

DRAFT

ENVIRONMENTAL ASSESSMENT

REGULATORY IMPACT REVIEW

FOR A

PROPOSED RULE

TO IMPLEMENT COMPLEMENTARY HMS MANAGEMENT MEASURES FOR
MADISON-SWANSON, STEAMBOAT LUMPS, AND THE EDGES 40 FATHOM
CONTOUR CLOSURE AREAS CONSISTENT WITH THE RECOMMENDATIONS OF THE
GULF OF MEXICO FISHERY MANAGEMENT COUNCIL

July 2009

United States Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Office of Sustainable Fisheries
Highly Migratory Species (HMS) Management Division
1315 East-West Highway
Silver Spring, Maryland 20910

Proposed Rule to Implement Complementary HMS Management Measures for Madison-Swanson, Steamboat Lumps, and the Edges 40 Fathom Contour Closure Areas Consistent with the Recommendations of the Gulf of Mexico Fishery Management Council

Framework Adjustment to the Consolidated Atlantic Highly Migratory Species Fishery Management Plan

- Proposed Action:** This action would complement certain management measures contained in Amendment 30B to the Gulf of Mexico Reef Fish Fishery Management Plan (Amendment 30B) by indefinitely extending the expiration date of two existing fishery closure areas (Madison-Swanson and Steamboat Lumps) and implementing a new seasonal closure area (the Edges 40 Fathom Contour) for fisheries managed under the Consolidated Highly Migratory Species (HMS) Fishery Management Plan.
- Type of Statement:** Proposed Rule Documents: Environmental Assessment and Regulatory Impact Review (EA/RIR)
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- Abstract:** This Environmental Assessment (EA) tiers off the Environmental Impact Statement (EIS) prepared in 2008 by the Gulf of Mexico Fishery Management Council (GMFMC) for Amendment 30b to the Gulf Reef Fish Fishery Management Plan (GMFMC 2008), and the EIS prepared for the 2006 Consolidated HMS Fishery Management Plan (NMFS 2006). The purpose of this action is to implement compatible regulations for HMS fisheries in the Madison-Swanson, Steamboat Lumps, and the Edges 40 Fathom Contour fishery closure areas to protect spawning aggregations of gag grouper and other reef species, protect spawning habitat, and protect a portion of the offshore male population of gag grouper. Incidental ecological benefits could also accrue to other species that occur within the proposed closure areas. It would close a potential loophole whereby HMS fisheries could be prosecuted in these areas if they were only closed to fisheries managed by the GMFMC. NMFS is proposing this action at the request of the GMFMC.

**FINDING OF NO SIGNIFICANT ENVIRONMENTAL IMPACT
TO IMPLEMENT COMPLEMENTARY MANAGEMENT MEASURES FOR
MADISON-SWANSON, STEAMBOAT LUMPS, AND THE EDGES MARINE
RESERVES CONSISTENT WITH THE RECOMMENDATIONS OF THE GULF OF
MEXICO FISHERY MANAGEMENT COUNCIL**

National Marine Fisheries Service
July 2009

The Highly Migratory Species (HMS) Management Division of the Office of Sustainable Fisheries submits the attached Environmental Assessment (EA) for Secretarial review under the procedures of the Magnuson-Stevens Fishery Conservation and Management Act. This EA tiers off the Environmental Impact Statement (EIS) prepared by the Gulf of Mexico Fishery Management Council (GMFMC) for Amendment 30B to the Gulf Reef Fish Fishery Management Plan (GMFMC, 2008), and the EIS prepared for the Consolidated HMS Fishery Management Plan (NMFS, 2006). The proposed action would indefinitely extend the expiration date of two existing closure areas (Madison-Swanson and Steamboat Lumps) and implement a new closure area (the Edges 40 Fathom Contour) for fisheries managed under the Consolidated HMS Fishery Management Plan. The purpose of this action is to protect spawning aggregations of gag grouper and other reef species by closing a potential loophole whereby HMS fisheries could be prosecuted in these areas if they were only closed to fisheries managed by the GMFMC. NMFS is proposing this complementary action at the request of the GMFMC. This EA is integrated document that also includes a Regulatory Impact Review (RIR). Copies of the proposed rule and the EA/RIR are available from the National Marine Fisheries Service (NMFS) at the following address:

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National Oceanic and Atmospheric Administration Administrative Order 216-6 (NAO 216-6) (May 20, 1999) contains NOAA's procedures for implementing NEPA, including criteria for determining the significance of the impacts of a proposed action. In addition, the Council on Environmental Quality (CEQ) regulations implementing NEPA at 40 C.F.R. 1508.27 indicate 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 and CEQs "context" and "intensity" criteria.

These include:

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

No. The preferred alternative would indefinitely extend, for HMS fisheries, the duration of the existing Madison-Swanson and Steamboat Lumps closure areas (which are currently set to expire on June 16, 2010), and implement a new seasonal closure (January – April) for HMS fisheries in an area identified as the Edges 40 Fathom Contour. These areas are within in the eastern Gulf of Mexico. Although the preferred alternative is not specifically intended to provide protection for HMS, it could provide some minor ancillary conservation benefits for HMS as a result of the year-round prohibition on HMS fishing activities in the Madison-Swanson and Steamboat Lumps closure areas (except for surface trolling from May through October), and the seasonal closure of the Edges 40 Fathom Contour from January - April. However, any positive ecological impacts on HMS are expected to be minimal. Madison-Swanson and Steamboat Lumps have been closed to most fishing for HMS since November 1, 2006. Prior to that time, there was little reported or observed HMS fishing effort in the areas. Similarly, there has been no reported commercial HMS fishing activity in the Edges 40 Fathom Contour.

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

No. The GMFMC requested NMFS to consider this action specifically because of the potential impact of HMS fishing activities on other finfish species, primarily gag, red grouper, and Gulf of Mexico reef fish. The complementary regulations in the preferred alternative would prevent HMS-only permitted fishermen from having access to important gag spawning areas, and would therefore reinforce the conservation benefits on other finfish species associated with the existing GMFMC closures.

3. Can the action be reasonably expected to allow substantial damage to the ocean and coastal habitats and/or essential fish habitat (EFH) as defined under the Magnuson-Stevens Act and identified in FMPs?

No. The preferred alternative would reduce the areas in which HMS bottom longline gear would be allowed by implementing, or extending the duration of, three small closure areas. Other gears including, pelagic longline and handgear are typically suspended in the water column and do not contact the bottom substrate. Because of the nature of these gears, it is unlikely that the habitat for any prey species would be altered. The preferred alternative is not expected to significantly

change fishing practices or effort, so this proposed rule is not expected to significantly change the impact of bottom longline gear on EFH.

4. Can the action be reasonably expected to have a substantial adverse impact on public health and safety?

No. The preferred alternative would not require fishermen to fish in an unsafe manner as the areas proposed for closure are relatively small and other nearby areas with similar catch rates for HMS would remain open. NMFS has concluded that the preferred alternative is not likely to adversely affect public health or safety at sea.

5. Can the action be reasonably expected to have an adverse impact on endangered or threatened species, marine mammals, or critical habitat of these species?

No. The alternatives analyzed in this document are not expected to result in significant changes in HMS fishing effort, location, or techniques. Traditionally, very little commercial HMS fishing activity has occurred in the three relatively small areas that are being considered for closure. Therefore, displacement of commercial HMS fishing effort is expected to be minimal. The preferred alternative would not change any of the fishing gears, workshop requirements, and other measures for HMS fishermen that have been established to reduce bycatch. Nor would the preferred alternative prevent NMFS from monitoring protected species interactions, as required in the 2004 Biological Opinion (BiOp). These measures have significantly reduced the bycatch of protected species in the PLL fishery, and are expected to continue to mitigate impacts on protected species.

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

No. The preferred alternative is not expected to have a substantial impact on biodiversity and ecosystem function because HMS fishing effort is not expected to change significantly from current levels of fishing effort, which are not substantially impacting biodiversity and ecosystem function. The preferred alternative would reduce the areas in which HMS fishing activity would be allowed to occur by implementing, or extending the duration of, three small closure areas. The primary purpose of this action is to improve ecosystem function by implementing consistent regulations in the three areas for both HMS and Council-managed species.

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

No. NMFS does not expect any significant social or economic impacts from implementing, or extending the duration of, three small closure areas. In fact, net positive economic and social impacts may occur because consistent regulations for HMS and Council-managed species may be less confusing to fishermen, easier to enforce, and result in long-term positive benefits for gag grouper and other Gulf of Mexico reef fishes.

8. To what degree are the effects on the quality of the human environment expected to be highly controversial?

The effects on the quality of the human environment are not expected to be highly controversial, because a significant change in fishing effort or fishing practices is not anticipated. Current fishing effort and practices are not controversial. The three areas are already closed to fishing for Council-managed species, and very little HMS fishing activity has historically occurred in the areas.

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

No. This preferred alternative does not apply to any of the unique areas listed. There are no historic or cultural resources, park land, prime farmlands, wetlands or wild and scenic rivers within the Madison-Swanson, Steamboat Lumps, or the Edges 40 Fathom contour. The areas are important spawning grounds for several species of grouper, and will be provided with additional protection.

10. To what degree are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

The preferred alternative is not likely to be highly uncertain or involve unique or unknown risks. Two of the areas (Madison-Swanson and Steamboat Lumps) have been closed to HMS fishing since 2006, with minimal impacts. The other area (the Edges 40 Fathom Contour) has not had any HMS commercial fishing activity occur within its boundaries since 1995 (the earliest year examined). The only uncertainty relates to impacts on recreational HMS fisheries because the extent of recreational fishing activity in the areas is unknown. However, there are seasonal exemptions for recreational fishing gear (surface trolling) to mitigate adverse impacts as a precautionary measure.

