, established a three-year moratorium on the issuance of new charter and headboat vessel permits in Gulf reef fish to limit further expansion in the for-hire fisheries while the Council considered the need for more comprehensive effort management systems. This moratorium was extended indefinitely in **Amendment 25** (with its SEIS, RIR, and IRFA), implemented June 15, 2006).

Amendment 22 (with its Supplemental EIS [SEIS], RIR, and IRFA), implemented on July 5, 2005, set post-Sustainable Fisheries Act biological reference points and status determination

criteria for red snapper, established a rebuilding plan for the red snapper stock, and specified a reporting program to improve bycatch monitoring in the reef fish fishery.

Amendment 26 (with SEIS, RIR, and IRFA), effective on January 1, 2007, established an Individual Fishing Quota (IFQ) program for the commercial red snapper component of the reef fish fishery. Quota shares are freely transferable to other reef fish permit holders during the first 5 years following implementation and to anyone thereafter.

An interim rule, published on April 2, 2007, reduced the red snapper total allowable catch quota to 6.5 MP, resulting in a commercial quota of 3.315 mp and a recreational quota of 3.185 mp; reduced the red snapper recreational bag limit from four fish to two fish per person per day; prohibited the captain and crew of for-hire vessels from retaining the recreational bag limit; reduced the commercial minimum size limit from 15-inches to 13-inches TL; and established a target red snapper bycatch mortality reduction goal for the shrimp fishery that equates to 50% of the bycatch mortality that occurred during 2001-2003 and a level of shrimp effort equal to that observed in the fishery in 2005.

Joint Reef Fish FMP Amendment 27/Shrimp FMP Amendment 14, (with an EIS, RIR, and IRFA) was implemented February 28, 2008, except for reef fish bycatch reduction measures that became effective on June 1, 2008. This amendment addressed overfishing and stock rebuilding for red snapper. The amendment reduced total allowable catch to 5.0 mp (2.55 mp and 2.45 mp commercial recreational quotas respectively) and adjusted the recreational fishing measures to a 2 fish bag limit, 16-inch TL minimum size, and a fishing season from June 1 through September 30. It also required the use of non-stainless steel circle hooks when using natural baits to fish for Gulf reef fish effective June 1, 2008, and required the use of venting tools and dehooking devices when participating in the commercial or recreational reef fish fisheries effective June 1, 2008. In addition, the amendment established a 74% reduction in shrimp effort compared to average effort levels of 2001-2003, and possible closed areas should this target not be met. This action replaced the dependence on bycatch reduction devices by the shrimp fishery to reduce red snapper bycatch.

A framework action raised the recreational and commercial quotas in 2010 (GMFMC 2010) based on results from a red snapper assessment update in 2009. The assessment update projected the red snapper stock is no longer undergoing overfishing and that total allowable catch could be increased. The framework action raised total allowable catch to 6.945 mp, consistent with goals and objectives of the Council's red snapper rebuilding plan. Regulations resulting from the Council's actions established commercial and recreational quotas from 2.55 and 2.45 mp to 3.542 and 3.403 mp, respectively. In that rulemaking, NOAA Fisheries Service announced a projected date (12:01 a.m. July 24, 2010) the recreational sector would meet its quota and recreational fishing season would be closed.

1.4 Management Alternatives

Section 1502.14 of the Council on Environmental Quality (CEQ) regulations requires agencies to explore and objectively evaluate all reasonable alternatives for an action, including the no action alternative. The analysis of alternatives shall describe the environment to be affected by the action and the environmental consequences of each of the alternatives (Part 1502.14, CEQ). Alternatives shall be presented in comparative form to provide a clear basis for why decision makers selected the preferred alternative(s).

In accordance with the Council's requests to address the issue through temporary action, two actions are being considered in this EA and are listed below. **Action 1** is an administrative action that allows for the subsequent implementation of **Action 2**. Descriptions of the environmental consequences associated with each alternative can be found in Section 3.0. Section 2.0 describes the physical, biological, economic, social, and administrative environments affected by this action. Sections 4.3 and 5.0 provide a discussion of the economic impacts of this action.

Action 1: Authority to re-open the recreational fishing season for red snapper in the Gulf of Mexico.

> **Alternative 1 – No Action**. Do not give NMFS authority to re-open the recreational red snapper fishing season after September 30, 2010, the end of the established recreational red snapper season.
>
> **Alternative 2 – Preferred**. Give NOAA Fisheries Service the authority to re-open the fishing season after September 30, 2010, the end of the established recreational red snapper season.

Action 2. Re-open the recreational fishing season for red snapper in the Gulf of Mexico.

> **Alternative 1. No action.** Do not re-open the recreational red snapper fishing season in 2010.
>
> **Alternative 2. Preferred** Under existing regulatory authority, and authority established by Action 1, Preferred Alternative 2, re-open the recreational red snapper season:
>
> > **option a**: for consecutive days until the quota is projected to be met;
> >
> > **Preferred option b**: for a series of weekends (Fri-Sun) until the quota is projected to be met.

Note: The Council selected, in association with Action 2 Preferred option b, and subsequently requested that NOAA Fisheries Service re-open the recreational red snapper season for eight consecutive weekends (Friday through Sunday) beginning October 1, 2010, and ending at 12:01 a.m. on November 22, 2010.

2 AFFECTED ENVIRONMENT

The action considered in this environmental assessment would affect fishing in the Gulf region (Figure 2.1). Therefore, the following descriptions of the physical, biological, economic, social, and administrative environments focus primarily on this region.

2.1 Physical Environment

The physical environment for reef fish, including red snapper, has been described in detail in the EIS for the Generic Essential Fish Habitat Amendment and is incorporated here by reference (GMFMC 2004b). The Gulf has a total area of approximately 600,000 square miles (1.5 million kilometers^2), including state waters (Gore 1992). It is a semi-enclosed, oceanic basin connected to the Atlantic Ocean by the Straits of Florida and to the Caribbean Sea by the Yucatan Channel. Oceanic conditions are primarily affected by the Loop Current, the discharge of freshwater into the northern Gulf, and a semi-permanent, anticyclonic gyre in the western Gulf. Gulf surface water temperatures normally range from 12º C to 29º C (54º F to 84º F) depending on time of year. In the Gulf, adult red snapper are found in submarine gullies and depressions; over coral reefs, rock outcroppings, and gravel bottoms; and are associated with oil rigs and other artificial structures (GMFMC, 2004b).

The Deepwater Horizon MC252 oil spill has affected more than one-third of the Gulf area from western Louisiana east to the panhandle of Florida and south to the Campeche Bank in Mexico. The impacts of the Deepwater Horizon MC252 oil spill on the physical environment are expected to be significant and may be long-term. Oil is dispersed on the surface, and because of the heavy use of dispersants, oil is also documented as being suspended within the water column, some even deeper than the location of the broken well head. Floating and suspended oil is washing onto shore in several areas of the Gulf as are non-floating tar balls. Whereas suspended and floating oil degrades over time, tar balls are persistent in the environment and can be transported hundreds of miles.

Oil could exacerbate development of this year's hypoxic "dead" zone in the Gulf of Mexico. For example, oil on the surface of the water could restrict the normal process of atmospheric oxygen mixing into and replenishing oxygen concentrations in the water column. In addition, microbes in the water that break down oil and dispersant also consume oxygen; this could lead to further oxygen depletion.

Environmental Sites of Special Interest Relevant to Red Snapper (Figure 2.1)

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

Madison/Swanson and Steamboat Lumps Marine Reserves - No-take marine reserves sited on gag spawning aggregation areas where all fishing except for surface trolling during May through October is prohibited (219 square nautical miles).

The Edges – No-take area closure from January 1 to April 30. All commercial and recreational fishing or possession of fish managed by the Council is prohibited. The intent of the closure is to protect gag and other groupers during their respective spawning seasons. Possession would be allowed when transiting the area if gear is stowed in accordance with federal regulations. This area is not shown in Figure 2.1 due to its recent implementation. The boundaries of the closed area are: Northwest corner = 28º 51'N, 85º 16'W; Northeast corner = 28º 51'N, 85º 04'W; Southwest corner = 28º 14'N, 84º 54'W; Southeast corner = 28º 14'N, 84º 42'W.

Tortugas North and South Marine Reserves - No-take marine reserves cooperatively implemented by the state of Florida, National Ocean Service (NOS), the Council, and the National Park Service (see jurisdiction on chart) (185 square nautical miles). In addition, Generic Amendment 3 for addressing Essential Fish Habitat requirements, Habitat Areas of Particular Concern (HAPC), and adverse effects of fishing in the following FMPs of the Gulf: Shrimp, Red Drum, Reef Fish, Stone Crab, Coral and Coral Reefs in the Gulf and Spiny Lobster and the Coastal Migratory Pelagic resources of the Gulf and South Atlantic (GMFMC 2005) prohibited the use of anchors in these HAPCs.

Additionally, Generic Amendment 3 for Addressing Essential Fish Habitat Requirements (GMFMC 2005) establishes an education program on the protection of coral reefs when using various fishing gears in coral reef areas for recreational and commercial fishermen.

Individual reef areas and bank HAPCs of the northwestern Gulf including: East and West Flower Garden Banks, Stetson Bank, Sonnier Bank, MacNeil Bank, 29 Fathom, Rankin Bright Bank, Geyer Bank, McGrail Bank, Bouma Bank, Rezak Sidner Bank, Alderice Bank, and Jakkula Bank - Pristine coral areas protected by preventing use of some fishing gear that interacts with the bottom (263.2 square nautical miles). Subsequently, some of these areas were made a marine sanctuary by NOS and this marine sanctuary is currently being revised. Bottom anchoring and the use of trawling gear, bottom longlines, buoy gear, and all traps/pots on coral reefs are prohibited in the East and West Flower Garden Banks, McGrail Bank, and on the significant coral resources on Stetson Bank.

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

Pulley Ridge HAPC - A portion of the HAPC where deep-water hermatypic coral reefs are found is closed to anchoring and the use of trawling gear, bottom longlines, buoy gear, and all traps/pots (2,300 square nautical miles).

Stressed Areas for Reef Fish - Permanent closure Gulf-wide of the near shore waters to use of fish traps, power heads, and roller trawls (i.e., "rock hopper trawls") (48,400 square nautical miles).

Alabama Special Management Zone (SMZ) - In the Alabama SMZ, fishing by a vessel operating as a charter vessel or head boat, a vessel that does not have a commercial permit for Gulf reef fish, or a vessel with such a permit fishing for Gulf reef fish, is limited to hook-and-line gear

with no more than 3 hooks. Nonconforming gear is restricted to bag limits, or for reef fish without a bag limit, to 5% by weight of all fish aboard.

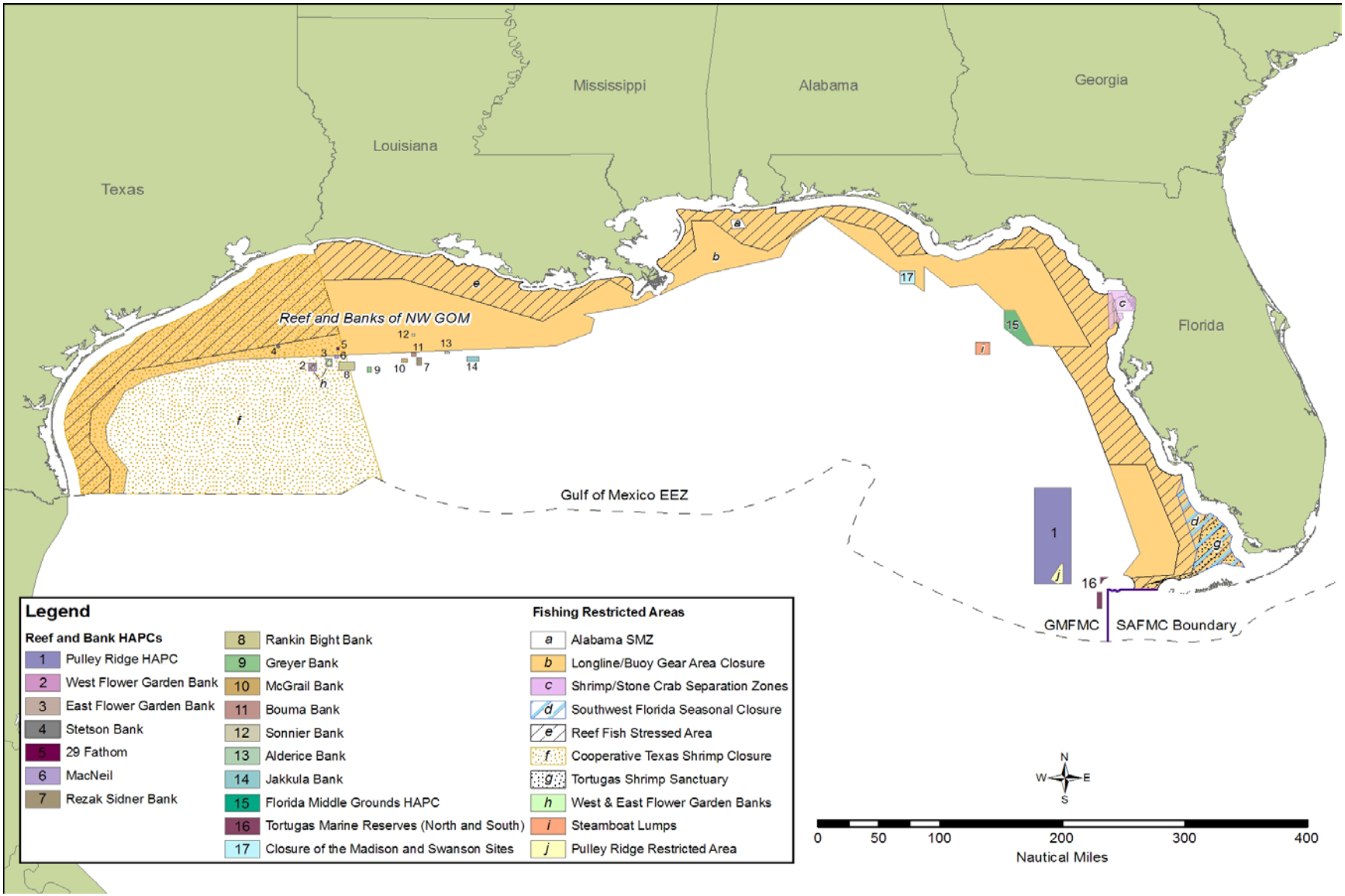

Figure 2.1 Map of most fishery management closed or gear restricted areas in the Gulf of Mexico

2.2 Biological Environment

The biological environment of the Gulf is described in detail in the final EIS for the Generic Essential Fish Habitat amendment and is incorporated here by reference (GMFMC 2004b).

2.2.1 Red Snapper Life History and Biology

Red snapper demonstrate the typical reef fish life history pattern (GMFMC 2004b). Eggs and larvae are pelagic while juveniles and adults tend to be demersal, although schools of adults may be found in the water column or at the surface. Larvae feed on zooplankton and phytoplankton. Juveniles are found associated with bottom features or over barren bottom, primarily from Texas through Alabama. Adults spawn over firm sand bottom with little relief away from reefs during the summer and fall. Adult females mature as early as 2 years and most are mature by 4 years (Schirripa and Legault 1999). Red snapper have been aged up to 57 years, but most caught by the directed fishery are 2- to 4-years old (Wilson and Nieland 2001). More detail on hard bottom substrate and coral that comprise adult red snapper habitat can be found in the FMP for Corals and Coral Reefs (GMFMC and SAFMC 1982).