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

In general, the cumulative impact of implementing several time/area closures since 1999, in addition to other measures to reduce bycatch and bycatch mortality, has been positive ecologically, but negative socially and economically, especially for the pelagic longline (PLL) industry. However, because the preferred alternative to establish complementary HMS regulations in the Madison-Swanson, Steamboat Lumps, and Edges 40 Fathom Contour areas would impact a small area, and because a small proportion of vessels permitted to fish for HMS have actually fished in the areas, NMFS considers the cumulative impact associated with these particular closures to be minor. Additionally, cumulative impacts would be mitigated because surface trolling would be allowed in Madison-Swanson and Steamboat Lumps from May through October, and the Edges 40 Fathom Contour is only four months in duration.

12. Is the preferred alternative 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.

No. The preferred alternative would not adversely affect these sites or resources because there are no districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places within the affected areas, and the preferred alternative would

not cause the loss or destruction of significant scientific, cultural, or historical resources because there are none within the affected areas.

13. Can the preferred alternative be reasonably expected to result in the introduction or spread of a non-indigenous species?

No. The preferred alternative to implement complementary HMS closure areas would not result in the introduction or spread of any non-indigenous species. Closing these areas to fishing, either seasonally or year-round, will inherently have little or no impact on the spread of non-indigenous species.

14. Is the preferred alternative likely to establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration?

No. This action strives to balance the need to ensure adequate conservation benefits for reef species while minimizing regulatory effects on fisheries which have limited impacts on reef species. Balancing ecological and economic needs is typically an integral part of any fishery management considerations, and is not precedent setting.

15. Can the preferred alternative be reasonably expected to threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment?

No. NMFS has determined preliminarily that these regulations would be implemented in a manner consistent to the maximum extent practicable with the enforceable policies of those coastal states on the Atlantic, including the Gulf of Mexico and Caribbean, that have approved coastal zone management programs. Letters will be sent to the relevant states asking for their concurrence when the proposed rule is filed with the Federal Register. NMFS has also preliminarily determined that the preferred alternative is consistent with the MMPA and ESA.

16. Can the preferred alternative reasonably be expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species?

No. The GMFMC requested NMFS to consider this action specifically because of the potential impact of HMS fishing activities on other finfish species, primarily gag, red grouper, and Gulf of Mexico reef fish. The complementary regulations in the preferred alternative would prevent HMS-only permitted fishermen from having access to important gag spawning areas, and would therefore reinforce the conservation benefits on other finfish species associated with the existing GMFMC closures. Although the preferred alternative is not specifically intended to provide protection for HMS, it could provide some minor ancillary conservation benefits for HMS as a result of the year-round prohibition on HMS fishing activities in the Madison-Swanson and Steamboat Lumps closure areas (except for surface trolling from May through October), and the seasonal closure of the Edges 40 Fathom Contour from January - April.

DETERMINATION

In view of the information presented in this document and the analysis contained in the attached Environmental Assessment for a proposed rule to implement compatible HMS regulations in the Madison-Swanson, Steamboat Lumps, and the Edges 40 Fathom Contour closure areas to protect spawning aggregations of gag grouper and other reef species, protect spawning habitat, and

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1.0 PURPOSE AND NEED FOR ACTION

1.1. Management History

Atlantic Highly Migratory Species (HMS) are managed by the National Marine Fisheries Service (NMFS) under the dual authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and the Atlantic Tunas Convention Act (ATCA). Under the Magnuson-Stevens Act, NMFS must, consistent with the National Standards, manage fisheries to maintain Optimum Yield by rebuilding overfished fisheries and preventing overfishing. Under ATCA, NMFS is authorized to promulgate regulations, as may be necessary and appropriate, to implement recommendations of the International Commission for the Conservation of Atlantic Tunas (ICCAT). Additionally, any management measures must also be consistent with other domestic laws including, but not limited to, the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), the Marine Mammal Protections Act (MMPA), and the Coastal Zone Management Act (CZMA). For additional information about the management history of HMS, please refer to Section 1.1 of the Final Consolidated Atlantic HMS Fishery Management Plan (NMFS, 2006).

1.2. Need for Action, Objectives, and Background

The objective of the proposed action is to implement complementary fishery management measures for HMS fisheries in the Madison-Swanson, Steamboat Lumps, and Edges 40 Fathom Contour closure areas, to be compatible with management measures previously approved by the Gulf of Mexico Fishery Management Council (GMFMC) for Council-managed fisheries. These management measures are needed to protect spawning aggregations of gag grouper, which are undergoing overfishing, and other reef species. This action is needed to close a loophole whereby HMS fisheries could potentially be prosecuted in the three closure areas if the management measures applied only fisheries governed by the GMFMC, which could thereby compromise the effectiveness of the closures. NMFS is considering this complementary action at the request of the GMFMC. The objective of this rulemaking is to implement management measures that will facilitate compatible HMS regulations with the GMFMC regulations at 50 CFR 622.34, while maintaining compliance with the Magnuson-Stevens Act, the ESA, and other domestic laws.

The GMFMC originally established the Madison-Swanson and Steamboat Lumps “marine reserves” (as they were previously referred to) in 2000, with a four year expiration period to evaluate the efficacy of the area closures in terms of protecting gag spawning aggregations and protecting a portion of the male gag grouper population (GMFMC, 1999). The two closure areas are located shoreward of the Desoto Canyon Closed Area. In 2003, Amendment 21 to the Gulf Reef Fish FMP (GMFMC, 2003) extended the duration of the two closure areas by six years with a new expiration date of June 16, 2010, so that an evaluation of the effectiveness of the area closures could continue for a full ten years. As part of the Council’s extension in 2003, the fishing restrictions were eased to allow surface trolling during the months of May through October, with a total closure to all fishing during the remaining months. A final rule, effecting non-HMS fishing activities, published in the Federal Register on May 4, 2004 (69 FR 24532), and became effective on June 3, 2004.

On September 3, 2003, NMFS received a formal request from the GMFMC for the Secretary to implement “compatible” regulations for HMS fisheries in the Madison-Swanson and Steamboat Lumps closure areas. Accordingly, NMFS fully analyzed a range of alternatives in the Consolidated HMS Fishery Management Plan (NMFS, 2006) including one to implement identical regulations for HMS fishing activities in these two areas. A final rule, effecting HMS fishing activities in the two closure areas, published in the Federal Register on October 2, 2006 (71 FR 58058), and became effective on November 1, 2006. Consistent with the regulations governing Council-managed species, the HMS regulations contained an expiration date of June 16, 2010, for the Madison-Swanson and Steamboat Lumps closure areas. The action significantly reinforced the protections afforded gag grouper and other Gulf reef species by restricting HMS fishing in the two areas and closing a potential loophole.

On August 14, 2008, the GMFMC approved Amendment 30B to the Gulf Reef Fish FMP (Amendment 30B). This amendment repealed the annual commercial closed season of February 15 to March 15 on gag, black, and red grouper, and replaced it with a new annual January through April seasonal area closure prohibiting all fishing for Council-managed species in the Edges 40 Fathom Contour, a 390 nm² gag spawning region northwest of Steamboat Lumps. Amendment 30B also included provisions to indefinitely extend the duration of the Madison-Swanson and Steamboat Lumps closure areas. Amendment 30B was submitted to NMFS in September, 2008, and a Notice of Availability (NOA) was published in the Federal Register on October 28, 2008 (73 FR 63932). A proposed rule for Amendment 30B, effecting Council-managed fishing activities, published in the Federal Register on November 18, 2008 (73 FR 68390), and the comment period ended on January 2, 2009. NMFS approved the amendment on January 23, 2009. The final rule for Amendment 30B published in the Federal Register on April 16, 2008 (74 FR 17603), with an effective date of May 18, 2009. However, due to a technical error, NMFS was required to republish portions of the proposed rule affecting the three closure areas. The proposed rule published on April 17, 2009 (74 FR 17812). The comment period for the republished portions of the proposed rule closed on May 4, 2009. A final rule containing the new regulations for Council-managed species in the Madison-Swanson, Steamboat Lumps, and Edges 40 Fathom Contour closure areas is expected to publish in the spring of 2009, with an anticipated effective date of summer 2009.

On November 7, 2008, NMFS received a formal request from the GMFMC to implement “compatible” regulations for HMS fisheries in the Madison-Swanson, Steamboat Lumps, and the Edges 40 Fathom Contour closure areas. In its letter, the GMFMC indicated that all three of these areas are located within the dominant spawning grounds for gag, which is classified as undergoing overfishing. The purpose of the area closures is to provide protection to a portion of gag spawning aggregations, and to help reduce fishing mortality on these aggregations from both targeted and incidental catches. Without compatible regulations, persons not issued a permit governed under SERO regulations, but issued only an HMS permit would be allowed to fish in these areas. This could provide a loophole for persons who choose not to obtain a SERO permit for Council-managed species, and only obtain an HMS permit. These fishermen would have access to the three areas, and could therefore potentially reduce the conservation benefits (primarily for red grouper and gag) associated with the closures if they targeted these species illegally, under the guise of fishing for HMS, or if they caught them incidentally while targeting HMS.

A copy of the letter from the GMFMC is included as Appendix 1. In response to the request from the GMFMC, this EA is necessary to analyze the potential impacts on HMS fisheries within the three proposed closure areas.

In this EA/RIR, NMFS considers the ecological, social, and economic impacts on HMS fisheries associated with an indefinite extension of the Madison-Swanson and Steamboat Lumps area closures, and a new area closure referred to as the Edges 40 Fathom Contour. This review is based upon logbook reports, permit information, and other data. Selection of the preferred alternative is in accordance with the National Environmental Policy Act (NEPA) and other applicable laws. The preferred alternative has been selected due to its consistency with the objectives of the 2006 Consolidated HMS FMP, the Magnuson-Stevens Act, ATCA, and other domestic regulations.

2.0 SUMMARY OF THE ALTERNATIVES

This section provides a summary and a basis for the alternatives considered in this rulemaking. The ecological, economic, and social impacts of these alternatives are discussed in later chapters. The No Action alternative addresses the impacts if no regulatory changes are implemented.

Alternative 1: No Action

This alternative would maintain the status quo. As such, the existing Madison-Swanson and Steamboat Lumps fishing closure areas (affecting HMS fisheries) would expire on June 16, 2010, and the Edges 40 Fathom Contour closure area would not be implemented for HMS fisheries. All HMS fishing activities would be allowed within these three areas (after June 16, 2010, for Madison-Swanson and Steamboat Lumps), even though fishing activities for Council-managed species would be restricted on a year-round or seasonal basis.

Alternative 2: *Implement Regulations for HMS Fisheries that are Compatible with those of Council-Managed Species in the Madison-Swanson, Steamboat Lumps, and Edges 40 Fathom Contour Closure Areas – Preferred Alternative*

This alternative would indefinitely extend, for HMS fisheries, the duration of the existing Madison-Swanson and Steamboat Lumps closure areas (which are currently set to expire on June 16, 2010) to be consistent with regulations at 50 CFR 622.34. The existing seasonal (May – Oct.) exemption for surface trolling in these areas would remain in effect. Specifically, this alternative would prohibit all HMS-permitted vessels from fishing or deploying any fishing gear in Madison-Swanson and Steamboat Lumps from November through April of each year. From May through October, surface trolling would be the only HMS fishing activity allowed. Surface trolling is defined as fishing with lines trailing behind a vessel that is in constant motion, at speeds in excess of four knots, and with a visible wake. Such surface trolling may not involve the use of down riggers, wire lines, planers, or similar devices. Also, Alternative 2 would implement a new seasonal closure (January – April) for HMS fisheries in an area identified as the Edges 40 Fathom Contour. The Edges 40 Fathom Contour is a 390 nm² gag spawning region located between the Madison-Swanson and Steamboat Lumps closure area, within the Gulf of Mexico.

3.0 DESCRIPTION OF AFFECTED ENVIRONMENT

This EA tiers off of the EIS prepared for the Consolidated HMS Fishery Management Plan (NMFS, 2006), and the EIS prepared by the GMFMC for Amendment 30B to the Gulf Reef Fish Fishery Management Plan (GMFMC, 2008). Please refer to those documents for a complete description of the affected environment for the proposed action, as the information is not fully repeated here. The following sections provide summary information regarding the affected environment, and guidance regarding the location of sections where detailed information is contained in the aforementioned reference documents.

3.1. Status of the Stocks

Detailed descriptions of the life histories and current population status of Atlantic HMS are presented in Section 3.2 of the Consolidated HMS Fishery Management Plan (NMFS, 2006), and more recently in Section 2.0 of the 2008 HMS SAFE Report (NMFS, 2008). Detailed information on catch and bycatch of HMS by fishery are provided in Sections 3.4 and 3.8, respectively, of the 2006 Consolidated HMS Fishery Management Plan (NMFS, 2006), and more recently in Sections 4.0 and 8.0, respectively, of the 2008 HMS SAFE Report (NMFS, 2008).

With regard to species that are managed by the GMFMC and potentially affected by this action, overfishing was found to be occurring on gag grouper in 2004. However, because there was not a Sustainable Fisheries Act (SFA) compliant definition for minimum stock size threshold (MSST), the overfished status for gag was undetermined. The GMFMC indicated that, under any MSST definition considered in Amendment 30B, gag were not considered overfished in 2004, the most recent assessment. Red grouper were found to have fully recovered and are currently considered neither overfished, nor is overfishing occurring. Detailed descriptions on the stock status of gag and red grouper are contained in Section 1.2 of the EIS prepared for Amendment 30B to the Gulf Reef Fish Fishery Management Plan (GMFMC, 2008), and are not repeated here.

3.2. Fishery Participants, Gear Types, and Affected Area

Detailed information describing the operation and management of U.S. commercial and recreational HMS fisheries (including pelagic longline, bottom longline, purse seine, handgear, gillnet, greenstick gear, and buoy gear) can be found in Section 3.4 of the Final Consolidated HMS FMP (NMFS, 2006), and more recently in Section 4.0 of the 2008 HMS SAFE Report (NMFS, 2008). These sections describe current management measures, catch and landings data, safety issues, and international management issues. A description of community profiles is provided in Section 9.0 of the Final Consolidated HMS FMP (NMFS, 2006), and more recently in Section 6.0 of the 2008 HMS SAFE Report (NMFS, 2008).

A description of the affected environment for Council-managed species is contained in Section 3 of the EIS prepared for Amendment 30B to the Gulf Reef Fish Fishery Management Plan (GMFMC, 2008), and is not repeated here.

The three proposed closure areas (Madison-Swanson, Steamboat Lumps, and the Edges 40 Fathom Contour) are all located within the Gulf of Mexico, shoreward of the Desoto Canyon Closed Area (see Figure 1).

The proposed Madison-Swanson closure area is 115 nm² in size, rectangular-shaped, and is positioned southwest of Apalachicola, FL. The coordinates are: 29° 17' N. Lat., 85° 50' W. Long. to 29° 17' N. Lat., 85° 38' W. Long. to 29° 06' N. Lat., 85° 38' W. Long. to 29° 06' N. Lat., 85° 50' W. Long. to 29° 17' N. Lat., 85° 50' W. Long.

The proposed Steamboat Lumps closure area is 104 nm² in size, rectangular-shaped, and is positioned due west of Clearwater, FL. Its coordinates are: 28° 14' N. Lat., 84° 48' W. Long. to 28° 14' N. Lat., 84° 37' W. Long. to 28° 03' N. Lat., 84° 37' W. Long. to 28° 03' N. Lat., 84° 48' W. Long. to 28° 14' N. Lat., 84° 48' W. Long.

The proposed Edges 40 Fathom Contour is a parallelogram shaped area of about 390 nm² (37 nm long and 10-12 nm wide) that straddles the 40 fathom contour, west of the Florida Middle Grounds. The southern boundary is contiguous with the northern boundary of Steamboat Lumps, and thus could be considered an extension of Steamboat Lumps. Its coordinates are: 28° 51' N. Lat., 85° 16' W. Long. to 28° 51' N. Lat., 85° 04' W. Long. to 28° 14' N. Lat., 84° 42' W. Long. to 28° 14' N. Lat., 84° 54' W. Long.

The following communities were specifically identified by the GMFMC in the EIS prepared for Amendment 30B to the Gulf Reef Fish Fishery Management Plan (GMFMC, 2008), as being potentially impacted by the proposed action: Madeira Beach, FL; Panama City, FL; and, St. Petersburg, FL. In addition, the proposed action could potentially impact the following communities described in the 2008 HMS SAFE Report (NMFS, 2008): Apalachicola, FL; and Destin, FL.

Under the Preferred Alternative, the three proposed areas would be closed seasonally to all HMS fishing activities. Therefore, on a seasonal basis, they could potentially impact any recreational or commercial fishermen issued an HMS permit that has fished, or intends to fish, in the areas using any type of authorized HMS fishing gear. The main gear types affected by this action are pelagic longline, bottom longline, and handgear. The current seasonal (May – Oct.) exemption for surface trolling would remain in effect within the Madison-Swanson and Steamboat Lumps closure areas. Also, the Edges 40 Fathom Contour would be open to all HMS fishing activities from May – December of each year.

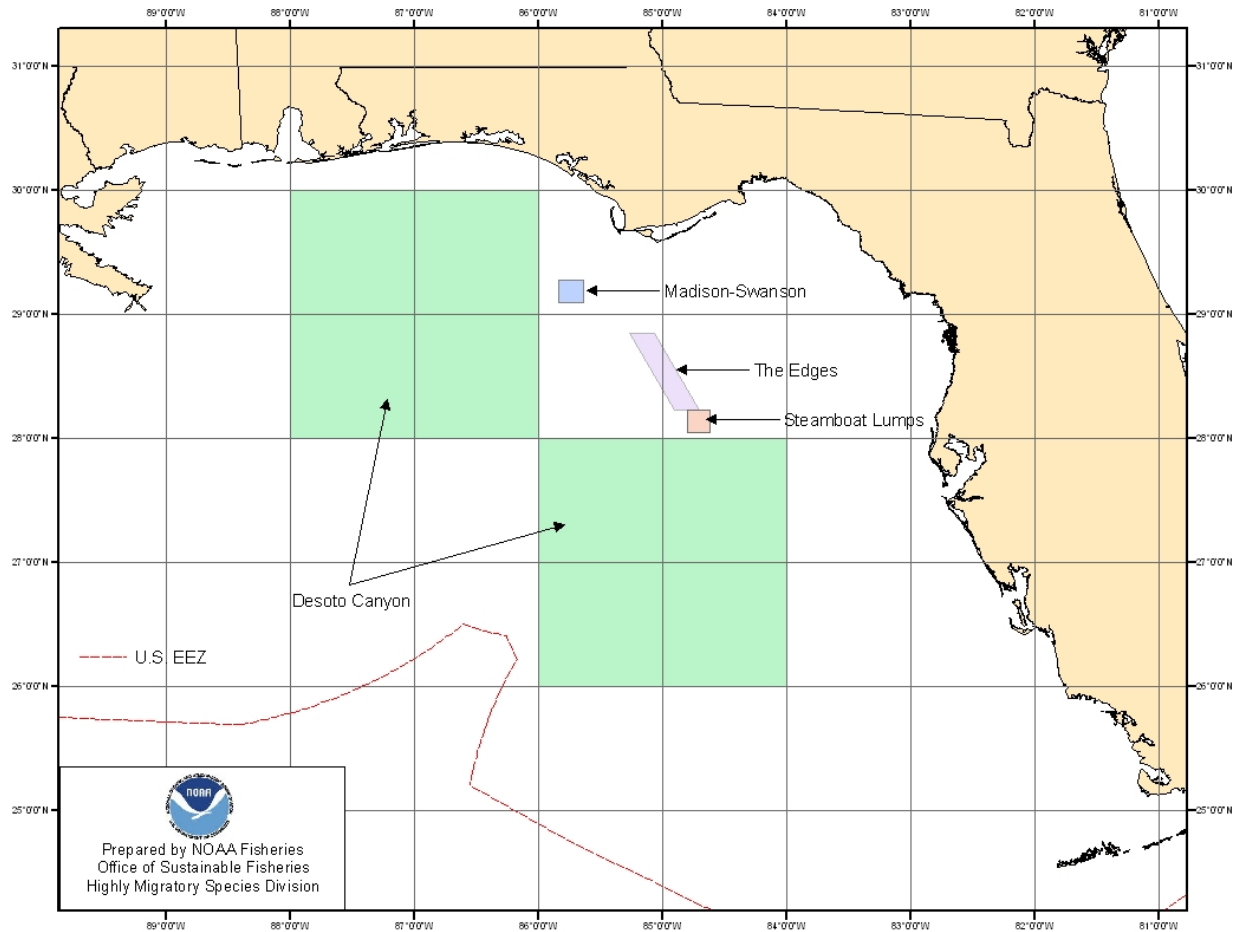


Figure 1. Chart showing location of proposed closure areas (Madison-Swanson, Steamboat Lumps, and the Edges 40 Fathom Contour). The existing Desoto Canyon PLL closure area is also shown for reference.