2.2.2 Status of the Red Snapper Stock

Red snapper are taken as catch and bycatch by both the commercial and recreational sectors of the reef fish fishery, and juveniles (Age 0 – Age 1) are taken as bycatch in the Gulf shrimp trawl fishery. The considerable influence of all three fishing efforts on the status of red snapper challenges fishery managers to balance competing interests and goals in rebuilding the red snapper stock. The red snapper rebuilding plan established in 1990 has been revised and lengthened several times in response to new biological data and assessments, which have improved scientists understanding of the factors influencing red snapper mortality and rebuilding. The current red snapper rebuilding plan is designed to end overfishing of red snapper between 2009 and 2010, which is projected to have occurred, and to rebuild the red snapper stock by 2032. This plan was initially implemented in 2005 through Amendment 22 to FMP and revised in 2008 through Amendment 27/14 (GMFMC 2007).

The most recent red snapper stock assessment was completed in December 2009. A SEDAR program workshop was convened in Miami, Florida, from August 24-28, 2009, to review and update the 2005 benchmark stock assessment for red snapper. The following is a brief summary of the updated assessment. For a more detailed description of the assessment go to: http://www.sefsc.noaa.gov/sedar/Sedar_Workshops.jsp?WorkshopNum=00.

The Gulf red snapper stock is overfished; however, the assessment update projected that overfishing has ended. The assessment update indicated spawning stock biomass (SSB) has increased significantly. The ratio of SSB to $SSB_{26\%SPR}$ (rebuilding target) reached a low of 6.2% in 1989; $SSB/SSB_{26\%SPR}$ gradually increased to 13.1% in 2006 before rapidly increasing to 21.9% in 2009. The overfishing limit for red snapper in 2010 is estimated to be 9.26 mp. However, because there is considerable uncertainty around assessment model results, the Council's Scientific and Statistical Committee decided to set the acceptable biological catch at 75% of the overfishing limit, which is 6.945 mp. The Council voted to increase total allowable

catch from 5.0 mp to 6.945 mp, resulting in a 3.403 mp recreational quota and a 3.542 mp commercial quota. NOAA Fisheries Service implemented this change on June 2, 2010.

The red snapper component of the reef fish fishery has sector-specific quotas that act as annual catch limits, and accountability measures are in place to prevent or limit the likelihood that the annual catch limits are exceeded. For the commercial sector, an IFQ program has been implemented where fishermen are granted a percentage of the red snapper quota based on their historical participation in the fishery. Individual fishing quota landings are closely monitored to ensure the commercial quota or sector annual catch limit is not exceeded. For the recreational sector, the ability to limit the fishing season each year based on the projected harvest acts as an accountability measure.

Oil is dispersed on the surface as well as deep within the water column, but since the well head was capped, oil is beginning to disappear from some areas. The Deepwater Horizon MC252 oil spill may have direct negative impacts on red snapper egg and larval stages. Red snapper spawn during summer and fall. Oil still present in surface waters could affect the survival of eggs and larvae, affecting future recruitment. Effects on the physical environment such as low oxygen and the inter-related effects that culminate and magnify through the food web could lead to impacts on the ability of larvae and post-larvae to survive, even if they never encounter oil. In addition, effects of oil exposure may not always be lethal, but can create sub-lethal effects on the eggs, larva, and early life stages of fish. There is the potential that the stressors can be additive, and each stressor may increase the susceptibility to the harmful effects of the other. Conversely, juvenile red snapper are common on mud bottoms in the western, northwestern, and north-central Gulf (i.e., off Texas through Alabama), and adults associate with natural and man-made hard bottom areas or areas with vertical relief. As long as the majority of the oil remains on the surface and offshore, the impacts to the demersal juveniles and adult red snapper may not be substantial.

Nevertheless, data are not available to demonstrate any specific adverse effects of the Deepwater Horizon MC252 oil spill on the red snapper resource. As a result, no information is available that indicates that the 2010 recreational red snapper quota should not be harvested. In response to the reduced fishing effort in the Gulf because of the Deepwater Horizon MC252 oil spill in the north-central Gulf, the temporary actions analyzed herein are intended to provide the authority for and harvest of the recreational quota, achieving the Council's designated OY of red snapper in the Gulf during 2010.

2.2.3 Protected Species

There are 28 different species of marine mammals that may occur in the Gulf. All 28 species are protected under the Marine Mammals Protection Act and six are also listed as endangered under the Endangered Species Act (ESA) (i.e., sperm, sei, fin, blue, humpback and North Atlantic right whales). 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 *Acropora* coral species (elkhorn [*Acropora palmata*] and staghorn [*A. cervicornis*]). Information on the distribution, biology, and abundance of these protected species in the Gulf is included in final EIS to the Council's Generic Essential Fish

Habitat amendment (GMFMC 2004b) and the October 2009 ESA biological opinion on the reef fish fishery (NMFS 2009). Marine Mammal Stock Assessment Reports and additional information are also available on the National Marine Fisheries Service Office of Protected Species website: http://www.nmfs.noaa.gov/pr/species/.

The Gulf reef fish fishery is classified in the 2010 Marine Mammal Protection Act List of Fisheries as Category III fishery (74 FR 58859). This classification indicates the annual mortality and serious injury of a marine mammal stock resulting from the fishery is less than or equal to 1% of the potential biological removal[1]. Dolphins are the only species documented as interacting with this fishery. Bottlenose dolphins may predate and depredate on the bait, catch, and/or released discards of the reef fish fishery.

All five species of sea turtles may be adversely affected by the Gulf reef fish fishery via incidental capture in hook-and-line gear (NMFS 2009). Incidental captures of sea turtle species occur in all commercial and recreational hook-and-line components of the reef fishery, but recent observer data indicate they are most frequent in the bottom longline component of the reef fish fishery. On an individual set basis, incidental captures may be relatively infrequent, but collectively, these captures sum to a high level of bycatch. Observer data indicate loggerhead sea turtles are the species most affected by the bottom longline component of the reef fish fishery. Mortality of sea turtles caught is particularly problematic in this fishery component, because many are dead or in poor condition upon retrieval of the gear as a result of forced submergence (i.e., drowning). Rulemaking from Amendment 31 constrained the bottom longline component of the fishery to limit sea turtle takes. All sea turtles caught on hook-and-line and 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, entangling, or otherwise still attached when they were released. Sea turtle release gear and handling protocols are required to reduce the amount of gear on released animals and minimize post-release mortality.

Smalltooth sawfish are also affected by the Gulf reef fish fishery, but to a much lesser extent than hardshell sea turtles. Smalltooth sawfish primarily occur in the Gulf off peninsular Florida. Although the long, toothed rostrum of the smalltooth sawfish causes this species to be particularly vulnerable to entanglement in fishing gear, incidental captures in the commercial and recreational hook-and-line components of the reef fish fishery are rare events. Only eight smalltooth sawfish are estimated to be incidentally caught annually, and none are expected to result in mortality (NMFS 2009). Fishermen in this fishery are required to follow smalltooth sawfish safe handling guidelines.

[1]The potential biological removal is 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

2.3 Social and Economic Environment

2.3.1 Description of the Fishery

A description of the recreational red snapper component of the reef fish fishery in the Gulf is contained in GMFMC (2010) and is incorporated herein by reference. Recreational fishing opportunities in many areas of the Gulf have been adversely affected by the recent Deepwater Horizon MC252 oil spill (see http://sero.nmfs.noaa.gov/deepwater_horizon_oil_spill.htm); however, more current data than contained in GMFMC (2010) reflecting these effects is not yet available.

2.3.2 Social Environment

A description of the social environment associated with the red snapper component of the recreational reef fish fishery in the Gulf is contained in GMFMC (2010) and is incorporated herein by reference.

2.4 Administrative Environment

2.4.1 Federal Fishery Management

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

Responsibility for federal fishery management decision-making is divided between the Secretary and eight regional fishery management councils that represent the expertise and interests of constituent states. Regional councils are responsible for preparing, monitoring, and revising management plans for fisheries needing management within their jurisdiction. The Secretary of Commerce (Secretary) is responsible for promulgating regulations to implement proposed plans and amendments after ensuring management measures are consistent with the Magnuson-Stevens Act and with other applicable laws summarized in Section 10. In most cases, the Secretary has delegated this authority to NOAA Fisheries Service.

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 NOAA Fisheries Service. The public is also involved in the fishery

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

Regulations contained within FMPs are enforced through actions of the NOAA's 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 have developed a 5-year "Gulf of Mexico Cooperative Law Enforcement Strategic Plan - 2006-2011."

2.4.2 State Fishery Management

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

3 MANAGEMENT ALTERNATIVES

This section provides the scientific and analytical basis for comparing the alternatives identified in Section 1.0. The direct, indirect, and cumulative effects on the physical, biological, social, economic, and administrative environments for each management alternative are described below. This section also describes: 1) Any unavoidable adverse effects resulting from the proposed action, 2) the relationship between short-term uses of man's environment and long-term productivity, and 3) any irreversible or irretrievable commitments of resources resulting from implementation of the proposed action.

CEQ regulations (40 CFR 1508.8) define direct effects as those "which are caused by the action and occur at the same time and place." Indirect effects are defined as those "which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." Cumulative effects are defined as "impacts on the environment that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such actions."

These temporary actions would be effective through the end of the 2010 calendar year. Because of the short duration of these actions, all effects of the actions on the environment are expected to be short-term. The following describes direct and indirect effects on the environment during the time period these temporary actions would potentially be effective.

3.1 Action 1: Authority to re-open the recreational fishing season for red snapper in the Gulf of Mexico.

Alternative 1 – No Action. Do not give NMFS authority to re-open the recreational red snapper fishing season after September 30, 2010, the end of the established recreational red snapper season.

Alternative 2 – Preferred. Give NOAA Fisheries Service the authority to re-open the fishing season after September 30, 2010, the end of the established recreational red snapper season.

Alternative 1 (No Action) would result in the recreational red snapper fishing season remaining closed until June 1, 2011, the start of the 2011 recreational fishing season. Approximately 2.3 mp of the 3.4-mp quota is estimated to remains for 2010. This alternative would not allow the recreational sector to harvest the red snapper resource at the Council's designated OY level. Currently, NOAA Fisheries Service has the authority to re-open the recreational red snapper fishing season through September 30, 2010. Given the administrative issues associated with developing a rulemaking to re-open prior to September 30, it is likely that such rulemaking could not be implemented until late September. This would leave limited time to harvest the recreational quota. More importantly, given the substantial current fishing area closure in the north-central Gulf and the expectation that this area will not be clear of oil impacts (and thus remain closed to all fishing) before September 30, any re-opening before September 30 would provide benefits mostly to those fishing participants who were in open areas during the June 1 through July 23 open fishing season.

Alternative 2 (Preferred) would provide a mechanism to increase flexibility to allow harvest of the recreational red snapper resource by providing two options for the recreational quota to be harvested: (1) Fishing could be allowed before and after the September 30 end of the fishing season, or (2) the fishing season could remain closed until (and beyond) the September 30 end of the fishing season and re-opened at a later date in the fall. Now that the well head is capped, the oil in the areas closed to fishing should dissipate. Nevertheless, as noted above, major areas of the north-central Gulf are still closed to fishing, and the Council's intent is to delay any re-opening until after September 30, 2010, to provide a greater probability some of this closed area may be re-opened, and fishing participants who have not been able to fish will be able to do so. After NOAA Fisheries Service and the FDA assure the seafood from a fishery closed area is scientifically tested as safe for consumption, then the area can be re-opened to fishing (see Section 3.2.11 for detailed information on the re-opening procedures). **Alternative 2 (Preferred)** establishes the authority to provide an opportunity for a broader geographic range of participants to harvest the remaining quota than does **Alternative 1 (No Action).**

3.2 Action 2. Re-open the recreational fishing season for red snapper in the Gulf of Mexico.

Alternative 1. No action. Do not re-open the recreational red snapper fishing season in 2010.

Alternative 2. Preferred Under existing regulatory authority, and authority established by Action 1, Preferred Alternative 2, re-open the recreational red snapper season:

option a: for consecutive days until the quota is projected to be met;
option b Preferred: for a series of weekends (Fri-Sun) until the quota is projected to be met.

Note: The Council requested, in association with Action 2 Preferred option b, to have NOAA Fisheries Service re-open the recreational red snapper season for eight consecutive weekends (Friday through Sunday) beginning October 1, 2010, and ending at 12:01 a.m. on November 22, 2010.

Alternative 1 (No Action) would result in the recreational red snapper fishing season remaining closed until June 1, 2011, the start of the 2011 recreational fishing season. Approximately 2.3 mp of the 3.4-mp quota is estimated to remains for 2010. This alternative would not allow the recreational sector to harvest the red snapper resource at the Council's designated OY level.

Alternative 2 (Preferred) would allow the recreational sector the opportunity to harvest the remaining 2.3 mp of the recreational quota, either from an opening for consecutive days (**option a**) or opening only on weekends (**Preferred option b**). Either option for **Alternative 2 (Preferred)** would be biologically and ecologically neutral in terms of providing the opportunity to harvest the allowable catch established by the stock rebuilding plan, and would achieve the Council's designated OY for the fishery, thus enhancing social and economic benefits to the fishery. For reasons stated under **Action 1** above, the Council requested that NOAA Fisheries Service not re-open the fishing season prior to September 30 to increase the likelihood of

allowing fishing participants in different ports and different states to accrue some benefits of the re-opening as well. The Council considered two options for a re-opening. Under **option a**, the fishing season would open and remain open on consecutive days for a time period under which the quota would be projected to be caught. Analysis by NOAA Fisheries Service (see **Appendix A**), projected that, under this scenario, the fishing season could be as long as 39 days. Under **Preferred option b**, and based on the Council's selection of times (based on the information provided in **Appendix A**), the fishing season would be open on 8 consecutive weekends (Friday through Sunday) beginning October 1, 2010, and would close at 12:01 a.m. on November 22, 2010, for a total of 24 days. The discrepancy in numbers of days between the two options occurs because more than 60 percent of recreational fishing effort occurs on weekends. Allowing fishing during week days would allow additional overall days. Nevertheless, the Council selected weekends only as a means to provide a greater opportunity to go fishing for people who must work during the normal work week.

3.3 Environmental Consequences

3.3.1 Direct and Indirect Effects on the Physical Environment

Direct and indirect effects on the physical environment by the red snapper component of the reef fish fishery have been discussed in detail in Amendments 22 and 27/14 (GMFMC 2004a and 2007) and are incorporated here by reference. The **Action 1** alternatives, which are administrative in nature, would (or would not) provide the authority to change the timing of the recreational season, but would not directly affect the physical environment. Subsequent implementation of a re-opening, as proposed in **Action 2**, would not alter the manner in which the fishery is conducted, other than the potential timing of fishing activities, nor does it change the allowable harvest. It simply changes the time frame under which the quota may be harvested. The primary gear used by the recreational sector is hook-and-line gear. Vertical line gear has the potential to snag and entangle bottom structures. Weights used to drop the bait to the bottom have the potential to strike and damage reef structure. Each individual gear has a very small footprint and thus only a small potential for impact, but the cumulative impact from the overall large amount of gear being placed in the water increases the potential for impact. The line and weights used by this gear type also can cause abrasions (Barnette 2001). Additionally, vertical line vessels often anchor when fishing, adding to the potential damage of the bottom at fishing locations. Vertical lines that become entangled in the habitat structure can lead to long-term indirect effects if marine life becomes entangled or the gear becomes overgrown with algae (Hamilton 2000; Barnette 2001). Circle hooks are required in the reef fish fishery when using natural baits. Because of the design of circle hooks, this gear is less likely to snag bottom habitat than other hook types.