3.3. Habitat

Amendment 1 to the Consolidated HMS Fishery Management Plan (NMFS, 2009) describes the marine habitat of the Gulf of Mexico, and essential fish habitat (EFH) for HMS.

The three proposed closure areas are located within the dominant spawning grounds for gag grouper. They include a portion of a broad area off the Gulf coast of Florida that consists of a variety of habitats, much of which is suitable for reef fish. The following information describing the habitat is excerpted from Amendments 21 and 30B to the Reef Fish Fishery Management Plan (GMFMC, 2003; and, GMFMC, 2008, respectively).

The Madison-Swanson and Steamboat Lumps closure areas provide habitat for several reef fish species. In the Madison-Swanson area, gag, red grouper, scamp and red snapper are found on reefs, and the area is a known spawning aggregation area for gag and scamp. The Steamboat Lumps closure area was established as a low relief habitat to contrast with the high relief habitat of Madison-Swanson. Steamboat Lumps is not a significant grouper/snapper habitat. However, direct underwater observations by researchers from Florida State University have shown that red

grouper in Steamboat Lumps utilize flat areas with a veneer of sand over solution holes, which they excavate to form depressions exposing the underlying carbonate rocks. Their excavations harbor suites of fish and invertebrate species whose abundances increase as a result, including vermilion snapper, black grouper, and spiny lobster. In this way, red grouper act as ecosystem engineers that alter the habitat of Steamboat Lumps and create interdependencies with other important species.

Madison-Swanson is a 115 nm² area that includes rock ledges with relief up to five fathoms high (9 m). This site contains outcrops of limestone and reef fish habitat. Also, transects through this area showed pinnacle trends. Some of these formations have names (*i.e.*, Madison and Swanson's Rocks). The substrate is dominated by sand-clay (40% - 95%), but rock (30%) and soft corals (14%) were found in the greatest amounts along a ridge at the 74 meter isobath, and at the Pinnacles and the Snake strata.

Steamboat Lumps is a 104 nm² area due west of Clearwater, FL, and southwest of the Middle Grounds at a depth of 40-50 fathoms. The "lumps" are prominent features reported to be low relief areas with limestone rock. The substrate is dominated by sand-clay (60% - 95%), but diverse composition was found along the Ridge, which consists of rock (4%) and soft coral (7%).

The southern boundary of the Edges 40 Fathom Contour is contiguous with the northern boundary of Steamboat Lumps, and may be considered an extension of Steamboat Lumps. It is a low relief area scattered with high relief rocky outcrops, and is an area where gag and scamp spawning aggregations have been directly observed. This area has been described as an active region of commercial grouper fishing.

3.4. Protected Species

Protected species include marine mammals and ESA-listed species. For the most recent information on ESA Biological Opinions (BiOps) for most HMS fisheries, please refer to the Final Consolidated HMS FMP (NMFS, 2006). The Final Consolidated HMS FMP provides a comprehensive description of the Reasonable and Prudent Measures and Terms and Conditions implemented pursuant to several recent BiOps for sea turtles. Additionally, the Final Consolidated HMS FMP discusses marine mammal interactions with HMS fisheries and the impact of the Marine Mammal Protection Act (MMPA) on HMS management activities.

Since then, in 2006, NMFS convened a pelagic longline take reduction team (PLTRT) to address the serious injury and mortality of short-finned pilot whales, long-finned pilot whales, and Risso's dolphins in the mid-Atlantic portion of the Atlantic pelagic longline fishery. The PLTRT provided consensus recommendations in a Draft Take Reduction Plan (PLTRP) to NMFS. The Draft PLTRP included recommendations for management strategies and research priorities and formed the basis of a proposed rule. The proposed rule published in the *Federal Register* on June 24, 2008 (73 FR 35623) and included regulatory and non-regulatory actions to reduce serious injuries and mortalities of pilot whales and Risso's dolphins incidental to the commercial Atlantic pelagic longline fishery to insignificant levels. The final rule (74 FR 23349) published on May 19, 2009, and effective on June 18, 2009, included a special Mid-Atlantic research area, gear modifications, outreach material, observer coverage, and captains' communications. This

proposed rule will be consistent with the PLTRT regulations at 50 CFR 229.36. Fishing activities conducted under this rule will have no adverse impacts on marine mammals. Neither of the alternatives is expected to alter fishing practices, techniques, or effort in any way that would increase interactions with marine mammals.

Also, more recently, a formal section 7 consultation under the ESA was re-initiated for Amendment 2 to the Consolidated HMS FMP and completed on May 20, 2008. The BiOp concluded, based on the best available scientific information, that the shark fishery is not likely to jeopardize the continued existence of endangered green, leatherback, and Kemp's ridley sea turtles; the endangered smalltooth sawfish; or the threatened loggerhead sea turtle. The actions in Amendment 2 were not expected to increase endangered species or marine mammal interaction rates. Furthermore, the BiOp concluded that the shark fishery was not likely to adversely affect any listed species of marine mammals, invertebrates (i.e., listed species of coral) or other listed species of fishes (i.e., Gulf sturgeon and Atlantic salmon). Overall, the BiOp concluded that changes to shark management measures included in Amendment 2 will decrease the fishery's impacts on both sea turtles and smalltooth sawfish. Take of these species will continue but at a reduced level in the future because of reductions in fishing effort.

4.0 ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES CONSIDERED

NMFS, under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and the Atlantic Tunas Convention Act (ATCA), manages the U.S. fishery for Atlantic HMS. The preferred alternative discussed below would implement regulations for HMS fisheries that are compatible with regulations recommended by the GMFMC for Council-managed species. The management measures are required to comply with the Magnuson-Stevens Act, ATCA, the Endangered Species Act (ESA), and other domestic laws. The ecological, social, and economic consequences of the alternatives are discussed below.

Alternative 1 No Action

Alternative 2 *Implement Regulations for HMS Fisheries that are Compatible with those of Council-Managed Species in the Madison-Swanson, Steamboat Lumps, and Edges 40 Fathom Contour Closure Areas – Preferred Alternative*

Ecological Impacts

Alternative 1

Under Alternative 1 (No Action), the existing Madison-Swanson and Steamboat Lumps closure areas (affecting HMS fisheries) would expire on June 16, 2010, and the Edges 40 Fathom Contour closure area would not be implemented for HMS fisheries. All HMS fishing activities would be allowed within these three areas (after June 16, 2010, for Madison-Swanson and Steamboat Lumps), even though fishing activities for Council-managed species would be restricted on a year-round or seasonal basis.

The No Action alternative would create an inconsistency between the regulations implementing the Consolidated HMS FMP (swordfish, sharks, billfish, and tunas) and NMFS' Southeast Regional Office (SERO) regulations. Persons issued a permit governed under SERO regulations (e.g., a Reef Fish permit) would be prohibited from fishing in the Edges 40 Fathom Contour closure area from January – April of each year, and from fishing year-round in the Madison-Swanson and Steamboat Lumps closure areas (except when surface trolling from May – October). Persons not issued a permit governed under SERO regulations, but issued only an HMS permit would be allowed to fish in these areas. This could provide a loophole for persons who choose not to obtain a SERO permit for Council-managed species, and only obtain an HMS permit. These fishermen would have access to the three areas, and could therefore potentially reduce the conservation benefits (primarily for red grouper and gag) associated with the closures if they targeted these species illegally, under the guise of fishing for HMS, or if they caught them incidentally while targeting HMS.

All three of the proposed closure areas are located within the dominant spawning grounds for gag, which are classified as undergoing overfishing. Thus, access to the three closure areas by HMS-only permitted vessels could reduce the protection of a portion of gag spawning aggregations, and increase fishing mortality on these aggregations from both targeted and incidental catches. Conservation could also be compromised for other reef species that inhabit the closure areas including snowy grouper, red snapper, silk snapper, vermilion snapper, scamp, speckled hind, red porgy, knobbed porgy, triggerfish, greater amberjack, honeycomb moray, and bank sea bass.

The No Action alternative is expected to have only minimal environmental impacts on HMS. Overall, NMFS does not anticipate a significant change in HMS fishing effort regardless of whether the areas are open or closed to HMS fishing. Historically there has been little reported or observed HMS fishing effort in these areas, as discussed in greater detail below in the analysis of Alternative 2. Also, due to the migratory nature of HMS and the relatively small size of the closure areas, similar catch rates are likely to be achieved either within or outside of the closure area boundaries. The possible exception is for some shark species which have an affinity for ocean bottom structure. Opening these areas for HMS fisheries could potentially result in an increase in mortality on some shark species. However, the current management measures for sharks, including restrictive trip limits and closed seasons, adequately ensure that landings do not exceed levels specified in the Consolidated HMS FMP.

Alternative 2 - Preferred

Under Alternative 2, NMFS would indefinitely extend the duration of the existing Madison-Swanson and Steamboat Lumps closure areas for HMS fisheries (which are currently set to expire on June 16, 2010) to be consistent with SERO regulations for Council-managed species. The existing seasonal (May – Oct.) exemption for surface trolling would remain in effect within the two areas. Also, this alternative would implement a new seasonal closure (January – April) for HMS fisheries in an area identified as the Edges 40 Fathom Contour. No additional restrictions relative to the status quo would apply to HMS fishing in the Edges 40 Fathom Contour from May – December each year.