As noted in Section 2.1, oil on the surface of the water could restrict the normal process of atmospheric oxygen mixing into and replenishing oxygen concentrations in the water column. In addition, microbes in the water that break down oil and dispersant also consume oxygen; this could lead to further oxygen depletion. It is also possible that zooplankton that feed on algae could be negatively impacted, thus allowing more of the hypoxia-fueling algae to grow.

As of this writing, limited oil remains on the surface and most is offshore; therefore, as discussed in more detail in Section 2.2, the impacts to demersal reef fish habitat may be minor; impacts

would be limited to areas where pelagic eggs and larvae are found. However, if the oil reaches the bottom or nearshore/inshore areas, the impacts on habitat will increase. At this time, there is no definitive information regarding the overall impact to the nearshore and offshore physical environment.

The regulations at 50 CFR 622.43(c) state the Assistant Administrator for NOAA Fisheries Service ***may*** announce a re-opening, if the quota has not been met. There is no requirement for a re-opening if it is subsequently determined the quota was not met. However, NOAA Fisheries Service currently only has authority to re-open the recreational red snapper fishing season through September 30. Because of time constraints required to implement rulemaking to re-open the fishing season, **Action 1 Alternative 1 (No Action)** would essentially result in the recreational red snapper fishing season remaining closed until June 1, 2011, the start of the 2011 recreational fishing season. This alternative could have slight beneficial effects on the physical environment as fishing effort is constrained to the 53-day season (June 1 through July 23). As noted above, each individual fishing effort leaves a small footprint, but cumulatively, the impacts are larger. Reducing that effort footprint, by keeping the recreational season closed after June 23, could have at least short-term benefits to the physical environment.

Action 1 Alternative 2 (**Preferred**) would allow the re-opening of the recreational fishing season during a different time frame than the currently established June 1 through September 30 fishing season. Thus, this alternative would indirectly affect the physical environment. Any subsequent re-opening allowed because of **Action 1 Alternative 2 (Preferred)** would be expected to have the greater impacts on the physical environment when compared with **Alternative 1 (No Action)** because it would allow for greater levels of fishing effort and more opportunities for gear interactions with habitat. However, any increases in direct or indirect effects on the physical environment are expected to be small because a large portion of the catch is taken from artificial structures (i.e., artificial reefs, oil and gas platforms), the primary gear used is hook-and-line, and the directed recreational red snapper effort represents only a portion of the overall reef fish fishery in the Gulf (SEDAR 7 2005).

Action 2 Alternative 1 would have the same direct and indirect effects on the physical environment as **Action 1 Alternative 1**, and are not repeated here. **Action 2 Alternative 2** (**Preferred**) could have increased impacts to localized habitats in areas currently open to fishing (western and southeastern Gulf) from fishing gear and fishing effort if the fishing season is re-opened, but substantial portion of the fishery closed area remains intact. Fishing effort would be concentrated in these open areas from either increased/shifted effort or because of the extended lengths of time the fishing season is open, resulting in localized impacts to habitat. In addition, **option a** could provide a greater probability of physical environment impacts because it allows for more fishing days than **Preferred option b**. Even so, given effort is greater on weekends than during weekdays, the overall effort to harvest the quota may be similar between the two options, and thus would result in similar impacts under either **option a** or **Preferred option b**. On the other hand, **Preferred option b** could result in less overall physical impacts by providing an intermittent closure of fishing, and thus allowing some recovery of the physical environment prior to the next weekend re-opening. Several habitat areas of particular concern, marine sanctuaries, and marine reserves already exist in the Gulf where red snapper occur, providing additional protection to habitat and reducing impacts to the physical environment.

3.3.2 Direct and Indirect Effects on Biological/Ecological Environment

Red snapper demonstrate the typical life history pattern for managed reef fish species as summarized in Section 2.2, Amendment 22 (GMFMC 2004a), and GMFMC (2004b). In general, both eggs and larval stages are planktonic. Juvenile and adult red snapper are typically demersal and are usually associated with hard bottom, although adult red snapper may occur throughout the water column, including surface waters.

Because of the Deepwater Horizon MC252 oil spill, NOAA Fisheries Service had, as of mid-July, closed approximately 35 percent of the Gulf to all fishing. Subsequently, some areas have been re-opened following the procedures outlined in Section 3.3.11. This remaining fishing closure, centered in the north-central Gulf, has been and will continue to be adjusted as necessary to reflect past, present, and projected future areas affected by the oil spill. Oil is dispersed on the surface as well as deep within the water column, but since the well head was capped, oil is beginning to disappear from some areas. The Deepwater Horizon MC252 oil spill may have direct negative impacts on red snapper egg and larval stages. Red snapper spawn during summer and fall. Oil still present in surface waters could affect the survival of eggs and larvae. Anthropogenically-induced natural mortality on larvae caused by the oil spill could result in declines in recruitment in future year classes. As noted in Section 3.3.1, effects on the physical environment such as low oxygen and the inter-related effects that culminate and magnify through the food web could lead to impacts on the ability of larvae and post-larvae to survive, even if they never encounter oil. If realized, these effects would be expected to negatively impact the rebuilding plan for this overfished species, as well as have short- and potentially long-term economic impacts on commercial and recreational fisheries in the Gulf. In addition, effects of oil exposure may not always be lethal, but can create sub-lethal effects on the eggs, larva, and early life stages of fish. There is the potential that the stressors can be additive, and each stressor may increase the susceptibility to the harmful effects of the other. For example, brown shrimp exposed to polycyclic aromatic hydrocarbons (PAHs), a common pollutant associated with oil, have been shown to induce stress at a higher level of dissolved oxygen relative to clean environments.

Juvenile red snapper are common on mud bottoms in the western, northwestern, and north-central Gulf (i.e., off Texas through Alabama), and adults associate with natural and man-made hard bottom areas or areas with vertical relief. As discussed in Section 2.2, as long as the majority of the oil remains on the surface and offshore, the impacts to the demersal juveniles and adult red snapper may not be substantial. However, as the oil or tar balls reach the bottom or nearshore/inshore areas, the fish could become trapped in oil-contaminated waters, resulting in high anthropogenically-induced natural mortality. 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.

In regard to the proposed action, **Action 1** is an administrative action and would have only indirect effects on the biological and ecological environment. **Action 1 Alternative 1 (No Action)** would indirectly provide a greater level of biological and ecological benefits to the red snapper stock as harvest would be restricted to the originally established 53-day season, June 1

through July 23, and subsequently to any possible re-opening in September, but only through September 30. **Action 1 Alternative 1 (No Action)** would restrict fishing mortality for the year (except in Texas territorial waters, which are open year-round) allowing more fish to survive, providing some stock rebuilding benefits. This alternative would also provide a greater protection from overfishing should the stock projections be optimistic or should the Deepwater Horizon MC252 oil spill lower stock productivity through anthropogenically-induced natural mortality to all or some life stages of red snapper. By contrast, **Action 1 Alternative 2 (Preferred)** provides the authority that indirectly would create the greatest opportunity to harvest the remainder of the 3.403-mp recreational quota. The administrative authority granted by **Action 1 Alternative 2 (Preferred)**, although having only an indirect effect to the biological environment, would result in a biologically and ecologically neutral situation in terms of harvesting the allowable catch established in accordance with the stock rebuilding plan. Harvesting the full quota would achieve the Council's designated OY for the fishery. However, even though the Deepwater Horizon MC252 well head has been capped, it is likely that certain portions of the north-central Gulf will not be re-opened prior to the Council's existing September 30 end of the fishing season. Thus, any re-opening prior to September 30, as could be accomplished under either alternative of **Action 1**, would likely mean only the western (western Louisiana and Texas) and southeastern (west Florida) Gulf fishery participants would have the opportunity to harvest the remaining quota. This could put additional stress on localized populations of red snapper. On the other hand, **Action 1 Alternative 2 (Preferred)** would provide the authority to NOAA Fisheries Service to delay any re-opening of the recreational season until after September 30. This opportunity may be important if oil persists in the north-central Gulf through September, but dissipates later in the year. Given the Deepwater Horizon MC252 well head has been capped, the north-central Gulf is more likely to be re-opened to fishing by the last quarter (October-December), allowing fishermen in this area to participate in the fishery as well, increasing the opportunity to harvest the entire quota, but distributing that fishing mortality over a larger portion of the stock. Conversely, under a worse-case scenario where the currently capped well begins leaking oil again, delays in re-opening the fishing season would mean even larger areas could be closed to fishing, leading to increased biological impacts to the red snapper stock from additional anthropogenically-induced natural mortality, plus fishing mortality from areas that continue to be open to fishing.

Unlike **Action 1**, **Action 2** has direct effects on the biological and ecological environment, but the effects from both actions are similar. **Action 2 Alternative 1 (No Action)** would directly provide the greatest level of biological and ecological benefits to the red snapper stock as harvest would be restricted to the originally established 53-day season, June 1 through July 23. **Action 2 Alternative 1 (No Action)** would halt directed fishing mortality for the year (except in Texas territorial waters, which are open year-round) allowing more fish to survive, providing stock rebuilding benefits. This alternative would also provide the greatest protection from overfishing should the stock projections be optimistic or should the Deepwater Horizon MC252 oil spill lower stock productivity through anthropogenically-induced natural mortality to all or some life stages of red snapper. Similar to the discussion under Action 1, **Action 2 Alternative 2 (Preferred)** would create the greatest opportunity to harvest the remainder of the 3.403-mp recreational quota. **Action 2 Alternative 2 (Preferred)** would result in a biologically and ecologically neutral situation in terms of allowing the harvest of the allowable catch established in accordance with the stock rebuilding plan. Harvesting the full quota would achieve the

Council's designated OY for the fishery. However, even though the Deepwater Horizon MC252 well head has been capped, it is likely that certain portions of the north-central Gulf will not be re-opened prior to the Council's prescribed September 30 end of the fishing season. Thus, any re-opening prior to September 30 would likely mean only the western (western Louisiana and Texas) and southeastern (west Florida) Gulf fishery participants would have the opportunity to harvest the remaining quota. This could put additional stress on localized populations of red snapper. On the other hand, with implementation of **Action 1 Alternative 2 (Preferred)**, NOAA Fisheries Service would have the authority to delay any re-opening of the recreational season until after September 30, as per the Council's intent. This opportunity may be important if oil persists in the north-central Gulf through September, but dissipates later in the year. Given the Deepwater Horizon MC252 well head has been capped, the north-central Gulf is more likely to be re-opened to fishing by the last quarter (October-December), allowing fishermen from this area to participate in the fishery as well. Delayed re-opening increases the opportunity to harvest the entire quota, while distributing that fishing mortality over a larger portion of the stock, and reduces the possibility of localized population depletions. Conversely, under a worse-case scenario where the currently capped well begins leaking oil again, even larger areas could be closed to fishing, and could lead to increased biological impacts to the red snapper stock from additional anthropogenically-induced natural mortality, coupled with fishing mortality from areas that remain open to fishing.

Indirect and inter-related effects of these alternatives, especially in concert with the Deepwater Horizon MC252 oil spill, on the biological and ecological environment are not well understood. Changes in the population size structure as a result of shifting fishing effort to specific geographic segments of the red snapper population, combined with the anthropogenically-induced natural mortality that may occur from the impacts of the oil spill, could lead to changes in the distribution and abundance of the red snapper stock throughout the Gulf. The impacts on the food web from phytoplankton, to zooplankton, to baitfish, to top predators may be significant in the future. Impacts to red snapper from the oil spill will similarly impact other species that may be preyed upon by red snapper, or that might benefit from a reduced snapper stock as well. Species likely to be affected by changes in red snapper abundance the most include: vermilion snapper, gray triggerfish, and gag, which all co-occur with red snapper.

3.3.3 Direct and Indirect Effects on the Economic Environment

Available data have not demonstrated specific adverse effects of the Deepwater Horizon MC252 oil spill on the red snapper resource. As a result, no information is available that indicates that the 2010 recreational red snapper quota should not be harvested. The current rebuilding schedule and associated sector quotas, recreational and commercial, are based on the assumption, given assessed biological conditions and legal obligations, that they will achieve maximum economic and social benefits. As a result, a quicker rebuilding schedule would not be expected to result in increased benefits. In the absence of biological harm and the need for beneficial mitigation, while not harvesting the quota may accelerate rebuilding of the resource, this acceleration would not be expected to result in greater economic and social benefits, as previously stated. No information is available that indicates reduced harvests are necessary to maintain the current rebuilding schedule, i.e., mitigate biological harm resulting from the oil spill. Therefore, the following assessment is based on the assumption that no economic benefits,

either in the short term or long term, would accrue to not harvesting the Gulf of Mexico recreational red snapper quota in 2010.

Action 1 is an administrative action and would not be expected to result in any direct economic effects on fishermen or associated shoreside businesses. However, **Action 1** would be expected to result in indirect economic effects associated with the administrative options that **Action 1** would enable. Because the entire 2010 recreational red snapper quota was not harvested during the June 1 through July 23 fishing season, **Action 1 Alternative 1 (No Action)** would be expected to result in reduced economic benefits due to the continued prohibition on the harvest of red snapper. Although fishing for and harvest of other species could and would be expected to continue, and red snapper fishermen would have the opportunity to shift their effort to these other species, the harvest of red snapper would be prohibited for the remainder of the year despite the quota not being met. Target shift to other species would help maintain economic activity at associated businesses. However, the substitution of a less desirable target species would result in reduced consumer surplus to affected anglers.

It should be noted that this projected reduction in economic benefits would be expected to occur regardless of whether the recreational red snapper season is re-opened prior to September 30, which is possible under current authority. While re-opening the season prior to September 30 would allow more red snapper fishing trips to be taken and reduce the amount of unharvested quota, the administrative process and delay required to re-open the fishery would not be expected to result in an opening of sufficient duration to allow the full quota to be harvested, resulting in reduced economic benefits relative to harvesting the entire quota. Reducing other restrictions, such as increasing the bag limit or reducing the minimum size, could also not be accomplished within the available time frame. Further, the Council believes that the economic benefits of red snapper harvest after September 30 may be greater than harvest prior to September 30 if the delay results in re-opening of waters previously closed as a result of the Deepwater Horizon MC252 oil spill. This possibility is discussed in more detail below with respect to **Alternative 2 (Preferred).** As a result of these limitations and expectations, and in summary, **Alternative 1 (No Action)** would be expected to result in reduced economic benefits because the full quota would not be expected to be harvested and because harvests occurring after September 30 may have greater economic value to fishermen and associated businesses.