The practical goal of Alternative 2 is to remove potential opportunities to fish in the three proposed closure areas and reinforce the protection of spawning gag aggregations. The GMFMC has already voted to indefinitely close the Madison-Swanson and Steamboat Lumps areas to all fishing for Council-managed species on a year-round basis (except for surface trolling from May – October), and to close the Edges 40 Fathom Contour seasonally. Preferred Alternative 2 would complement these actions by implementing identical regulations for HMS-managed fisheries. This would remove a loophole for persons who might choose not to obtain a SERO permit for Council-managed species, and only obtain an HMS permit. Without implementing the complementary regulations in Preferred Alternative 2, these fishermen would have access to the three areas, and could therefore potentially reduce the conservation benefits (primarily for red grouper and gag) associated with the GMFMC closures if they targeted these species illegally, under the guise of fishing for HMS, or if they caught them incidentally while targeting HMS.

The overall goal of Alternative 2, as described in the EIS prepared for Amendment 30B by the GMFMC (GMFMC, 2008), is to protect spawning aggregations of gag grouper to prevent overfishing, improve spawning success, and to protect a portion of the offshore population of male gag grouper. Area closures do not necessarily reduce overall fishing effort, but may redirect the effort into remaining open areas. In areas of known spawning, they can reduce localized fishing mortality on spawning aggregations, and may help to increase spawning success within the area by eliminating disruption to spawning behavior from fishing activities. Additionally, incidental benefits are expected to accrue to other reef fish that occupy the same habitat. Other reef species that may benefit from the closure areas include red grouper, snowy grouper, red snapper, silk snapper, vermillion snapper, scamp, speckled hind, red porgy, knobbed porgy, triggerfish, greater amberjack, honeycomb moray, and bank sea bass. A complete description of the ecological benefits for Gulf reef fish is provided in the EIS prepared for Amendment 30B (GMFMC, 2008), and is not repeated here.

Although Alternative 2 is not specifically intended to provide protection for HMS, it could provide some minor ancillary conservation benefits for HMS as a result of the year-round prohibition on HMS fishing activities in the Madison-Swanson and Steamboat Lumps closure areas (except for surface trolling from May through October), and the seasonal closure of the Edges 40 Fathom Contour from January - April. However, any positive ecological impacts on HMS are expected to be minimal. Madison-Swanson and Steamboat Lumps have been closed to fishing for HMS (except for surface trolling on a seasonal basis) since November 1, 2006. Prior to that time, there was little reported or observed HMS fishing effort in the two areas (Figure 2). From 1997 to 2004, only one pelagic longline (PLL) set and one bottom longline (BLL) set were reported in the HMS logbook in these areas. Both sets occurred in the Madison-Swanson site. Four swordfish were kept on the PLL set, and eight swordfish were discarded. There was no reported HMS caught on the bottom longline set. With regard to observer data, only one set was observed within the areas from 1994 – 2004. The observed set occurred in 1996 and kept eight sandbar sharks (Commercial Shark Fishery Observer Program (CSFOP) data). These data indicate that comparatively little HMS commercial fishing activity has historically occurred within the Madison-Swanson and Steamboat Lumps areas, although some sandbar sharks and swordfish have been caught. Most HMS fishing activity has been reported to the west of Madison-Swanson and Steamboat Lumps.

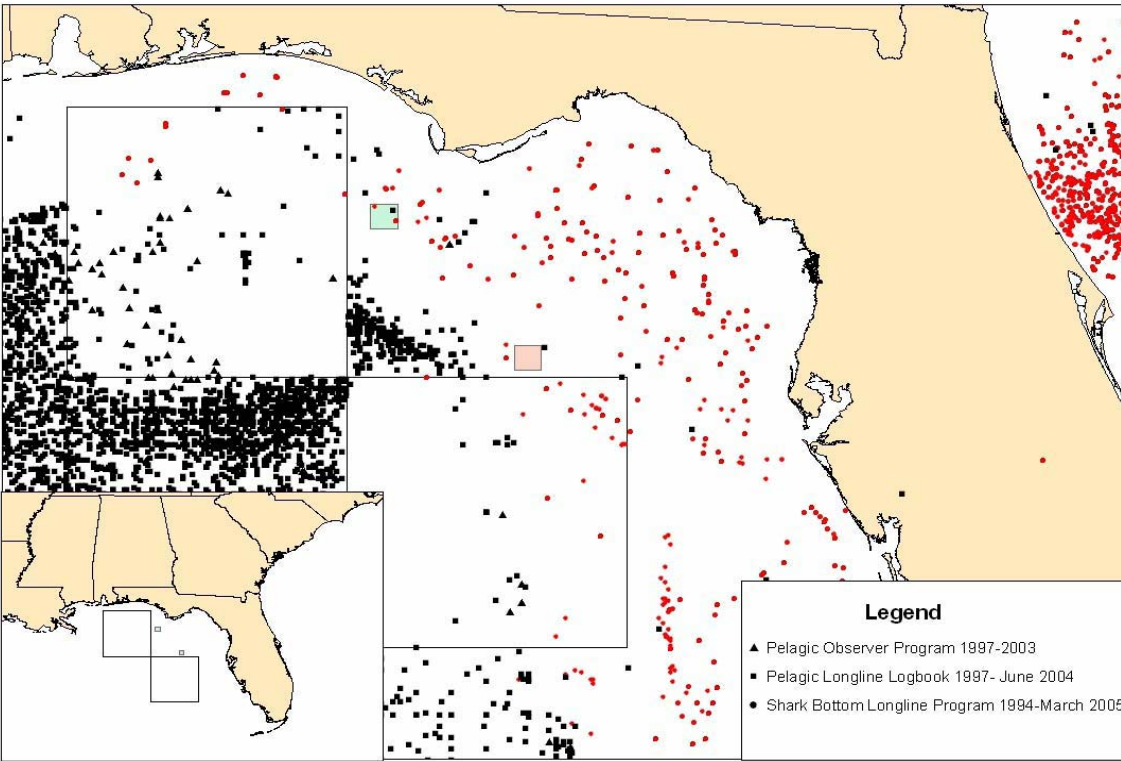


Figure 2 Pelagic and Bottom Longline Sets in the Madison-Swanson (upper left) and Steamboat Lumps (lower right) Marine Reserves. Source: HMS Logbook, Pelagic Observer Program, Shark Observer Program. The existing Desoto Canyon PLL closure area is also shown for reference.

The Edges 40 Fathom Contour seasonal closure area (Jan. – Apr.) in Alternative 2 would be a new HMS closure area. It would provide complementary closed area protection during the peak gag spawning months of February to March. However, similar to the anticipated ecological impacts associated with Madison-Swanson and Steamboat Lumps, any positive ecological impacts on HMS associated with the Edges 40 Fathom Contour are expected to be minimal, because there were no reported PLL or BLL sets in the HMS logbook in the area from 1995 – 2006 (Figure 3).

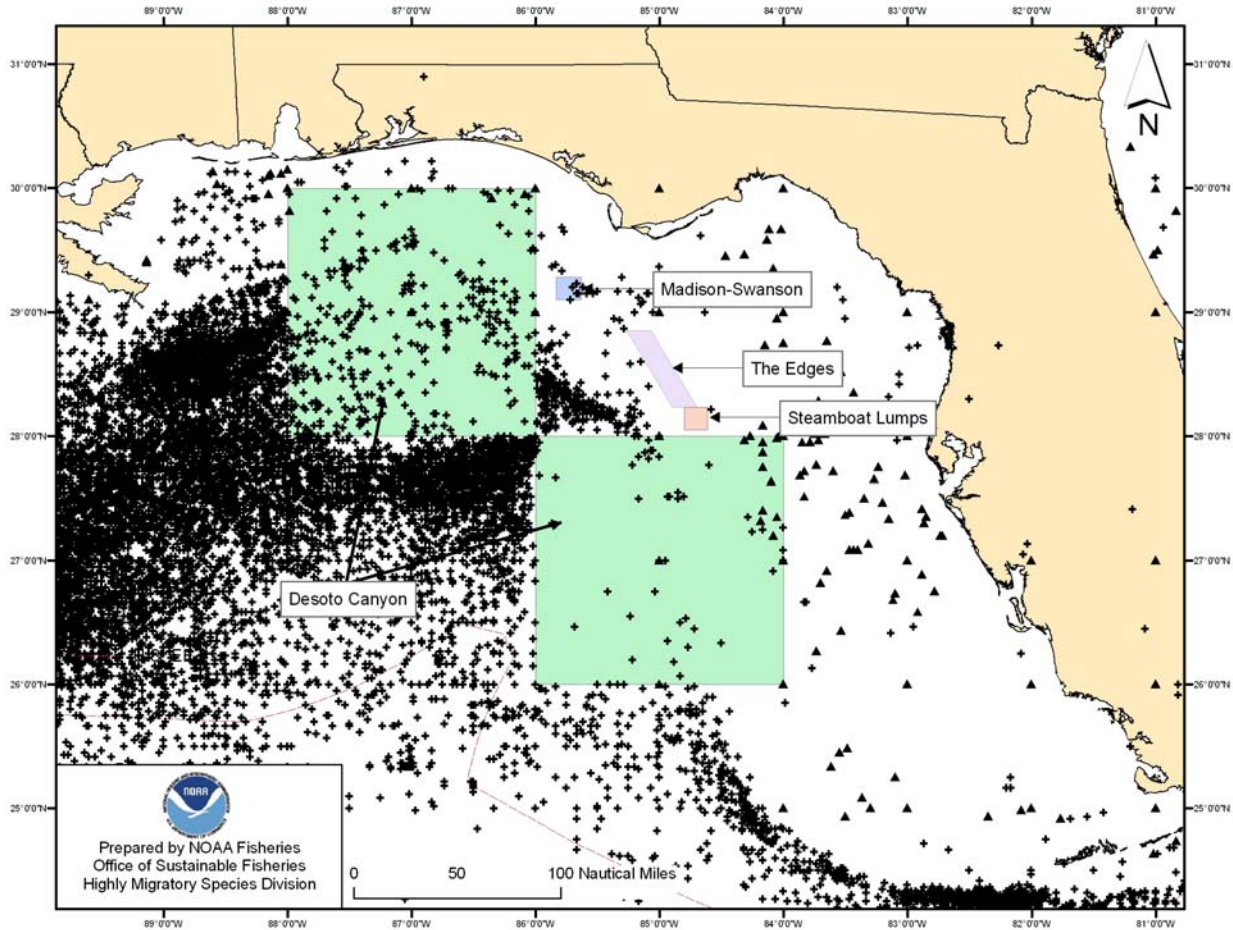


Figure 3 Pelagic Longline Sets (crosses) and Bottom Longline Sets (triangles) in the Edges 40 Fathom Contour from 1995 - 2006. Source: HMS Logbook. The existing Desoto Canyon PLL closure area is also shown for reference.