Action 1 Alternative 2 (Preferred) would be expected to result in greater economic benefits than **Alternative 1 (No Action)** by providing authority to re-open the recreational red snapper fishery, which would allow continued harvest of the remaining red snapper quota after September 30 until the quota is caught or until the end of the fishing year, December 31. Two substantive differences exist between **Alternative 2 (Preferred)** and **Alternative 1 (No Action)**. The first substantive difference is that **Alternative 2 (Preferred)** would potentially allow for a longer period of time to harvest the remaining quota, increasing the likelihood that the full economic benefits of harvesting the quota can be realized. **Alternative 2 (Preferred)** could provide as much as three additional months to harvest the remaining red snapper quota (October through December), whereas **Alternative 1 (No Action)** would be expected to allow a re-opening of less than one month (some portion of September) because of the time required to complete the administrative process for re-opening.

The second substantive difference between **Alternative 2 (Preferred)** and **Alternative 1 (No Action)** is that the temporal difference for when re-opening could occur under the two alternatives (Summer versus Fall) could provide fishing opportunities to anglers in different states or ports, thereby affecting both the magnitude and distribution of economic benefits. As previously discussed, certain areas of the Gulf of Mexico have been closed to fishing as a result of the Deepwater Horizon MC252 oil spill and recreational fishing demand in other areas is believed to have declined due to environmental concerns. Although delaying the re-opening increases the opportunity for the area adversely affected by the spill to expand (as a result of either direct closure or indirect decreased demand), the reverse is also true; given that the spill has stopped and continued contamination ceased, a cessation of new contamination in combination with clean-up, weather and oceanographic influences, and natural cleansing, could result in closed waters being re-opened within the current calendar year. As a result, delay in the re-opening imparts the possibility that areas currently closed to harvest may re-open (or demand recover in areas not directly affected) and fishermen who have been prevented from fishing will be given the opportunity to fish. Although the same amount of remaining quota would be available under both alternatives, there is a greater likelihood under **Alternative 1 (No Action)** that unharvested quota would continue to be available to anglers in areas not previously closed or otherwise adversely affected by the oil spill. Therefore, **Alternative 1 (No Action)** may simply result in a lengthening of the season in the same areas for the same anglers rather than expand opportunities for other anglers, as may occur under **Alternative 2 (Preferred)**.

Although lengthening the season in areas not adversely affected by the oil spill would result in an economic gain for fishermen and associated business and communities in these areas, as may occur under **Alternative 1 (No Action)**, it may be possible to increase the economic benefits in the fishery by expanding opportunities to anglers who have been subjected to reduced access to the resource, as may occur under **Alternative 2 (Preferred)**. Fishermen who have been prevented from fishing may value the opportunity to fish under a re-opening more than fishermen in areas that have not been affected. Further, the business activity generated by these fishermen may provide greater relative benefits as they could help reverse the decline in business activity that resulted from the closures. Potential loss of business activity in previously open areas due to broader sharing of remaining quota (with areas previously closed) under **Alternative 2 (Preferred)** would not be expected to be as important to the financial viability of the respective businesses (businesses adjacent to open areas). These businesses likely would have been able to experience more normal business patterns (compared to businesses in communities adjacent to closed areas) prior to the re-opening and the fisheries for other species would still remain open. It should not be ignored, however, that delay in re-opening the fishing season could result in wider contamination and more expansive fishery closed areas, particularly if the well head begins leaking again. Additionally, other conditions, such as hurricanes or tropical storms, could stir up settled oil and distribute the oil more broadly across the Gulf, such that the economic benefits of re-opening earlier would be foregone. Also, the availability of support payments or other financial aid has not been factored into this discussion because of the absence of relevant information. Any aid payments would reduce, though not eliminate, the importance of renewed business activity to the economic viability of affected businesses.

It is also noted that the discretion to re-open the recreational season prior to September 30 also would technically exist under **Alternative 2 (Preferred),** allowing for the possibility of a double

re-opening ("double" is used to refer to re-opening under two authorities, existing authority and the authority that would be established by **Alternative 2 (Preferred)**; actual re-opening could be continuous, extending from before September 30 to after September 30 without an "interrupting" closure). However, because of the data delay issues discussed above and the intent to provide fishing opportunities to fishermen in areas that have been subjected to oil closures, a re-opening prior to September 30 is unlikely to occur.

In summary, a comparison of the effects of **Action 1 Alternative 1 (No Action)** with those of **Alternative 2 (Preferred)** reduces to: (1) How the amount of available harvest time would be expected to vary between the two alternatives; (2) whether the harvests would be distributed over different groups of fishermen; and (3) whether some fishermen and businesses might value harvest rights more than others. **Alternative 2 (Preferred)** would provide a longer period of time to harvest the remaining quota than **Alternative 1 (No Action)** because the available period of time is longer. **Alternative 2 (Preferred)** may also increase the opportunity for fishermen who have experienced reduced access to red snapper to regain access to the resource compared to **Alternative 1 (No Action)**. Because these fishermen have been denied access, they may value recovered access more than other anglers, resulting in increased economic benefits from the harvest of the same amount of quota. Further, recovered business activity in areas previously subject to oil-related closure may be more important than business activity in areas that would continue to be open to fishing for other species. Alternatively, although increased economic benefits may be possible under **Alternative 2 (Preferred)**, delaying re-opening until after September 30 increases the possibility of a broader area of contamination, such that no re-opening, or a reduced re-opening, may occur, with the forfeiture of some or all of the economic benefits associated with re-opening. Because of uncertainty of the actual target shift that may occur, or possible increased values, it is not possible to project meaningful estimates of any expected change in economic activity or economic value (producer or consumer surplus) that may occur under **Alternative 1 (No Action)** or **Alternative 2 (Preferred)**, or any expected differences between the two alternatives. Also, it should be recalled and noted that because **Action 1** is an administrative action, all of the effects described above are indirect effects associated with any actual re-opening and not direct effects of bestowing administrative authority.

The indirect effects discussed with respect to **Action 1** above would be the direct effects of **Action 2**. These effects are presented in Tables 3.3.3.1 and 3.3.3.2. In summary, re-opening the recreational red snapper season and harvesting the remaining quota would be expected to result in approximately 17,500 red snapper target trips, approximately $9.3 million (2008 dollars) in consumer surplus, and approximately $4.4 million in net operating revenue to for-hire vessels (Table 3.3.3.1). The expenditures associated with the private and charterboat trips would be expected to support approximately 188 full-time equivalent jobs, approximately $18.4 million (2008 dollars) in output impacts (gross business sales), and approximately $10.4 million (2008 dollars) in value added impacts (difference between the value of goods and the cost of materials or supplies). Comparable totals for the headboat sector are not available. **Action 2 Alternative 1 (No Action)** would not allow these benefits and economic activity to be received by fishermen and associated businesses because the season would not be re-opened in 2010, either before or after September 30, the remaining red snapper quota could not be harvested, and additional red snapper fishing trips, and associated expenditures, would not be expected to occur.

Action 2 Alternative 2 (Preferred) would be expected to result in generating these economic benefits and economic activity because it would re-open the season in 2010, allowing increased numbers of red snapper fishing trips and the harvest of some portion or all of the remaining red snapper quota.

Table 3.3.3.1. Estimated target trips and economic value (2008 dollars) associated with harvesting the remaining 2010 recreational red snapper quota.

	Mode			
	Private	Charterboat	Headboat	Total
Trips	138,000	27,600	6,900	172,500
Consumer Surplus	$7,452,000	$1,490,400	$372,600	$9,315,000
Net Operating Revenue	-	$4,084,800	$338,100	$4,422,900

Source: NMFS SERO.

Table 3.3.3.2. Estimated target trips and economic activity (2008 dollars) associated with harvesting the remaining 2010 recreational red snapper quota.

	Mode
	Private/Rental Mode
Trips	138,000
Output Impact	$8,379,517
Value Added Impact	$4,604,880
Jobs	81
	Charter Mode
Trips	27,600
Output Impact	$10,033,860
Value Added Impact	$5,797,073
Jobs	107
	Headboat
Trips	6,900
Output Impact	na
Value Added Impact	na
Jobs	na
	All Modes
Trips	172,500
Output Impact	$18,413,377
Value Added Impact	$10,401,953
Jobs	188

Source: NMFS SERO.

For the purpose of the assessment of the potential differences between the options under **Alternative 2 (Preferred)**, it is assumed that the resultant re-openings that would occur under the two options are equivalent in terms of the amount of red snapper harvested and the number of increased individual angler trips that would be taken, and the economic effects provided in Tables 3.3.3.1 and 3.3.3.2 are based on this assumption. Further, it is assumed that any re-opening would be fixed, i.e., a specific period of re-opening would be announced and no subsequent extension or modification (for example, as a result of adverse weather interrupting

the ability to fish in some areas) would occur in 2010 because of the time constraints of the administrative regulatory process. In essence, it is assumed that both options would result in full harvest of the remaining quota and an equal number of individual angler red snapper target trips. As discussed in Section 3.2, while the two options result in different totals of re-opened fishing days (more total consecutive days than total weekend days), this is due to the higher level of effort, as would be expected, on weekend days (Friday through Sunday) versus week days (Monday through Thursday).

Comparison of the expected effects of the two options involves examination of the likelihood that both options would result in the same recreational effort and harvest and consideration of how the distribution of the benefits may vary between the options. Essentially, these considerations equate to an examination of whether the options affect the likelihood that the forecast benefits will be realized (same harvest and effort) or whether the benefits are under- or over-stated because average benefits may vary by the day of the week (weekday fishermen value their fishing trip differently, or have different expenditure patterns, than weekend fishermen).

With respect to the likelihood that both options would result in the same harvest and recreational effort, definitive determinations on this issue cannot be made with available data. A consecutive-day re-opening (**Alternative 2 option a)** reduces the likelihood of external factors, such as adverse weather events (additional disruption related to oil contamination, unrelated to weather conditions, could also occur), disrupting fishing opportunities during the re-opening by shortening the total period of time over which the open season is distributed. However, should an adverse event occur, a consecutive-day re-opening reduces the opportunity for recovery from the event and fishing at a later date. For example, hypothetically, if the season were to re-open the entire month of October under a consecutive-day re-opening scenario versus re-opening all weekends in October and November under a weekend re-opening scenario, the loss of the last week in October due to a tropical storm would allow no opportunity for recovery of "lost" red snapper fishing trips under the consecutive-day scenario, whereas these trips could be re-scheduled, in some instances for some anglers, to weekends in November under the weekend re-opening scenario. As a result, from this perspective, it could be argued that the weekend re-opening approach, **Alternative 2 Preferred option b**, is more flexible than the week-day approach and, as such, would be expected to generate greater economic benefits than **Alternative 2 option a**. However, the ability to harvest red snapper any day of the week is a more flexible option than being limited to harvesting red snapper on weekends. As a result, **Alternative 2 option a** would be more flexible from this perspective. It can likely be concluded that some form of external disruption will occur during either period of re-opening. When any disruption will occur and what flexibility will exist to reschedule trips is unknown (i.e., will the disruption occur during the beginning or middle of the re-opening allowing trips to be made up later during the re-opening, or will it occur at the end of the re-opening, resulting in a net loss of trips), so a definitive determination of which approach would result in the best outcome cannot be provided. In summary, from the perspective of flexibility, if no disruption occurs or occurs early enough within the re-opening to reschedule trips, the flexibility to fish any day of the week may result in greater economic benefits than restricting fishing to weekends. Otherwise, **Alternative 2 Preferred option b** would be expected to result in greater economic benefits associated with fishing flexibility.

With respect to the distribution of benefits, the consideration is a variation of the temporal issue discussed for **Action 1.** For **Action 1,** the issue was fishermen in areas affected by closures may value access to red snapper more than anglers who were able do fish during the original open season. If fishermen who live in areas adjacent to waters previously closed due to the oil spill value access to red snapper more than anglers who were not prevented from harvesting red snapper, delay in re-opening would be expected to both distribute the unharvested quota and associated benefits to a different group of anglers as well as result in an increase in total benefits. Associated shoreside businesses in these previously affected areas may also get greater benefit from fishing related expenditures. Under **Action 2 Alternative 2 (Preferred)**, the issue is whether weekend anglers value the ability to harvest red snapper more than week-day anglers. If weekend anglers value the ability to harvest red snapper more than week-day anglers, **Alternative 2 Preferred option b** would be expected to result in greater economic benefits than **Alternative 2 option a**. Conversely, **Alternative 2 option a** would be expected to result in greater economic benefits if week-day angler value the ability to harvest red snapper more than weekend anglers. Similar considerations arise with respect to expenditure patterns and importance of these expenditures to the appropriate businesses. While both are relevant considerations (valuation and expenditure patterns), it is unknown whether any difference exists between weekend and week-day anglers. The Council's selection of **Preferred option b** suggests an expectation of higher benefits associated with weekend openings, but this cannot be empirically determined with available information.

3.3.4 Direct and Indirect Effects on the Social Environment

The expected social effects of the alternatives considered would be expected to be consistent in direction with the expected economic effects discussed in Section 3.3.3. In addition to the social effects on fishermen and associated businesses and communities that would accrue to fishermen allowed to or denied the opportunity to harvest the available quota, additional social effects would accrue to the perception of rational management or decision-making. Given that available quota remains and it has not been demonstrated that reduced harvests are necessary to protect the resource and preserve the current rebuilding path because of resource damage by the oil spill, failure to grant re-opening authority (**Action 1 Alternative 1 (No Action)**) or exercise re-opening authority (**Action 2 Alternative 1**) may be viewed by the public as irrational and irresponsible management. Granting such authority (**Action 1 Alternative 2 (Preferred)**) and exercising it (**Action 2 Alternative 2 (Preferred)**) may be seen as the appropriate and necessary management actions. Conversely, some may think that in light of previous quota over-runs by the recreational sector, uncertainty of long-term effects of the oil spill, and for the sake or regulatory simplicity that no action is the best course of action.

Nevertheless, consistent with the discussion on the expected economic effects of the proposed actions and alternatives, **Action 1 Alternative 1 (No Action)** would be expected to result in a loss in social benefits to fishermen and associated businesses and communities because it would be expected to prevent the fishery from being allowed to harvest the red snapper quota (recall that any re-opening prior to September 30 would not be expected to be sufficient to allow harvest of the full quota). **Alternative 2 (Preferred)** would be expected to result in increased social benefits because it allow the season to be re-opened and remaining quota be harvested.

Action 2 Alternative 1 (No Action) would be expected to have greater adverse social effects as **Action 1 Alternative 1 (No Action)** because it would both prevent any re-opening at all in 2010 (even before September 3)) and present a logical inconsistency if **Action 1 Alternative 2 (Preferred)** is implemented (why grant the authority to re-open the season and then not re-open?).

The intent of **Action 2 Alternative 2 (Preferred)** is to maximize the social and economic benefits of harvesting the quota. Thus, the implicit expectation is that these benefits would be maximized by a combination of both allowing the full quota to be harvested and by making any remaining quota potentially available to fishermen who may place a greater value on the resource. From the perspective of harvesting the full quota, as discussed in Section 3.3.3, both options are assumed to support taking the quota and allowing the same number of red snapper target trips. For a discussion of the likelihood of this assumption being true and the distributional considerations of the two options, see Section 3.3.3. Beyond this discussion, it is simply emphasized that individual would be expected to fish when and where they do based on personal situations and preferences. Some have greater flexibility to fish than others beyond the constraints imposed by weather or other considerations (such as for-hire service availability). Some people are retired and can choose to fish any day of the week. Some work week-days, while others work weekends. Issues of coordination with others may arise. Even where time conflicts don't exist, some fishermen may prefer the less congested conditions of week-day fishing over weekend fishing. In summary, social effects arise that go beyond the issue of simply allowing red snapper trips (and harvest) to occur. Similar to the discussion on the expected economic effects, assuming both options result in the same amount of red snapper trips and harvest, it cannot be determined which option would be more flexible and produce the most satisfaction among anglers. Again, however, if the Council's selection of **Alternative 2 Preferred option b** is accepted as best fitting fishermen's attitudes and expectations, then this alternative would be expected to result in the best social outcome.

A discussion of the Environmental Justice (E.O. 12898) considerations is provided in Section 6.

3.3.5 Direct and Indirect Effects on Administrative Environment

The two actions provide different effects on the administrative environment. **Action 1 Alternative 1 (No Action)** and **Action 2 Alternative 1** would reduce the burden on NOAA Fisheries Service. If the fishing season is closed until the beginning of the 2011 fishing season, NOAA Fisheries Service would not need to take action to re-open the fishery, or subsequently have to make further projections regarding the level of harvest for the 2010 calendar year. **Action 1 Alternative 2 (Preferred)** and **Action 2 Alternative 2 (Preferred)** would increase effects to the administrative environment. **Action 1 Alternative 2 (Preferred)** would alter the current regulations to provide additional authority to NOAA Fisheries Service to allow harvest during a period of the calendar year previously outside the established recreational red snapper fishing season. This would require effort to subsequently monitor harvest levels during a later time period. The biggest effect to the administrative environment would be in regard to law enforcement and compliance with the harvesting restrictions. To that end, **Action 2 Alternative 2 Preferred option b** would have the largest effect. The repeated weekday closures and open weekends would require additional enforcement monitoring by NOAA Fisheries Service Office of Law Enforcement and their state partners. The enforcement and administrative environments

were recently enhanced with increased frequency of surveying the fishing efforts of the for-hire sector, as well as more focused creel surveys for the private recreational sector. The increased survey frequency should provide more timely accumulation of catch and effort data, with the intent of providing more accurate quota monitoring, which would aid NOAA Fisheries in closing fisheries in a timely manner, and aid enforcement in supporting closure requirements.

3.3.6 Cumulative Effects

The cumulative effects from the red snapper rebuilding plan have been analyzed in Amendment 22 and 27/14, and cumulative effects to the reef fish fishery have been analyzed in Amendments 30A, 30B, and 31, and are incorporated here by reference. Short-term negative impacts on the fishery's socioeconomic environment have occurred and are likely to continue due to the need to limit directed harvest and reduce bycatch mortality. These negative impacts can be minimized by selecting measures that would provide the least disruption to the fishery while maintaining total allowable catch consistent with the rebuilding plan. To that end, if the recreational quota has not been met, the proposed action could have a negative biological impact compared to "no action" whereby the recreational fishing season remains closed, which would reduce overall fishing mortality. Re-opening the fishery to allow harvest of the entire quota, combined with possible increased natural mortality to the stock from the oil spill, could negatively impact the stock. Nevertheless, absent any firm information regarding the impacts to the red snapper stock from the Deepwater Horizon MC252 oil spill, the proposed action to provide the authority to allow the recreational sector to harvest the established quota would minimize socioeconomic impacts and achieve the Council's designated OY for the fishery.

There is a large and growing body of literature on past, present, and future impacts of global climate change induced by human activities. The Intergovernmental Panel on Climate Change (2007) has summarized much of this information. Some of the likely effects commonly mentioned are sea level rise, increased frequency of severe weather events, and change in air and water temperatures. The Environmental Protection Agency's climate change webpage provides basic background information on these and other measured or anticipated effects. Global climate changes could have significant effects on all Gulf fisheries; however, the extent of these effects is not known at this time. Possible impacts include temperature changes in coastal and marine ecosystems that can influence organism metabolism and alter ecological processes such as productivity and species interactions; changes in precipitation patterns and a rise in sea level which could change the water balance of coastal ecosystems; altering patterns of wind and water circulation in the ocean environment; and influencing the productivity of critical coastal ecosystems such as wetlands, estuaries, and coral reefs (Kennedy et al. 2002). Modeling of climate change in relation to the northern Gulf hypoxic zone may exacerbate attempts to reduce the area affected by these events (Justic et al. 2003). It is unclear how climate change would affect reef fishes, and likely would affect species differently. Climate change can affect factors such as migration, range, larval and juvenile survival, prey availability, and susceptibility to predators. In addition, the distribution of native and exotic species may change with increased water temperature, as may the prevalence of disease in keystone animals such as corals and the occurrence and intensity of toxic algae blooms. Climate change may significantly impact Gulf reef fish species in the future, but the level of impacts cannot be quantified at this time, nor is the time frame known in which these impacts would occur. Actions from this amendment are not

expected to significantly contribute to climate change through the increase or decrease the carbon footprint from fishing.

The effects of the proposed action are, and will continue to be, monitored through collection of landings data by NOAA Fisheries Service. Increased frequency of surveys of the recreational sector's catch and effort, along with additional fishery independent information regarding the status of the stock, will allow future determinations regarding the impacts of the Deepwater Horizon MC252 oil spill on various fishery stocks, including red snapper. At this time it not possible to make such determinations.

3.3.7 Mitigation Measures

No mitigation measures are necessary for the administrative **Action 1** to establish the authority to adjust the timing of the fishing season to harvest the established quota. Similarly, **Action 2** does not require mitigation. Re-opening the fishery to harvest the established quota does not alter the manner in which the fishery is conducted except to provide a more flexible timing of the harvest; thus there are no direct impacts to the biological, social, or administrative environments requiring mitigation.

3.3.8 Unavoidable Adverse Effects

The Deepwater Horizon MC252 oil spill has affected more than one-third of the Gulf area from western Louisiana east to the panhandle of Florida and south to the Campeche Bank in Mexico. The long-term impacts of the Deepwater Horizon MC252 oil spill on the environment are unknown but can be expected to be significant. Potential adverse effects on the red snapper stock include spawn and recruitment failure in areas affected by the spill, habitat damage, and possible increased natural mortality on juveniles and adults found in the affected areas. However, as noted in Section 3.3.3, at this time, available data have not demonstrated any specific adverse effects of the Deepwater Horizon MC252 oil spill on the red snapper resource. As a result, no information is available that indicates that the 2010 recreational red snapper quota should not be harvested.

3.3.9 Irreversible and Irretrievable Commitments of Resources

There are no irreversible or irretrievable commitments to resources from these actions to establish a mechanism to re-open the recreational red snapper fishing season, and to subsequently re-open for a specific time period. NOAA Fisheries Service regularly opens and closes specific areas to fishing in accordance with regulations established from various fishery management plans; these include actions such as the seasonal Texas Shrimp Closure in the Gulf and the season closure to bottom fishing in Madison Swanson and Steamboat Lumps ecologically sensitive areas. NOAA Fisheries currently has the authority to re-open the recreational fishing season through September 30. The Council and NOAA Fisheries Service have established a management strategy for red snapper whereby overfishing has been projected to have ended, and the stock should be rebuilt by 2032 (see section 2.2.2). The allowable harvest now and in the future will be in accordance with that rebuilding plan. The proposed temporary action, conducted in accordance with regulations established under the FMP as amended to date,

in no way constitutes an irreversible or irretrievable commitment of resources. FMPs and their implementing regulations are always subject to future changes. The Council and NOAA Fisheries Service have discretion to amend the FMP and accompanying regulations and may do so at any time, subject to the Administrative Procedures Act, National Environmental Policy Act, and other applicable laws.

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

Action 1 Alternative 1 (No Action) and **Action 2 Alternative 1 (No Action)** would not allow re-opening of the fishing season beyond the July 23 closure, and thus would be expected to result in foregone economic benefits due to the continued prohibition on the fishing for or harvest of the allowable catch of red snapper. **Action 1 Alternative 2 (Preferred)** would be expected to result in greater indirect economic benefits, and **Action 2 Alternative 2 (Preferred)** would provide direct benefits by allowing increased red snapper harvest and red snapper trips. Enacting a later re-opening of the season, as would be allowed **Action 2 Alternative 2 (Preferred)** would be expected to result in the greatest potential for economic benefits. If oil-impacted fishery closed areas can be re-opened later in the year, participation and benefits can be accrued by fishermen in additional geographic regions. Nevertheless, the Deepwater Horizon MC252 oil spill has affected more than one-third of the Gulf area from western Louisiana east to the panhandle of Florida and south to the Campeche Bank in Mexico. The impacts of the Deepwater Horizon MC252 oil spill on the environment are unknown; therefore at this time it is not possible to determine effects to long-term productivity of the stock or fishery.

3.3.11. Overview of Testing Protocol to Re-open Harvest Waters that were Closed in Response to the Deep Horizon/BP Oil Spill

The U.S. Food and Drug Administration (FDA) oversees a mandatory safety program for all fish and fishery products under the provisions of the Federal Food, Drug, and Cosmetic Act, the Public Health Service Act, and related regulations. Adherence to these Acts and their supporting regulations helps ensure that the seafood U.S. consumers purchase is safe to eat. An important element in keeping seafood safe is making sure it is harvested from areas that do not present a chemical or biological hazard. The National Oceanic and Atmospheric Administration (NOAA) has the legislative authority to close and open federal waters for seafood harvesting while the states have authority to close and open waters under their jurisdiction.

In a letter to Dr. Jane Lubchenco, dated May 18, 2010, the FDA agrees that NOAA's closure of federal waters is an appropriate public health measure to prevent potentially unsafe seafood from being harvested and reaching consumers. The FDA indicated it will also work closely with NOAA on future decisions to re-open the fishery closed area. To that end, scientists from NOAA and FDA have agreed on a re-opening protocol that includes both sensory evaluation and chemical testing of seafood harvested from the closed areas that is intended for human consumption. FDA is committed to working with NOAA on an ongoing basis for the duration of this spill and cleanup. If it is assured that fish products within closed areas meet FDA standards for public health and wholesomeness, NOAA Fisheries Service will re-open previously closed areas that were affected by oil only.

NOAA, FDA, the Environmental Protection Agency, and the Gulf States are implementing a comprehensive, coordinated, multi-agency program to ensure that seafood from the Gulf of Mexico is safe to eat. This is important not only for consumers who need to know their food is safe to eat, but also for fishermen who need to be able to sell their products with confidence.

The first step in protecting the public from potentially contaminated seafood is to close fishing and shellfish harvesting areas in the Gulf that have been or are likely to be exposed to oil from the spill. In addition, NOAA and FDA are monitoring fish caught just outside of closed areas, and testing them for petroleum compounds by sensory and chemical analysis and dispersants by sensory analysis, to ensure that the closed areas are sufficiently large so as to prevent the harvest of contaminated fish. Ultimately, the oil will begin to dissipate and a trusted, science-based method (see description of process below) must be used to determine when it is safe to eat the seafood from areas that were exposed to the oil. Once it is determined that the seafood from a given area is safe to eat, the waters can be re-opened to harvesting. Below is a description of the risks oil poses and the protocol that will be followed in determining when it is appropriate to re-open harvest waters that were closed due to the oil spill.

How oil can make seafood unfit for consumption:
There are two ways that oil can cause seafood to be unfit for consumption. The first is through the presence of certain levels of chemicals known as polycyclic aromatic hydrocarbons (PAHs), some of which are carcinogenic. Oil is composed of many chemicals, but it is the carcinogenic PAHs which are of greatest concern because they can be harmful if consumed in sufficient amounts over a prolonged period of time. The second way seafood would be considered unfit for consumption is if it smells like petroleum product. This is known as the presence of "taint." Under the law a product tainted with petroleum is considered "adulterated" and is not permitted to be sold as food. Petroleum "taint" in and of itself is not necessarily harmful and may be present even when PAHs are below harmful levels, however it should not be present at all.

How dispersants can make seafood unfit for consumption:
Based on current science, the dispersants used during the Deepwater Horizon response have a low potential to bioaccumulate in seafood and are low in human toxicity, therefore there is likely little public health risk associated with consuming seafood that has been exposed to them. Nonetheless, as a precaution, the U.S. government will continue to monitor the use of dispersants and test seafood that may have been exposed to them. It is possible for the dispersants to "taint" seafood with a chemical smell. Even though the dispersant "taint" may not be harmful, seafood possessing the chemical smell is considered adulterated and not permitted for sale.

Protocol for sampling, testing, and re-opening closed harvest waters:

1. Re-opening fishing waters that were closed, but which were never actually exposed to oil. Harvest area closures include buffer zones around the contaminated areas as a precaution to account for any uncertainty about the exact location of the oil from day to day. There are also areas which federal and state officials closed in anticipation that oil would enter, but it never did enter. If it can be confirmed (e.g., through water quality sampling, aerial surveillance, and/or satellite imagery) that a harvest area was never exposed to the oil, that area may be re-opened without first testing seafood samples.

2. Re-opening harvest waters that were exposed to oil. The first criterion to be met before harvest waters exposed to oil are re-opened is that the water be free of oil from the spill. Once the oil has dissipated, re-opening of harvest waters may be performed on a species by species basis; that is, areas may be open to the harvesting of certain types of seafood, like finfish, but not others. For a closed area to re-open for harvesting of a given species, samples of the species taken from the waters must successfully pass both a sensory examination and chemical analysis in an approved laboratory. Testing will be performed on finfish, shrimp, crabs, and mollusks (e.g. oysters/mussels).

Criteria for sensory testing: A sample consists of the edible portion of the species of seafood being tested. A panel consisting of a minimum of 10 expert sensory assessors will evaluate each sample in both a raw and cooked state. In order for an area to be considered acceptable for re-opening from a sensory standpoint a minimum of seventy percent (70%) of the expert assessors must find NO detectable petroleum or dispersant odor or flavor from each sample. If any sample fails, the site from which it was collected remains closed.

Criteria for chemical testing: If all tested samples of a given species from a collection site pass the sensory criteria, additional samples will undergo chemical analysis to determine if harmful levels of PAHs are present. If harmful levels of PAHs are found in the samples, the site from which the sample was collected fails and remains closed. If the levels of PAHs in the seafood samples do not pose a health concern the site will be considered eligible for re-opening.

All contiguous sites must pass both sensory and chemical testing for an area to re-open.

4 REGULATORY IMPACT REVIEW

4.1 Introduction

NOAA Fisheries Service requires a Regulatory Impact Review (RIR) for all regulatory actions that are of public interest. The RIR does three things: (1) it provides a comprehensive review of the level and incidence of impacts associated with a proposed or final regulatory action; (2) it provides a review of the problems and policy objectives prompting the regulatory proposals and an evaluation of the major alternatives that could be used to solve the problem; and, (3) it ensures that the regulatory agency systematically and comprehensively considers all available alternatives so that the public welfare can be enhanced in the most efficient and cost-effective way. The RIR also serves as the basis for determining whether the proposed regulations are a "significant regulatory action" under the criteria provided in Executive Order (E.O.) 12866 and provides some information that may be used in conducting an analysis of impacts on small business entities pursuant to the Regulatory Flexibility Act. This RIR analyzes the expected economic impacts of a proposed temporary action to authorize re-opening of the recreational red snapper season during 2010 after the fishing season closure an temporary rule to re-open the red snapper season.