Because the closure areas in Preferred Alternative 2 are relatively small, any HMS fishing activity that otherwise would have occurred in these areas would likely relocate to nearby open areas with similar catch rates. Furthermore, because possession of Gulf reef species is already prohibited within the areas (except when transiting), bottom longline sets targeting both sharks and Gulf reef species have already decreased since initial implementation of the Madison – Swanson and Steamboat Lumps closure areas in 2000. Finally, recreational and charter/headboat (CHB) fishing trips for HMS in the preferred closure areas are not likely to be significantly curtailed because the Edges 40 Fathom Contour would remain open from May through December of each year, and surface trolling would be allowed in Madison-Swanson and Steamboat Lumps from May through October. In general, May through October represent the prime recreational fishing months for HMS in the eastern Gulf of Mexico. However, NMFS has a limited ability to analyze recreational fishing impacts because there are no available data describing the precise location of recreational HMS fishing effort, so it is not possible to determine the relative importance of these three areas to recreational HMS fishermen.

Social and Economic Impacts

Alternative 1

Under Alternative 1 (No Action), the existing Madison-Swanson and Steamboat Lumps closure areas (effecting HMS fisheries) would expire on June 16, 2010, and the Edges 40 Fathom Contour closure area would not be implemented for HMS fisheries. All HMS fishing activities would be allowed within these three areas (after June 16, 2010, for Madison-Swanson and Steamboat Lumps), even though fishing activities for Council-managed species would be restricted on a year-round or seasonal basis. The No Action alternative would create an inconsistency between the regulations implementing the Consolidated HMS FMP (swordfish, sharks, billfish, and tunas) and NMFS' SERO regulations.

The data presented above in the section entitled Ecological Impacts indicate that comparatively little HMS commercial fishing activity has historically occurred within the three areas, although some sandbar sharks and swordfish have been caught in the Madison-Swanson site. Most HMS fishing activity has been reported far to the west of Madison-Swanson, Steamboat Lumps, and the Edges 40 Fathom Contour. Thus, reopening the Madison-Swanson and Steamboat Lumps areas, and keeping the Edges 40 Fathom Contour open, is not expected to have significant economic or social impacts on commercial HMS fisheries because little fishing effort would be expected to move back in, based on historical trends.

The extent of HMS recreational and CHB fishing activity within the closure areas is unknown. It is, therefore, not possible to provide an estimate of the impacts of reopening (or keeping open) the three areas on the gross revenues and profits of CHB vessels. However, given the interest that this topic generated among the recreational fishing community during 2003 Gulf Council deliberations, it may be inferred that traditionally there has been some recreational fishing activity within these areas. NMFS did not receive any comments regarding the socio-economic impacts on recreational HMS fishermen since the initial closure of Madison-Swanson and Steamboat Lumps in 2006. Therefore, keeping the Edges 40 Fathom Contour open and reopening Madison-Swanson and Steamboat Lumps under the No Action alternative is not expected to substantially impact HMS recreational or CHB fishing versus the preferred alternative. Under both alternatives, recreational fishermen have ample opportunities to fish for HMS, particularly with surface trolling gear, during the peak summer months.

The No Action alternative could create some confusion on behalf of permit holders and enforcement officials, because the areas would be open for HMS permit holders but not for persons issued permits for Council-managed species. Therefore, enforcement would likely require extensive permit checks, as the fishing techniques for some HMS and non-HMS can be similar. This would make the closure areas more difficult to enforce, and could necessitate lengthier and more frequent boardings to check permits.

The three proposed closure areas are all located within the dominant spawning grounds for gag, which are classified as undergoing overfishing. Access to the closure areas by HMS-only permitted vessels could reduce the protection of a portion of the gag spawning aggregations, and increase fishing mortality on these aggregations from both incidental and illegally targeted catches. Conservation could also be compromised for other reef species that inhabit the closure

areas including snowy grouper, red snapper, silk snapper, vermillion snapper, scamp, speckled hind, red porgy, knobbed porgy, triggerfish, greater amberjack, honeycomb moray, and bank sea bass. Thus, there could be some short-term economic benefits associated with reopening the areas and providing more HMS fishing opportunities, but long-term adverse economic impacts could occur if protection of gag and other reef species was weakened. These impacts are described in greater detail in the EIS prepared for Amendment 30B of the Gulf Reef Fish FMP (GMFMC, 2008).

Alternative 2 - Preferred

Under Alternative 2, NMFS would indefinitely extend the duration of the existing Madison-Swanson and Steamboat Lumps closure areas for HMS fisheries (which are currently set to expire on June 16, 2010) to be consistent with SERO regulations for Council-managed species. The existing seasonal (May – Oct.) exemption for surface trolling would remain in effect within the two areas. Also, this alternative would implement a new seasonal closure (January – April) for HMS fisheries in an area identified as the Edges 40 Fathom Contour.

On a seasonal basis, these closures could potentially impact any recreational or commercial fishermen issued an HMS permit that has fished, or intends to fish, in the areas using any type of authorized HMS fishing gear.

As described above, comparatively little HMS commercial fishing activity has historically occurred within the three areas, although some sandbar sharks and swordfish have been caught in the Madison-Swanson site. Most HMS fishing activity has been reported to the west of Madison-Swanson, Steamboat Lumps, and the Edges 40 Fathom Contour. Thus, indefinitely extending the duration of the Madison-Swanson and Steamboat Lumps closure areas (with a May – Oct. surface trolling exemption), and seasonally closing the Edges 40 Fathom Contour, would not be expected to have significant economic or social impacts on commercial HMS fisheries because little fishing effort has historically occurred in these areas. Also, because the preferred closure areas are relatively small, any HMS fishing activity that otherwise would have occurred in these areas would likely relocate to nearby open areas with similar catch rates.

The extent of HMS recreational and CHB fishing activity within the closure areas is unknown. It is, therefore, not possible to provide an estimate of the impacts of closing the areas on the gross revenues and profits of CHB vessels. However, given the interest that this topic generated among the recreational fishing community during 2003 Gulf Council deliberations, it may be inferred that traditionally there has been some HMS recreational fishing activity within these areas. Because Alternative 2 includes a seasonal surface trolling allowance in the Madison-Swanson and Steamboat Lumps sites, and the Edges 40 Fathom Contour would be closed for only four months, most recreational fishing activity would be allowed. These months coincide with a period of increased HMS recreational fishing activity in the eastern Gulf of Mexico. Therefore, closing the Edges 40 Fathom Contour from January – April and closing Madison-Swanson and Steamboat Lumps (with a May – Oct. surface trolling exemption) under the Preferred Alternative is not expected to substantially impact the HMS recreational or CHB sector versus the No Action alternative. Under both alternatives, recreational fishermen would have ample opportunities to fish for HMS. Also, because the preferred closure areas are relatively small, any HMS fishing activity that otherwise would have occurred in these areas would likely relocate to nearby open areas with similar catch rates. This alternative strives to balance the need to ensure

adequate conservation benefits for reef species while minimizing regulatory effects on fisheries which have limited impacts on reef species.

Although adverse social and economic impacts on HMS fishermen are not expected to be significant for the reasons discussed above, Alternative 2 would create a new closure area (the Edges 40 Fathom Contour), and extend the duration of existing closure areas (Madison-Swanson and Steamboat Lumps) indefinitely. Therefore, the real impact on any particular fishermen would depend upon whether or not they can find other places to fish, or if the creation of the area closures causes a reduction in harvest and a loss of income for commercial fishermen. Recreational fishermen may decide to fish from other ports where they can more easily access areas that are not part of the area closures. This could indirectly impact businesses such as hotels, bait and tackle shops, marinas, etc., that now cater to fishermen who fish in these areas. If closing these areas to fishermen results in a reduction in catch for commercial fishermen, then there may also be a loss of profits and possible loss of jobs that are dependent on the fishing industry in businesses located nearest the area closures. Although any of these actions may not have a major impact on commercial and recreational fisheries, cumulatively there is the potential for an added impact when considered with other closures and regulations that restrict fishing. In the long term, if the establishment of these area closures helps to protect spawning grounds for gag grouper and aids in stock rebuilding, social and economic benefits would ultimately accrue for commercial and recreational fishermen, fishing dependent businesses, and fishing communities involved in the fishery because, presumably, there would be more fish to harvest in the future.

A positive social impact associated with the Alternative is that it could reduce confusion among permit holders and enforcement officers by improving the enforceability of the areas. The regulations applicable to HMS permit holders and permit holders of Council-managed species would be consistent. This could reduce the frequency of boardings required to check permits and enforce the areas.

Conclusion

In conclusion, under the No Action alternative, a loophole would exist for persons who choose not to obtain a SERO permit for Council-managed species, and only obtain an HMS permit. These fishermen would have access to the three areas, and could therefore potentially reduce the conservation benefits associated with the closures (primarily for red grouper and gag) if they targeted these species illegally, under the guise of fishing for HMS, or if they caught them incidentally while targeting HMS. The No Action alternative could be confusing to permit holders and may necessitate lengthier boardings by enforcement officers to conduct permit checks and perform other enforcement activities.