4.2 Problems and Objectives

The problems and objectives of these proposed temporary actions are provided in Section 1.2. In summary, the objectives of these proposed temporary actions are to establish and exercise the authority to facilitate the harvest of optimum yield and maximize the social and economic benefits of the red snapper component of the recreational sector of the reef fish fishery. This is expected to be accomplished by re-opening the red snapper season and providing an opportunity for fishermen, who were prevented from harvesting the red snapper quota as a result of oil-related closures, to harvest the remaining quota.

4.3 Description of the Fishery

A description of the recreational red snapper component of the reef fish fishery in the Gulf is contained in GMFMC (2010) and is incorporated herein by reference. Recreational fishing opportunities in many areas of the Gulf have been adversely affected by the recent Deepwater Horizon MC252 oil spill (see http://sero.nmfs.noaa.gov/deepwater_horizon_oil_spill.htm); however, more current data than contained in GMFMC (2010) reflecting these effects is not yet available.

4.4 Impacts of Management Measures

These proposed temporary actions, if implemented and in tandem, would authorize the re-opening of the recreational red snapper season during 2010 after the fishing season closure. A discussion of the expected economic impacts of these actions is provided in Section 3.3.3.

In summary, re-opening the recreational red snapper season and harvesting the remaining quota would be expected to result in approximately 17,500 red snapper target trips, approximately $9.3 million (2008 dollars) in consumer surplus, and approximately $4.4 million in net operating revenue to for-hire vessels (Table 3.3.3.1). The expenditures associated with the private and charterboat trips would be expected to support approximately 188 full-time equivalent jobs, approximately $18.4 million (2008 dollars) in output impacts (gross business sales), and approximately $10.4 million (2008 dollars) in value added impacts (difference between the value of goods and the cost of materials or supplies). Comparable totals for the headboat sector are not available.

4.5 Public and Private Costs of Regulations

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

Council costs of document preparation, meetings, public hearings, and information dissemination……....$0
NOAA Fisheries Service administrative costs of document preparation, meetings, and review ……...$15,000
TOTAL ……..……...$15,000

The Federal costs of document preparation are based on staff time, travel, printing, and any other relevant items where funds were expended directly for this specific action. The estimate provided above does not include any law enforcement costs. Any enforcement duties required under a re-opening would be expected to be covered under routine enforcement costs. However while law enforcement largely operates under a fixed budget, under the special circumstances of the Deepwater Horizon MC252 oil spill incident, it is logical to assume enhanced law enforcement services have been and will continue to be required. Estimates of these costs are not available at this time.

4.6 Determination of Significant Regulatory Action

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

5 REGULATORY FLEXIBILITY ACT ANALYSIS

5.1 Introduction

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

The RFA requires agencies to conduct a Regulatory Flexibility Act Analysis (RFAA) for each proposed rule. The RFAA is designed to assess the impacts various regulatory alternatives would have on small entities, including small businesses, and to determine ways to minimize those impacts. An RFAA is conducted to primarily determine whether the proposed action would have a "significant economic impact on a substantial number of small entities." The RFAA provides: 1) A description of the reasons why action by the agency is being considered; 2) a succinct statement of the objectives of, and legal basis for, the proposed rule; 3) a description and, where feasible, an estimate of the number of small entities to which the

proposed rule will apply; 4) a description of the projected reporting, record-keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirements of the report or record; 5) an identification, to the extent practicable, of all relevant federal rules, which may duplicate, overlap, or conflict with the proposed rule; 6) a description and estimate of the expected economic impacts on small entities; and 7) an explanation of the criteria used to evaluate whether the rule would impose "significant economic impacts".

This integrated document contains the required information and assessments for two temporary actions, an action to provide the authority to re-open the recreational red snapper season during 2010 after the fishing season closure, and an action to re-open the fishing season. Only the first action, providing the authority, is subject to public review and comment. For the second action, re-opening the fishing season, because delay in implementation would continue to impose a potential economic burden on fishermen, good cause has been found to waive prior notice and the opportunity for public comment on this action. As a result, an RFAA is not required and none was prepared for this action and the following sections only pertain to the action to grant authority to re-open the fishing season.

5.2 Statement of the need for, objectives of, and legal basis for the rule

The problems and objective of this proposed emergency action is provided in Section 1.2. In summary, the objective of this proposed emergency action is to establish the authority to facilitate the harvest of optimum yield and maximize the social and economic benefits of the red snapper component of the recreational sector of the reef fish fishery. This is expected to be accomplished by re-opening the red snapper season and providing an opportunity for fishermen, who were prevented from harvesting the red snapper quota as a result of oil-related closures, to harvest the remaining quota. The Magnuson-Stevens Act provides the statutory basis for this proposed rule.

5.3 Description and estimate of the number of small entities to which the rule will apply

This proposed rule, if implemented, would grant authority to NOAA Fisheries Service to re-open the recreational red snapper season. Because this rule would only grant the authority to re-open and not actually re-open the fishing season, this is an administrative action and no direct effects on any small entities have been identified.

A reasonably foreseeable consequence of this proposed rule is re-opening of the red snapper fishing season. If the recreational red snapper season is re-opened, this would be expected to directly affect federally permitted for-hire fishing businesses that sell services to fish for red snapper in the Gulf of Mexico. The for-hire fleet is comprised of charterboats, which charge a fee on a vessel basis, and headboats, which charge a fee on an individual angler (head) basis. A Gulf reef fish for-hire permit is required to harvest red snapper in the federal waters of the Gulf of Mexico. During 2009, there were 1,424 federal reef fish for-hire permits that were valid (non-expired) and, therefore, fishable for any portion of the year. Although the federal for-hire permit does not distinguish between headboats and charter boats, an estimated 79 headboats operate in the Gulf of Mexico. It cannot be determined with available data how many of the for-hire

vessels permitted to operate in the reef fish fishery fish for or harvest red snapper, either through directed effort or incidental harvest, so all permitted vessels are assumed, for this analysis, to comprise the universe of potentially affected vessels. The average charterboat is estimated to earn approximately $88,000 (2008 dollars) in annual revenues, while the average headboat is estimated to earn approximately $461,000 (2008 dollars). The Small Business Administration has established size criteria for all major industry sectors in the U.S. including fish harvesters. A business involved in the for-hire fishing industry is classified as a small business if it is independently owned and operated, is not dominant in its field of operation (including its affiliates), and has combined annual receipts not in excess of $7.0 million (NAICS code 713990, recreational industries). Based on the average revenue estimates provided above, all for-hire vessels that would be expected to be directly affected by actual re-opening of the red snapper season are determined for the purpose of this discussion to be small business entities.

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

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

5.5 Identification of all relevant federal rules, which may duplicate, overlap or conflict with the rule

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

5.6 Significance of economic impacts on small entities

Substantial number criterion

As previously discussed, no direct effects on any small entities have been identified. As a result, the substantial number criterion is not relevant.

Significant economic impacts

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

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

Because no direct effects on any small entities of the action to authorize re-opening the red snapper season have been identified, the issue of disproportionality does not arise.

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

A discussion of the expected direct and indirect economic effects of this action is provided in Section 3.3.3. This is an administrative action and no direct effects on any small entities have been identified.

For-hire vessels that would be directly affected by a subsequent action to re-open the red snapper season would be expected to receive an increase of approximately $4.4 million (2008 dollars) in net operating revenues (revenues minus non-labor variable operating costs) compared to not re-opening. As previously discussed, it cannot be determined how many of the for-hire vessels permitted to operate in the reef fish fishery fish for or harvest red snapper. If spread over all 1,424 vessels with federal reef fish for-hire permits, this increase in net operating revenues would equate to an average of approximately $3,000 per vessel. Not all for-hire vessels with federal reef fish permits would be expected to benefit from re-opening, and some vessels would be expected to benefit more than others. Estimates of the average annual net operating revenues per vessel are not available and estimates of the average annual gross revenues per vessel are an inappropriate proxy because gross revenues do not account for operating expenditures. As a result, estimates of the average percentage increase in net operating revenues are not available.

5.7 Description of significant alternatives to the proposed action

Because no direct effects on any small entities have been identified or are expected to occur as a result of the proposed action to authorize re-opening the red snapper season, the issue of significant alternatives is not relevant.

6 OTHER APPLICABLE LAW

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

Administrative Procedures Act

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

Coastal Zone Management Act

Section 307(c)(1) of the federal Coastal Zone Management Act of 1972 (CZMA), as amended, requires federal activities that affect any land or water use or natural resource of a state’s coastal zone be conducted in a manner consistent, to the maximum extent practicable, with approved

state coastal management programs. The requirements for such a consistency determination are set forth in NOAA regulations at 15 C.F.R. part 930, subpart C. According to these regulations and CZMA Section 307(c)(1), when taking an action that affects any land or water use or natural resource of a state's coastal zone, National Marine Fisheries Service is required to provide a consistency determination to the relevant state agency at least 90 days before taking final action.

Upon submission to the Secretary, NOAA Fisheries Service determined this proposed action is consistent with the Coastal Zone Management programs of the states of Alabama, Florida, Louisiana, Mississippi, and Texas to the maximum extent possible. The determination was submitted to the responsible state agencies under Section 307 of the CZMA administering approved Coastal Zone Management programs for these states, and approved by these programs.

Data Quality Act

The Data Quality Act (DQA) (Public Law 106-443) effective October 1, 2002, requires the government to set standards for the quality of scientific information and statistics used and disseminated by federal agencies. Information includes any communication or representation of knowledge such as facts or data, in any medium or form, including textual, numerical, cartographic, narrative, or audiovisual forms (includes web dissemination, but not hyperlinks to information that others disseminate; does not include clearly stated opinions).

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

Scientific information and data are key components of FMPs, FMP amendments, and proposed rulemaking and the use of best available information is the second national standard under the Magnuson-Stevens Act. To be consistent with the Act, actions 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 actions, it is important to ensure that the data are collected according to documented procedures or in a manner that reflects standard practices accepted by the relevant scientific and technical communities. Data will also undergo quality control prior to being used by the agency and a pre-dissemination review.

Endangered Species Act

The Endangered Species Act (ESA) of 1973, as amended, (16 U.S.C. Section 1531 et seq.) requires federal agencies use their authorities to conserve endangered and threatened species. The ESA requires National Marine Fisheries Service, when proposing a fishery action that "may affect" critical habitat or endangered or threatened species, to consult with the appropriate

administrative agency (itself for most marine species, the U.S. Fish and Wildlife Service for all remaining species) to determine the potential impacts of the proposed action. Consultations are concluded informally when proposed actions may affect but are "not likely to adversely affect" endangered or threatened species or designated critical habitat. Formal consultations, including a Biological Opinion, are required when proposed actions may affect and are "likely to adversely affect" endangered or threatened species or adversely modify designated critical habitat. If jeopardy or adverse modification is found, the consulting agency is required to suggest reasonable and prudent alternatives. NOAA Fisheries Service, as part of the Secretarial review process, will make a determination regarding the potential impacts of the proposed actions.

Marine Mammal Protection Act

The Marine Mammal Protection Act 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 Marine Mammal Protection Act, the Secretary of Commerce (authority delegated to NOAA Fisheries Service) is responsible for the conservation and management of cetaceans and pinnipeds (other than walruses). The Secretary of the Interior is responsible for walruses, sea and marine otters, polar bears, manatees, and dugongs.

Part of the responsibility that NOAA Fisheries Service has under the Marine Mammal Protection Act 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 Marine Mammal Protection Act, to govern the taking of marine mammals incidental to commercial fishing operations. This amendment required the preparation of stock assessments for all marine mammal stocks in waters under U.S. jurisdiction, development and implementation of take-reduction plans for stocks that may be reduced or are being maintained below their optimum sustainable population levels due to interactions with commercial fishing efforts, and studies of pinniped-fishery interactions.

Under section 118 of the Marine Mammal Protection Act, NOAA Fisheries Service must publish, at least annually, a List of Fisheries (LOF) that places all U.S. commercial fisheries into one of three categories based on the level of incidental serious injury and mortality of marine mammals that occurs in each fishery. The categorization of a fishery in the LOF determines whether participants in that fishery may be required to comply with certain provisions of the Marine Mammal Protection Act, such as registration, observer coverage, and take reduction plan requirements. The reef fish fishery is classified as a Category III fishery indicating it has minimal impacts on marine mammals (see Section 2.2.2 of this regulatory amendment).

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 NOAA Fisheries Service to obtain approval from the OMB before requesting most types of fishery information from the public.

Executive Orders

E.O. 12630: Takings

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

E.O. 12866: Regulatory Planning and Review

Executive Order 12866: Regulatory Planning and Review, signed in 1993, requires federal agencies to assess the costs and benefits of their proposed regulations, including distributional impacts, and to select alternatives that maximize net benefits to society. To comply with E.O. 12866, NOAA Fisheries Service prepares a Regulatory Impact Review (RIR) for all fishery regulatory actions that either implement a new fishery management plan or significantly amend an existing plan. RIRs provide a comprehensive analysis of the costs and benefits to society of proposed regulatory actions, the problems and policy objectives prompting the regulatory proposals, and the major alternatives that could be used to solve the problems. The reviews also serve as the basis for the agency's determinations as to whether proposed regulations are a "significant regulatory action" under the criteria provided in E.O. 12866 and whether proposed regulations would have a significant economic impact on a substantial number of small entities in compliance with the Regulatory Flexibility Act. A regulation is significant if it a) has an annual effect on the economy of $100 million or more or adversely affects in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments and communities; b) creates a serious inconsistency or otherwise interferes with an action taken or planned by another agency; c) materially alters the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or d) raises novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this Executive Order. National Marine Fisheries Service has preliminarily determined that this action will not meet the economic significance threshold of any criteria.

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

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. This executive order is generally referred to as environmental justice (EJ).
Information on the minority and poverty rates of counties and communities comprising the social environment associated with the red snapper component of the reef fish fishery in the Gulf of Mexico is contained in GMFMC (2010) and is incorporated herein by reference. Of the counties and communities identified as being associated with the recreational red snapper component of the reef fish fishery in the Gulf of Mexico, no Florida, Mississippi, or Louisiana counties (parishes) or communities examined exceeded the environmental justice thresholds for minorities, while Mobile County exceeds the EJ threshold in Alabama for minorities, and Brazoria, Galveston, Harris, and Matagorda counties in Texas exceeded the threshold for minority population and Matagorda exceeded the poverty threshold. Because the analysis focused only on key representative communities, additional counties and communities involved in the red snapper component of the reef fish fishery may also exceed the EJ thresholds.

Although some EJ populations may be affected by this proposed action, no EJ issues have been identified. This proposed action, if implemented, would be expected to increase the opportunity for the recreational sector to harvest their allocation and, as a result, the action is expected to be beneficial for all associated user groups, including EJ populations. Current information has not demonstrated any specific adverse effects of the oil spill on the red snapper resource. As a result, no information is available that indicates that the current recreational red snapper quota should not be harvested. Therefore, this proposed action would be expected to be biologically neutral on the red snapper resource. Further, because this proposed action would only allow red snapper to be harvested from open waters, i.e., waters not known to be affected or projected to be affected by the oil spill, no EJ health issues arise.

E.O. 12962: Recreational Fisheries

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

Service and the U.S. Fish and Wildlife Service to develop a joint agency policy for administering the ESA.

E.O. 13089: Coral Reef Protection

The Executive Order on Coral Reef Protection requires federal agencies whose actions may affect U.S. coral reef ecosystems to identify those actions, utilize their programs and authorities to protect and enhance the conditions of such ecosystems, and, to the extent permitted by law, ensure actions that they authorize, fund, or carry out do not degrade the condition of that ecosystem. By definition, a U.S. coral reef ecosystem means those species, habitats, and other national resources associated with coral reefs in all maritime areas and zones subject to the jurisdiction or control of the United States (e.g., federal, state, territorial, or commonwealth waters).

Regulations are already in place to limit or reduce habitat impacts within the Flower Garden Banks National Marine Sanctuary. Additionally, NOAA Fisheries Service approved and implemented Generic Amendment 3 for Essential Fish Habitat , which established additional HAPCs and gear restrictions to protect corals throughout the Gulf (see Section 2.1 of this regulatory amendment). There are no implications to coral reefs by the actions proposed in this amendment.

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

No Federalism issues have been identified relative to the action proposed in this amendment. Therefore, consultation with state officials under Executive Order 12612 is not necessary.

E.O. 13158: Marine Protected Areas (MPA)

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 MPAs, HAPCs, and gear-restricted areas in the eastern and northwestern Gulf (see Section 2.1 of this regulator amendment). The

action in the regulatory amendment would not affect any areas reserved by federal, state, territorial, tribal or local jurisdictions.

Essential Fish Habitat

The amended Magnuson-Stevens Act included a new habitat conservation provision known as Essential Fish Habitat that requires each existing and any new FMPs to describe and identify Essential Fish Habitat for each federally managed species, minimize to the extent practicable impacts from fishing activities on Essential Fish Habitat that are more than minimal and not temporary in nature, and identify other actions to encourage the conservation and enhancement of that Essential Fish Habitat. To address these requirements the Council has, under separate action, approved an EIS (GMFMC 2004b) to address the new Essential Fish Habitat 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 Essential Fish Habitat. An Essential Fish Habitat consultation was conducted for this action.

7 LIST OF PREPARERS

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Dr. Steve Branstetter	Biologist	Introduction , Purpose and Need, and FONSI, Environmental Consequences	SERO
Dr. Stephen Holiman	Economist	Economic analyses/Review	SERO
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8 LIST OF AGENCIES CONSULTED

Gulf of Mexico Fishery Management Council
NOAA Southeast Fishery Science Center
NOAA SERO Protected Resources Division
NOAA SER General Counsel

9 LITERATURE CITED

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APPENDIX A

2010 Recreational Red Snapper Quota Closure Analysis

NOAA Fisheries Service

Southeast Regional Office

St. Petersburg, FL

August 13, 2009

Introduction

The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) requires

NOAA Fisheries Service to close the recreational red snapper sector in the Gulf of Mexico when the quota is reached. NOAA Fisheries Service may reopen the fishery if data indicate the quota has not been reached (50 CFR 622.43(c)). In 2010, the recreational quota for red snapper was increased from 2.45 million pounds whole weight (mp ww) to 3.40 mp ww. Projections completed prior to the fishing season (SERO 2010) indicated the quota would be met on or before July 23, 2010, allowing for a 53-day fishing season. However, due to the Deepwater Horizon oil spill, a large area of the central Gulf of Mexico had to be closed (Figure 1) and many areas continue to remain closed to fishing, resulting in lower than expected landings for red snapper. NOAA Fisheries Service currently has authority to reopen the recreational red snapper sector until September 30, 2010. However, at the June 2010 Gulf of Mexico Fishery Management Council (Council) meeting, the Council requested NOAA Fisheries Service conduct temporary rulemaking to allow reopening of the recreational red snapper sector after September 30, 2010. The following analysis evaluates the potential length of a fall recreational red snapper season.

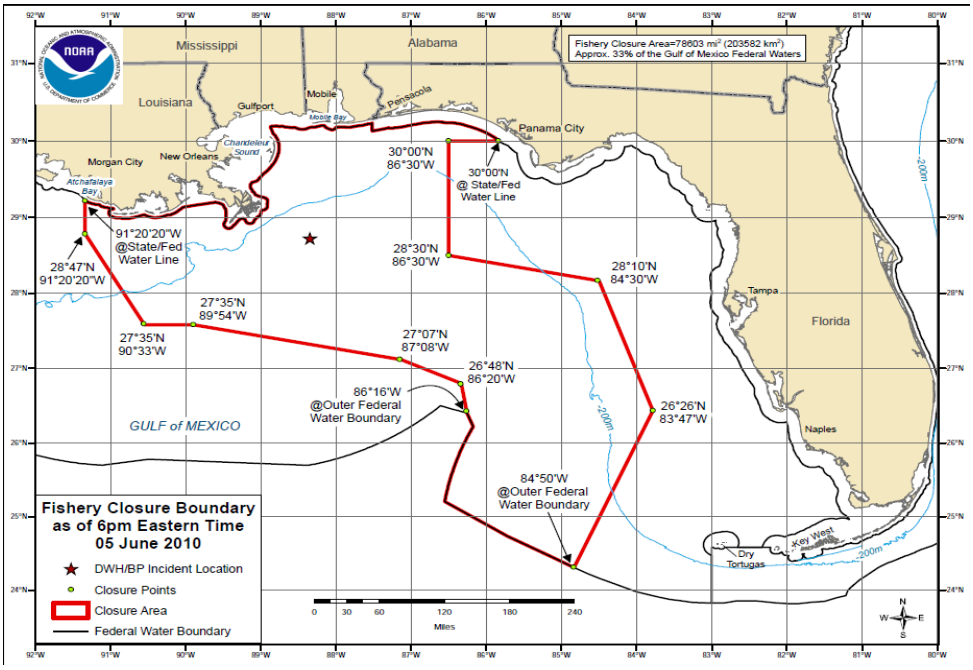

Figure 1. Map showing the area of the Gulf of Mexico closed to fishing as of June 5, 2010.

Recreational Data Collection Programs

MRFSS and For-hire red snapper landings are estimated using a combination of dockside intercepts (landings data) and phone surveys (effort data). Landings are estimated in both numbers and whole weight (lbs) by two-month wave (e.g., Wave 1 = Jan/Feb, … Wave 6 = Nov/Dec), area fished (inland, state, and federal waters), mode of fishing (charter, private/rental, shore), and state (west Florida, Alabama, Mississippi, and Louisiana). Texas landings are not available.

Headboat landings are collected through logbooks completed by headboat operators. Landings (lbs ww) are reported by vessel, day/month, and statistical reporting area (i.e., area 18 = Dry Tortugas off west coast of Florida, …, area 27 = Southeast Texas). Approximately 74 headboats currently participate in the SEFSC headboat survey.

The Texas Parks and Wildlife Department (TPWD) creel survey generates estimates of landings in numbers of fish for private/rental boats and charter vessels fishing off Texas. Landings are reported in numbers by high (May 15-November 20) and low-use waves (November 21-May 14), area fished (state vs. federal waters), and mode of fishing (private vs. charter).

2010 Preliminary Recreational Red Snapper Landings

Preliminary recreational red snapper landings for 2010 were obtained from the Marine Recreational Fisheries Statistics Survey, including the For-hire charter survey, and the Southeast Fisheries Science Center's headboat logbook program. Landings were available from MRFSS through June 30, 2010, and through July 23, 2010, for headboats. Reporting compliance for headboats during this time period was estimated to be greater than 98 percent (pers. comm., Ken Brennan). Landings from the state of Texas were unavailable at the time of this report.

Tables 1 and 2 summarize preliminary 2010 landings available from MRFSS and the SEFSC's headboat survey. No landings were reported by MRFSS during waves 1 and 2 (January-April). In wave 3, 396,817 lbs ww of red snapper was reported. Most MRFSS landings occurred off West Florida as federal and state waters were closed off Alabama, Mississippi, and eastern Louisiana. Landings were reported in all months from the SEFSC headboat survey. During January-May, 23,380 lbs ww of red snapper were reported by Texas headboat vessels. From June 1-July 23, a total of 224,046 lbs ww of red snapper were caught. Total headboat landings from January 1 through July 23 were 247,426 lbs ww.

Table 1. 2010 MRFSS red snapper landings for wave 3 (May-June) by state and mode

	Landings by State					
Mode	WFL	AL	MS	LA	TX	TOTAL
Charter	152816	0	0	0	na	152816
Private	237270	0	0	6731	na	244001
TOTAL	390086	0	0	6731	na	396817

Table 2. SEFSC 2010 headboat landings by area and month.

Month	Landings (lbs ww) by State				
	FL Peninsula	FL Panhandle/AL	Louisiana	Texas	TOTAL
Jan	0	0	0	7,607	7,607
Feb	0	0	0	4,792	4,792
Mar	0	0	0	8,206	8,206
Apr	0	0	0	2,367	2,367
May	0	0	0	407	407
Jun	2,020	48,706	0	90,983	141,710
Jul 1-23	851	16,337	0	65,148	82,335
TOTAL	2,871	65,043	0	179,512	247,426

Estimated Landings Prior to the Temporary Reopening

A total of 644,046 lbs ww of red snapper has been estimated or reported to date. This estimate does not include landings by MRFSS for the month of July. Landings estimates from MRFSS for wave 4 (July-August) will not be available until mid-October. Additionally, the recreational red snapper season is not likely to open until September 1 or later and Texas state waters are open year round for harvesting red snapper resulting in small amounts of landings reported throughout the year. In order to calculate the total amount of red snapper landed prior to the reopening of the red snapper recreational sector, landings were estimated using 2010 catch rates for headboats and MRFSS, and 2009 catch rates for Texas charter and private boats. Appendix A provides a summary of 2009 red snapper landings by data source.

MRFSS landings during July 1-23 for 2010 were estimated for each mode and state using June 2010 landings rates. Total MRFSS landings during June were divided by 30 (number of days in June) to calculate an average daily landing rate for each state and mode. This average daily landing rate was then multiplied by 23 (the number of days open in July) to calculate landings for July 1-23. The average daily catch rate was 5,094 lbs for charter vessels and 8,133 pounds for private boats. Landings from July 24 through the end of August/September were assumed to be zero since both state and federal waters off west Florida through Louisiana were closed during this time period.

Headboat landings from July 24 through the end of August/September were assumed to be zero for all areas except Texas. Off Texas, the average daily catch rates during January-May 2010 were used as a proxy for landings between July 24 and the end of August/September. The average daily catch rate during January-May was 154 lbs per day (range 13-264 lbs per day).

Texas charter and private landings are not available for 2010. Landing rates during the low use wave (Nov 21-May 15) were assumed to be the same as 2009 landing rates. Landings between June 1 and July 23 were estimated using 2009 TPWD federal water landings rates by mode as proxies. During 2009, 23,876 lbs of red snapper were landed by charter vessels in federal waters and 74,228 lbs of red snapper were landed by private vessels in federal waters during the 75-day fishing season. The average daily catch rates for each mode were estimated to be 318 lbs per day for charter vessels and 990 lbs per day for private vessels. These average catch rates were then multiplied by 53 days (June 1-July 23) to estimate 2010 TPWD charter and private landings during the federal fishing season. Between May 21 and June 1, as well as between July 24

and the end of August/September, landings were estimated by mode using 2009 landing rates from state waters during the high-use wave (May 16-Nov 20). Only 4,907 pounds of red snapper were landed from state waters during the high-use wave by Texas charter vessels during 2009. The average daily landing rate for charter vessels was estimated to be 26 lbs per day. For private vessels, 46,099 lbs of red snapper were reported during the high-use wave from state waters. The average daily landing rate for private vessels was estimated to be 244 lbs per day.

Table 3 provides a summary of landings estimates for January through September 30, 2010. Landings are estimated to be approximately 1.07-1.08 million pounds by the end of August/September.

Table 3. Reported and estimated 2010 red snapper landings, January 1-September 30.

Year	Period	DataBase	Mode	Landings (lbs ww)	Source
2010	Jan-Jun	MRFSS	Charter	152816	Reported preliminary landings
2010	Jul	MRFSS	Charter	117159	Estimated using June 2010 MRFSS catch rates
2010	Aug	MRFSS	Charter	0	Fishery closed; assume equal to zero
2010	Sept 1-Sept 15	MRFSS	Charter	0	Fishery closed; assume equal to zero
2010	Sept 16-Sept 30	MRFSS	Charter	0	Fishery closed; assume equal to zero
2010	Jan-Jun	MRFSS	Private	244001	Reported preliminary landings
2010	Jul	MRFSS	Private	187067	Estimated using June 2010 MRFSS catch rates
2010	Aug	MRFSS	Private	0	Fishery closed; assume equal to zero
2010	Sept 1-Sept 15	MRFSS	Private	0	Fishery closed; assume equal to zero
2010	Sept 16-Sept 30	MRFSS	Private	0	Fishery closed; assume equal to zero
2010	Jan-Jul 23	HBS	Headboat	247230	Reported preliminary landings
2010	Jul 24-Aug 31	HBS	Headboat	6039	Estimated using Jan-May 2010 Texas headboat catch rates
2010	Sept 1-Sept 15	HBS	Headboat	2323	Estimated using Sep-Nov 2009 Texas headboat catch rates
2010	Sept 16-Sept 30	HBS	Headboat	2323	Estimated using Sep-Nov 2009 Texas headboat catch rates
2010	Jan 1- May 14	TPWD	Charter	0	2009 low-use wave landings used as a proxy
2010	May 15-Aug 31	TPWD	Charter	30516	2009 catch rate in federal waters used as a proxy
2010	Sept 1-Sept 15	TPWD	Charter	389	2009 catch rate in state waters used as proxy
2010	Sept 16-Sept 30	TPWD	Charter	389	2009 catch rate in state waters used as proxy
2010	Jan 1 - May 14	TPWD	Private	8643	2009 low-use wave landings used as a proxy
2010	May 15-Aug 31	TPWD	Private	78797	2009 catch rate in federal waters used as a proxy
2010	Sept 1-Sept 15	TPWD	Private	3659	2009 catch rate in state waters used as proxy
2010	Sept 16-Sept 30	TPWD	Private	3659	2009 catch rate in state waters used as proxy

Temporary Rule Quota Projections

Approximately 2.3 million pounds of the 3.4 million pound quota is estimated to remains for 2010. For purposes of this analysis it was assumed that federal waters would be open off Alabama, Mississippi, and Louisiana when the red snapper fishing season starts, although any reopening of these areas is contingent on NOAA Fisheries Service and the Food and Drug Administration's sampling protocol and procedures. Different start dates for the fishing season were not evaluated as landings rates were assumed to be constant throughout the fall fishing season.

A major challenge in projecting the length of a fall red snapper fishing season is predicting fishing effort. The red snapper recreational season has not been open after August 15 since 2007, and has not been open after October 31 since the late 1990s. Historical landings data from 2005-2007, when the fishery was open through October 31, indicated wave 5 (September/October) landings were less than 50% of peak landings during the summer (May-June).