NMFS does not expect significant adverse social, economic, or ecological impacts on HMS fisheries from the preferred alternative. Madison-Swanson and Steamboat Lumps have been closed to permit holders of Council-managed species since 2000. These areas have also been closed to HMS permit holders since November 2006, with the exception of surface trolling from May through December. HMS logbook and observer data indicate that these relatively small areas have never had much HMS commercial fishing activities occur within them. Furthermore, the seasonal surface trolling allowance (May – October) would mitigate many of the potentially

adverse social and economic impacts on recreational HMS fishermen, since these months coincide with a period of increased HMS recreational fishing activity in the eastern Gulf of Mexico. Finally, because the Madison-Swanson and Steamboat Lumps closure areas are relatively small, any HMS fishing activity that otherwise would have occurred in these areas would likely relocate to nearby open areas with similar catch rates. The impacts of these closures would depend upon a person's ability to relocate to other open areas.

The Edges 40 Fathom Contour in Preferred Alternative 2 would be a new seasonal closure area lasting from January through April of each year. HMS logbook information indicates that this relatively small area has not had any PLL or BLL sets occur within it from 1995 - 2006. With regard to recreational HMS fishing, the area would be open from May through December of each year, which coincides with the prime recreational fishing period in the eastern Gulf of Mexico. Finally, because the Edges 40 Fathom Contour closure area is relatively small, any HMS fishing activity that otherwise would have occurred in the areas would likely relocate to nearby open areas with similar catch rates. The impacts of this closure would depend upon a person's ability to relocate to other open areas, which is primarily a function of vessel size, distance from port, and the time available for transit and fishing.

NMFS anticipates minor positive ecological impacts associated with Preferred Alternative 2. It would complement existing regulations implemented by SERO at the recommendation of the GMFMC to protect spawning aggregations of gag grouper and other reef fishes. The preferred alternative could also provide some minor ancillary conservation benefits for HMS, however, any positive ecological impacts are expected to be minimal. The preferred alternative would achieve consistency between SERO regulations and HMS regulations, and thereby reduce confusion on behalf of fishermen and improve enforceability of the closure areas. In the long term, the preferred alternative is expected to produce positive economic and ecological benefits by reducing overfishing on gag grouper.

4.1. Impacts on Essential Fish Habitat

The Magnuson-Stevens Act requires NMFS to evaluate the potential adverse effects of fishing activities on essential fish habitat (EFH). If NMFS determines that the fishing gears are having an adverse effect on HMS EFH, or on other species EFH, then NMFS must include management measures to minimize these adverse effects to the extent practicable. At this time, there is no evidence to suggest that the preferred alternative or proposed management measures in this Environmental Assessment are affecting EFH to the extent that detrimental effects can be identified on the habitat or fisheries. No HMS gear, other than potentially BLL gear, is considered to have an adverse effect on EFH. In Amendment 1 to the Consolidated HMS FMP for EFH (74 FR 28018) NMFS reviewed all available relevant information such as the intensity, extent, and frequency of any adverse effects on EFH and concluded that BLL fishing gear was not having a negative effect on EFH. The management measures considered in this EA are thus not expected to adversely impact HMS EFH, or EFH for other Federal or non-Federally managed species. NMFS will continue to work with the Regional Fishery Management Councils to identify unique areas where BLL gear may be having an adverse effect on habitat, and where the Councils may propose to prohibit BLL gear. In those cases, NMFS may consider complementary regulations to prohibit shark BLL gear as was done in the Caribbean (72 FR

5633, February 7, 2007) and most recently in the South Atlantic Marine Protected Areas (73 FR 40658, July 15, 2008).

Under Alternative 1 (No Action), the existing Madison-Swanson and Steamboat Lumps closure areas (affecting HMS fisheries) would expire on June 16, 2010, and the Edges 40 Fathom Contour closure area would not be implemented for HMS fisheries. This alternative would allow HMS BLL gear to be fished in areas where it is currently not allowed. However, historically, HMS BLL fishing activity in the Madison-Swanson and Steamboat Lumps areas has been minimal (2 BLL sets from 1996 – 2004). Also, this alternative is not expected to significantly change HMS BLL fishing practices or effort because most fishermen utilizing BLL, and holding shark permits in the eastern Gulf of Mexico, are also likely to possess permits for Council-managed species. Thus, these fishermen are already prohibited from deploying gear in the areas. It is possible, but unlikely, that the No Action alternative could alter the habitat for Gulf reef species or essential fish habitat to some extent, because BLL gear would be allowed in areas where it is currently prohibited.

To be consistent with SERO regulations for Council-managed species, Preferred Alternative 2 would extend the duration of the existing Madison-Swanson and Steamboat Lumps closure areas for HMS fisheries indefinitely, and implement a new seasonal closure area (January – April) for HMS fisheries in an area identified as the Edges 40 Fathom Contour. This alternative would retain the current regulations prohibiting HMS BLL gear year-round in the Madison-Swanson and Steamboat Lumps sites, and add a new area where HMS BLL gear would be prohibited for four months annually (the Edges 40 Fathom contour). Therefore, this alternative would not be expected to adversely alter the habitat for Gulf reef species or essential fish habitat.

4.2. Impacts on Other Finfish Species

The GMFMC requested NMFS to consider this action specifically because of the potential impact of HMS fishing activities on other finfish species, primarily gag, red grouper, and Gulf of Mexico reef fish. The complementary regulations in Preferred Alternative 2, would prevent HMS-permitted only fishermen from having access to important gag spawning areas, and would therefore reinforce the conservation benefits on other finfish species associated with the GMFMC closures.

Under Alternative 1 (No Action), the existing Madison-Swanson and Steamboat Lumps closure areas (affecting HMS fisheries) would expire on June 16, 2010, and the Edges 40 Fathom Contour closure area would not be implemented for HMS fisheries. As described above, this alternative would create an inconsistency between the regulations implementing the HMS FMP (swordfish, sharks, billfish, and tunas) and NMFS' SERO regulations. Access to the closure areas by HMS-only permitted vessels could reduce the protection of a portion of the gag spawning aggregations, and increase fishing mortality on these aggregations from both incidental and illegally targeted catches. Conservation could also be compromised for other reef species that inhabit the closure areas including snowy grouper, red snapper, silk snapper, vermilion snapper, scamp, speckled hind, red porgy, knobbed porgy, triggerfish, greater amberjack, honeycomb moray, and bank sea bass.

Preferred Alternative 2 would extend the duration of the existing Madison-Swanson and Steamboat Lumps closure areas for HMS fisheries indefinitely, and implement a new seasonal closure (January – April) for HMS fisheries in an area identified as the Edges 40 Fathom Contour. This would remove a loophole for persons who choose not to obtain a SERO permit for Council-managed species, and only obtain an HMS permit. The impact of Preferred Alternative 2 is to protect spawning aggregations of gag grouper to prevent overfishing, improve spawning success, and to protect a portion of the offshore population of male gag grouper. Additionally, incidental benefits are expected to accrue to other reef fish that occupy the same habitat.

4.3. Impacts on Protected Species Listed under the Endangered Species Act or Marine Mammal Protection Act

The alternatives analyzed in this document are not expected to result in significant changes in HMS fishing effort, location, or techniques. Traditionally, very little commercial HMS fishing activity has occurred in the three relatively small areas that are being considered for closure. Therefore, displacement of commercial HMS fishing effort is expected to be minimal. PLL vessels will continue to be required to deploy only large circle hooks, utilize specific baits, utilize release and disentanglement gear, comply with quotas, comply with VMS, abide by minimum size restrictions, and comply with large PLL closed area restrictions, among other measures. Also, HMS longline and gillnet vessel owners and operators are required to attend and successfully complete mandatory training workshops which address the safe handling and release of protected species. Finally, as required in the 2004 Biological Opinion (BiOp) for the pelagic longline fishery, NMFS monitors protected species interactions to ensure compliance with the Incidental Take Statement (ITS) specified in the 2004 BiOp. These measures have significantly reduced the bycatch of protected species in the PLL fishery, and are expected to continue to mitigate impacts on protected species if the preferred alternative is implemented.

NMFS believes that the alternatives analyzed in this document would not change the conclusion of, nor would they result in effects that have not been considered in, the 2001, 2004, and 2008 BiOps. Similarly, alternatives analyzed in this document are not expected to increase the number or rate of interactions with marine mammals. The Office of Sustainable Fisheries is currently consulting with Office of Protected Resources and has asked for concurrence with the determination that the proposed action is not likely to further impact endangered species or marine mammals.

4.4. Environmental Justice Concerns

Executive Order 12898 requires that Federal actions address environmental justice in the decision-making process. In particular, the environmental effects of the actions should not have a disproportionate effect on minority and low-income communities. The alternatives analyzed in this document are not expected to have any significant effects on human health, as seasonally closing some fishing areas does not inherently impact human health. Furthermore, available data indicates that minimal HMS fishing activity has historically occurred in these areas, so any impacts on health are expected to be minimal. Additionally, the alternatives are not expected to have significant adverse social or economic effects, and should not have a disproportionate effect, on minority and low-income communities.

4.5. Coastal Zone Management Act Concerns

NMFS has preliminarily determined that the proposed regulations would be implemented in a manner consistent to the maximum extent practicable with the enforceable policies of those Atlantic, Gulf of Mexico, and Caribbean coastal states that have approved coastal zone management programs. The proposed regulations will be submitted to the responsible state agencies for their review under Section 307 of the Coastal Zone Management Act upon filing with the Federal Register.

4.6. Comparison of the Alternatives

Table 1 compares the impacts of the alternatives considered in this document. The symbols “+”, “-“, and “0” refer to positive, negative, and zero impacts, respectively. Minor impacts, and impacts that are possible but unlikely, are denoted with a single plus or minus sign. Moderate impacts are denoted with a double plus or minus sign, and significant impacts are denoted with a triple plus or minus sign. Please refer to the preceding sections for additional explanations of the impacts associated with each alternative.