Table 4. Relative landings by wave scaled to May-June 2005-07 landings.

Wave	Avg Landings	% Landings	Rel Landings (Range)
Jan-Feb	15889	0%	0.01 (0.01-0.01)
Mar-Apr	468700	11%	0.29 (0.23-0.36)
May-Jun	1595788	38%	1.00
Jul-Aug	1400667	33%	0.88 (0.63-1.08)
Sep-Oct	665674	16%	0.42 (0.39-0.45)
Nov-Dec	38477	1%	0.02 (0.01-0.04)
All waves	4185195	100%	n/a

Although effort may be lower in the fall than during the summer, previous quota closure analyses have historically overestimated when the quota would be met. During both 2007 and 2008, the quota was exceeded by 1.26 mp ww and during 2009 the quota was exceeded by 2.09 mp ww (Figure 2). To avoid exceeding the quota again, effort and landings rates for fall 2010 were assumed to equal summer 2009 effort and landing rates.

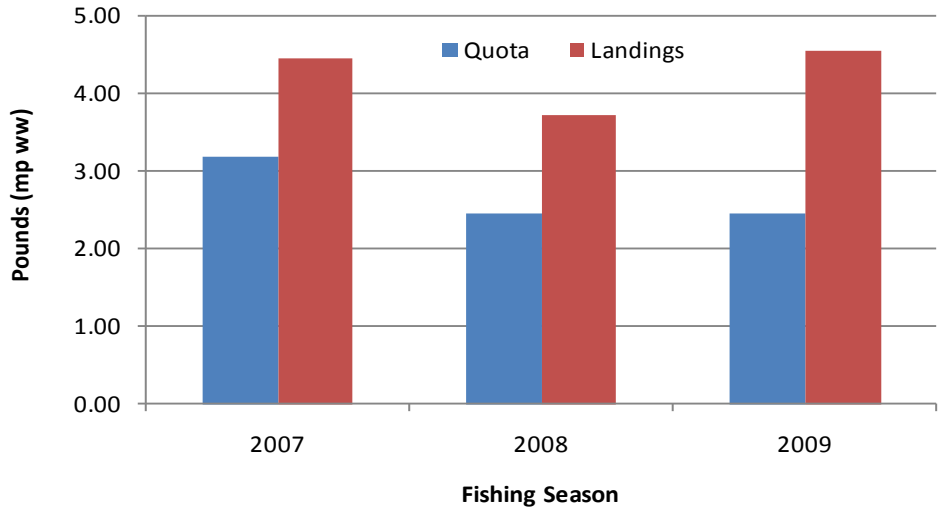

Figure 2. Comparison of recreational red snapper quotas and estimated landings, 2007-2009.

Landings rates for summer 2009 were calculated for each state, mode, and datasource. MRFSS daily landings rates were based on total landings during waves 3-4, 2009 (see Appendix A, Table A1), divided by 75

days (the length of the 2009 federal red snapper season). Headboat daily landings rates were based on June-August 2009 landings divided by 75 days. TPWD daily landings rates were calculated separately for federal and state waters. Daily landings rates for charter and private vessels in Texas state waters were based on total state water landings by mode divided by the number of days open during the high-use wave (n= 189 days). For federal waters off Texas, landings rates were based on federal water landings divided by 75 days. After the quota was projected to be met, federal water landings were set to zero for all areas. State water landings were estimated to occur after the federal season closed off Texas. Landings off Texas after the federal season closed, but prior to November 20, were calculated using TPWD state water landing rates during the high-use wave. After November 21, until the end of the year, landings off Texas were calculated by mode using state water landing rates from the low-use wave. Headboat landings off Texas were calculated using the average of September-December 2009 headboat landings divided by 122 days.

To calculate when the quota would be met, landings rates were multiplied by the number of days the season would be open until the quota was projected to be met. **It was estimated that the quota would be met in 39 days at summer effort levels.**

Discussion

There is considerable uncertainty in the results of this analysis. Results are highly contingent on the level of fishing effort assumed, estimates of landings from prior fishing years, and whether or not existing closed areas will open by the start date of the federal red snapper season. The lack of fishing effort information pertaining to the fall red snapper season makes it difficult to predict how much may be landed. If a derby fishery develops then landings could be even higher than those observed during summer months resulting in the quota being met faster. Similarly, if effort is lower during the fall due to reduced tourism and weather, then the quota may take longer to be met.

It should also be noted that this analysis does not account for environmental factors, such as sea temperature or sea state, which may affect the catchability of red snapper. The analysis also assumes no increase in the size of red snapper caught. A previous quota closure analysis concluded the quota could be met 11% faster if the average weight of red snapper increases by just 10% (SERO 2010). Lastly, it is unknown at this time what effect the Deepwater Horizon oil spill will have or has had on red snapper stock abundance and productivity.

This analysis did not attempt to analyze other proposed fishing seasons suggested by fishermen. Some fishermen have suggested opening only weekends (Friday-Sunday) during the fall or opening Labor Day weekend, then closing the season after Labor Day weekend until the start of October. Although landings rates were assumed to be constant over time for purposes of this analysis it is well recognized that effort and landings would be considerably higher on weekends versus weekdays. Any consideration of weekend only fishing seasons would need to account for differences in landings rates between weekdays and weekends. An analysis conducted for Amendment 27/14 to the Reef Fish Fishery Management Plan indicated weekend landings represented 60-70% of the total red snapper landings (SERO 2006).

In summary, the fall red snapper fishing season could be as long as 39 days. However, results should be viewed with caution based on the assumptions discussed herein and prior year's overages. Prior year's landings and effort have shown to be a poor predictor of future effort and landings (Table 2). Any

overage in quota would not allow an increase in the quota for the 2011 fishing season as future quotas are predicated on staying within prior year's quotas.

References

Southeast Regional Office. 2006. Estimated Reductions in Harvest for Various Core Recreational Fishing Seasons with Weekend Openings Before or After the Core Season. NOAA Fisheries Service, Southeast Regional Office, St. Petersburg, FL 15 pp.

Southeast Regional Office. 2010. 2010 Red Snapper Quota Closure Analysis. NOAA Fisheries Service, Southeast Regional Office, St. Petersburg, FL 8 pp.

Appendix 1.

Table A-1 - 2009 MRFSS red snapper landings by mode, wave, and state.

Mode	Wave	Landings (lbs ww) by State				
		Alabama	Louisiana	Mississippi	West Florida	Grand Total
Charter	Jan-Feb	0	0	0	0	0
	Mar-Apr	0	0	0	0	0
	May-Jun	75,611	70,089	0	278,117	423,817
	Jul-Aug	222,226	109,730	0	405,318	737,274
	Sep-Oct	5,384	0	0	1,502	6,886
	Nov-Dec	0	0	0	0	0
Private	Jan-Feb	0	0	0	0	0
	Mar-Apr	0	0	0	0	0
	May-Jun	627,824	152,984	81,048	397,780	1,259,636
	Jul-Aug	243,242	365,267	0	584,036	1,192,545
	Sep-Oct	0	0	0	1,336	1,336
	Nov-Dec	0	0	0	0	0
Grand Total		1,174,287	698,070	81,048	1,668,089	3,621,494

Table A-2. 2009 TPWD red snapper landings by season and mode.

Area	Season	Landings (lbs ww) by Mode		
		Charter	Private	Grand Total
Federal	Nov 21-May 14	0	0	0
	May 15-Nov 20	23,876	74,228	98,104
State	Nov 21-May 14	0	11,287	11,287
	May 15-Nov 20	4,907	46,099	51,006
Grand Total		28,783	131,614	160,397

Table A-3. 2009 headboat red snapper landings by month, and state.

Wave	Landings (lbs ww) by State				
	Alabama/W. Florida	Louisiana	Mississippi	Texas	Grand Total
Jan	0	0	0	14,386	14,386
Feb	0	60	0	20,139	20,199
Mar	0	0	0	42,851	42,851
Apr	2,930	24	0	19,222	22,176
May	2,884	685	0	18,752	22,321
Jun	126,494	14,511	0	122,693	263,698
Jul	113,072	9,534	0	142,529	265,135
Aug	66,515	3,867	0	68,549	138,931
Sep	298	0	0	1,599	1,897
Oct	1,042	0	0	3,361	4,403
Nov	0	0	0	2,863	2,863
Dec	1,329	0	0	5,716	7,045
Grand Total	314,564	28,681	0	462,660	805,905

Addendum
August 23, 2010

Background

During the August 16-20, 2010, Gulf of Mexico Fishery Management Council (Council) meeting, the Council discussed reopening the fall 2010 red snapper season on weekends only. Based on prior analyses conducted by the NOAA Fisheries Service Southeast Regional Office (SERO) it was determined that catch rates were considerably higher on weekends versus weekdays (SERO 2006). To project how many days it would take to harvest the remaining 2.3 million pounds of quota in 2010, analyses were conducted to evaluate a variety of weekend versus weekday catch rates and fishing effort/landing rates relative to peak summer 2009 effort/landing rates.

SERO (2006) reported that 60-70% of red snapper landings historically occurred on weekends when the season was open for 194-days (April 21-October 31). Landings on weekends versus weekdays varied by mode of fishing and region (east vs. west Gulf), with the highest proportion of landings occurring by private anglers on weekends in the eastern Gulf of Mexico (Table 1).

Table 1-A. Percentage of red snapper landings occurring on weekends versus weekdays by mode and region, 2001-2003 (SERO 2006)

Mode and Region	**% Weekend (Sat-Sun) Landings**	**% Weekday (Mon-Fri) Landings**
Charter/HB – East	53%	47%
Charter /HB – West	61%	39%
Private – East	80%	20%
Private – West	62%	38%
All Modes and Areas (weighted)	65%	35%

More recent data was also evaluated to determine the proportion of landings occurring on weekends versus weekdays. Logbook headboat landings for 2010 were summed for weekends (Fri-Sun) versus weekdays (Mon-Thurs) during the 53-day federal red snapper fishing season. Table 2 summarizes the proportion of red snapper headboat landings occurring on weekends versus weekdays by Gulf region.

Table 2. Percentage of red snapper headboat landings on weekends versus weekdays, 2010.

Day of Week	**% Landings by Region**		
	Eastern Gulf	**Western Gulf**	**Gulfwide**
Mon-Thurs	55%	48%	50%
Fri-Sun	45%	52%	50%

Historic data from SERO (2006) may not be suitable for determining the proportion of landings occurring on weekends versus weekdays given fishing conditions have changed considerably since 2006. Additionally, there is considerable uncertainty in the amount of effort that may occur during a fall fishing season. To evaluate the sensitivity of season lengths to different effort and landing rates, a range of plausible effort/landing rates was explored ranging from 50% to 120% of summer 2009 effort/landing rates. Historic red snapper landings (2005-2007) during September-October were less than 50% of peak summer landings (see Table 4), representing the lower end of the range examined. The upper end of the range assumes derby fishing conditions will occur, resulting in higher landing rates than observed during peak summer. Many factors may affect the amount of red snapper landed during fall including, but not limited to: differences in summer versus fall catchability, reduced tourism, closed areas resulting from the Deepwater Horizon oil spill, increases in red snapper size, and weather conditions.

Sensitivity analyses were conducted to evaluate the effect of weekend versus weekday landing rates on season length. If landings rates are assumed to be constant throughout a week then 29% (2 days divided by 7 days) of red snapper landings would be expected to occur on Saturday and Sunday and 71% (5 days divided by 7 days) would be expected to occur on Monday-Friday. Similarly, if landings rates are constant, 43% of red snapper landings (3 days divided by 7 days) would be expected to occur on Friday-Sunday and 57% (4 days divided by 7 days) would be expected to occur on Monday-Thursday. If the percentage of landings on two-day weekends (Sat-Sun) is greater than 29% or the percentage of landings is greater than 43% on three-day weekends, then the average landing rates on a weekend would be higher than the average landing rates on a weekday. For example, if 400,000 pounds is landed in an average week and landings rates are constant throughout the week, then 114,286 pounds would be landed on Saturday-Sunday (2 days) and 285,714 pounds would be landed on Monday-Friday (5 days). Both weekend days and weekdays would have an average catch rate of 57,142 pounds per day (114,286/2 and 285,714/5). However, if 40% of the landings occur on Saturday and Sunday, then the landings rate would increase to 80,000 pounds (160,000/2) on Saturday-Sunday and 48,000 pounds (240,000/5) on Monday-Friday.

To estimate the length of the fishing season if only weekends were open, summer 2009 landings by mode and state for the 75-day federal red snapper fishing season were calculated. Landings were then multiplied by a scaler ranging from 0.5 to 1.2 to account for different levels of effort occurring during the fall relative to the peak summer fishing season. Landings were then multiplied by the proportion of landings assumed to occur on weekends and then divided by the number of weekend days open during the summer fishing season to estimate a daily average landing rates.

Tables 3 summarizes the length of the fall red snapper season if only Saturdays and Sundays are open for harvest and Table 4 summarizes the length of the fall red snapper season if Friday, Saturday, and Sunday are open for harvest. Season lengths ranged from 12-78 days, depending on effort levels assumed and the proportion of weekend vs. weekday landings. Based on Tables 1 and 2, it is most likely that weekend landings will account for 50-65% of

landings. Based on effort levels ranging from 80-100%, and weekend landings of 50-65%, the season length would be 17-35 days.

Table 3. Estimated days red snapper recreational fishing season could be open before 3.4 million pound 2010 quota is met. Season lengths are based on different proportions of weekend versus weekday landings and effort/landing rates relative to peak summer levels. Season lengths are based on weekend only (Saturday-Sunday) openings.

%Weekend Landings (Sat-Sun)	%Weekday Landings (Mon-Fri)	Days Open based on Effort/Landing Rates Relative to Summer				
		120%	100%	80%	60%	50%
80%	20%	12	14	17	23	28
70%	30%	13	16	20	26	32
65%	35%	14	17	21	28	34
60%	40%	15	18	23	31	37
50%	50%	18	22	28	37	44
40%	60%	23	28	35	46	55
29%	71%	32	39	48	65	78

Table 4. Estimated days red snapper recreational fishing season could be open before 3.4 million pound 2010 quota is met. Season lengths are based on different proportions of weekend versus weekday landings and effort/landing rates relative to peak summer levels. Season lengths are based on weekend only (Friday-Sunday) openings.

%Weekend Landings (Fri-Sun)	%Weekday Landings (Mon-Thurs)	Days Open based on Effort/Landing Rates Relative to Summer				
		120%	100%	80%	60%	50%
80%	20%	18	21	26	35	42
70%	30%	20	24	30	40	48
65%	35%	22	26	32	43	52
60%	40%	23	28	35	47	56
50%	50%	28	34	42	56	68
43%	57%	32	39	48	65	78

Discussion

There is considerable uncertainty in projecting when the quota will be met in fall 2010 based on weekend only red snapper openings. Results are highly contingent on landings rates assumed for weekends and relative effort levels in fall versus summer. The higher the proportion of landings on weekends, the sooner the quota will be met. Similarly, the higher effort/landings rates are relative to summer the sooner the quota will be met. At the August 2010 Council meeting, the Council recommended reopening Fridays-Sundays between October 1 and November 22. This would result in a 24-day fall fishing season, which is well within the range considered herein.