Table 1. Comparison of the Alternatives

Alternative	Ecological Impacts	Economic Impacts	Social Impacts
1 (No Action)	-	0/+	0/-
2 (Implement Complementary HMS Regulations for Madison-Swanson, Steamboat Lumps, and Edges 40 Fathom Contour-Preferred Alternative)	+	0/-	0/+

4.7. Cumulative Impacts

In general, the cumulative impact of implementing several time/area closures since 1999, in addition to other measures to reduce bycatch and bycatch mortality, has been positive ecologically, but negative socially and economically, especially for the PLL industry. The existing time/area closures have resulted in a substantial reduction in the bycatch of all non-target HMS and protected species. In addition, other actions have been taken to reduce the bycatch of protected species in HMS fisheries including requirements to post safe handling and release guidelines for incidentally captured sea turtles and marine mammals, new gear requirements to reduce sea turtle bycatch and bycatch mortality (*e.g.*, circle hooks and bait), mandatory workshop training requirements, requiring non-stainless steel corrodible hooks, line cutters, dipnets, and dehooking devices to mitigate impacts on incidentally-caught sea turtles. However, with all of the regulations designed to reduce bycatch, there has also been a substantial decline in the landings of targeted HMS. In general, additional restrictions have caused an overall decline in HMS fishing effort (number of hooks set) across nearly every region.

In 2006, NMFS determined that the establishment of complementary HMS regulations in the Madison-Swanson and Steamboat Lumps marine reserves would impact a small area and a very small proportion of the total number of vessels permitted to fish for HMS. Thus, the cumulative

impact of these closures to the existing closures was determined to be minor. Similarly, because the preferred alternative to establish complementary HMS regulations in the Madison–Swanson, Steamboat Lumps, and Edges 40 Fathom Contour areas would similarly impact a small area, and because a very small proportion of vessels permitted to fish for HMS have actually fished in the areas, NMFS considers the cumulative impact of these closures to be minor. Furthermore, cumulative impacts would be mitigated because surface trolling would be allowed in Madison–Swanson and Steamboat Lumps from May through October, and the Edges 40 Fathom Contour is only four months in duration.

In the short term, while the preferred alternative may not have a major adverse impact on commercial and recreational HMS fisheries, there may be an added cumulative adverse impact when considered with other closures and regulations that restrict fishing. In the long term, if the creation of new area closures helps to protect the spawning grounds for gag grouper, this will aid in rebuilding stocks and provide overall long-term benefits to commercial and recreational fishermen, fishing dependent businesses, and fishing communities despite the short-term negative economic impacts of the area closures.

With regard to future closures, and especially closures in the Gulf of Mexico, NMFS may consider potential closures in the future to reduce bycatch and discards of target non–HMS and protected resources. If, in the future, NMFS decides to implement new closures or to modify existing closures, NMFS would need to evaluate the ecological, economic, and cumulative impacts of the specific action being considered at that time.

5.0 MITIGATION AND UNAVOIDABLE ADVERSE IMPACTS

5.1 Mitigating Measures

Preferred Alternative 2 strives to balance the need to ensure adequate conservation benefits for reef species while minimizing regulatory effects on fisheries which have limited impacts on reef species. For this reason, it mitigates potential adverse economic impacts on some fishermen by allowing surface trolling in the Madison–Swanson and Steamboat Lumps sites for the months of May through October, which are prime fishing months for HMS in the eastern Gulf of Mexico. Additionally, the Edges 40 Fathom Contour would be a seasonal closure, with open fishing for the months of May through December. With regards to Council-managed species, the Edges 40 Fathom Contour closure is being implemented in conjunction with a repeal of the commercial February 15 to March 15 closed season for gag, red grouper, and black grouper. Some fishermen may consider the additional closed area to be an acceptable trade-off for the restoration of year-round grouper fishing.

5.2 Unavoidable Adverse Impacts

The preferred alternative will assist NMFS in achieving the objectives of this rulemaking and the Magnuson–Stevens Act. The purpose of this action is to implement complementary HMS regulations to reduce overfishing of gag grouper. No unavoidable adverse ecological impacts are anticipated, but there may be some minor unavoidable adverse economic impacts resulting from all HMS permitted vessels being prohibited from fishing in three closure areas in the Gulf of Mexico (Madison–Swanson, Steamboat Lumps, and the Edges 40 Fathom Contour). The

economic impacts are expected to be minimal because very little HMS fishing activity has taken place historically in these areas. Also, there is a seasonal exemption for surface trolling so the proposed measures are not expected to substantially alter recreational fishing practices or fishing effort. NMFS expects that the bycatch and bycatch mortality of endangered species or marine mammals would remain within the estimated mortalities of the incidental take statement considered in the June 2001 Biological Opinion (BiOp) on Atlantic HMS Fisheries and the June 2004 BiOp for the HMS pelagic longline fisheries.

5.3. Irreversible and Irrecoverable Commitment of Resources

The preferred alternative would assist NMFS in achieving the objective of this rulemaking and the Magnuson-Stevens Act, and is not expected to have any irreversible or irretrievable commitments of resources.

6.0 ECONOMIC EVALUATION

This section assesses the economic impacts of the alternatives presented in this document. Additional economic and social considerations and information are discussed in Chapters 3, 4, 7, and 8 of this document.

6.1. Number of Permit Holders

In order to examine the baseline universe of entities potentially affected by the preferred alternative, NMFS analyzed the number of commercial swordfish, shark, and tuna longline permits that were issued as of May 2008 in Destin, FL; Panama City, FL; Apalachicola, FL; and Madeira Beach/St. Petersburg/Clearwater FL. Also, NMFS examined the number of HMS CHB (CHB) permits, and HMS Angling permits that were issued in these same locations. The following table provides information on sectors that the preferred alternative may impact. More detailed information is available in the 2008 HMS SAFE Report (NMFS, 2008).

Table 2. HMS Permit Holders in Potentially Affected Communities as of May 2008.

Community	Swordfish (Directed & Incidental)	Shark (Directed & Incidental)	Atlantic Tunas Longline	CHB
Destin, FL	1	2	2	30
Panama City, FL	9	15	13	29
Apalachicola, FL	0	1	0	0
Madeira Beach/St. Petersburg/Clearwater, FL	11	21	8	11

Community	Swordfish (Directed & Incidental)	Shark (Directed & Incidental)	Atlantic Tunas Longline	CHB
TOTAL	21	39	23	70

Table 2 indicates that, as of May 2008, there could be as many as 21 commercial permit holders in the potentially affected communities that possess “valid” pelagic longline permits because they possess the requisite three limited access permits for swordfish, shark and tunas longline permits. These vessels are primarily home ported in the Panama City, FL and the Madeira Beach/St. Petersburg, FL areas. The number of potentially affected commercial shark permit holders could be as many as 39 vessels (note – shark permits are “valid” without other permits). These vessels are also primarily home ported in the Panama City, FL and Madeira Beach/St. Petersburg/Clearwater, FL areas.

Table 2 also indicates that there are a relatively large number of HMS CHB vessels (70) in the communities of Destin, FL; Panama City, FL; and Madeira Beach/St. Petersburg/Clearwater, FL.

The total number of HMS Angling category permits issued as of May 2008 was 26,933. These permits were distributed among many communities, both large and small, primarily along the eastern seaboard and the Gulf of Mexico. Approximately 500 – 1000 HMS Angling category permits were issued to recreational anglers located from Destin, FL to St. Petersburg, FL

In summary, the preferred alternative analyzed for this proposed rule could potentially impact HMS commercial permit holders possessing the requisite three permits to fish with pelagic longline gear (~ 21 vessels), commercial shark permit holders (~ 39 vessels), HMS CHB permit holders (~ 70 vessels), and HMS Angling category permit holders (~ 1000 vessels). In total, the preferred alternative could impact approximately 1,130 HMS permit holders. The HMS Angling category permit is strictly for recreational fishing activities, and does not authorize the commercial sale of any HMS. Thus, HMS Angling category permit holders are not considered small business entities. Therefore, about 130 of these permit holders are considered small entities.

6.2. Variable Costs and Net Revenues

In 2003, NMFS initiated mandatory cost-earnings reporting for selected vessels to improve the economic data available for all HMS fisheries. In the past, most of the studies regarding pelagic longline variable costs and net revenues that were available to NMFS analyzed older data from 1996 and 1997. The Consolidated HMS FMP (NMFS, 2006) provides a summary of several past studies on the variable costs and net revenues of longline fleets.

An analysis of the 2004 HMS logbook cost-earnings data provided information regarding the costs and revenue of a cross section of vessels operating in HMS fisheries. The data contains a total of 579 trips taken by 51 different vessels. As described in a 1996 study by Larkin *et al.*

(2000), median values are reported in the 2004 analysis. Median gross revenues per trip for 2004 were approximately \$13,639 (all dollar amounts are converted to 2009 dollars using the U.S. Bureau of Labor Statistics inflation calculator). Median total costs per trip were \$4,893 (2009 dollars) (compared to \$4,501 (2009 dollars) in the Larkin *et al.* (2000) study), with fuel costs making up \$638 (13 percent) of those costs. Median net revenue in this sample was \$7,576 (2009 dollars) per trip (compared to \$11,692 (2009 dollars) in the Larkin *et al.* (2000) study). The typical trip was nine days long and involved six sets. Dividing net revenue per trip (\$7,576) by the average number of sets (six) yields a net revenue per set of \$1,263 (2009 dollars). The median number of crew was three and the average share paid to crew was 11 percent of net revenue (\$833 per trip). The captain's share of net revenue was 20 percent (\$1,516) and the owner's share was reported to be 50 percent (\$3,788).

6.3. Expected Economic Impacts of the Alternatives Considered

NMFS considered and analyzed two alternatives. The following section discusses the economic impacts associated with the two alternatives.

Alternative 1

Under the first alternative (No Action), the existing Madison-Swanson and Steamboat Lumps closure areas (affecting HMS fisheries) would expire on June 16, 2010, and the Edges 40 Fathom Contour closure area would not be implemented for HMS fisheries.

Madison-Swanson and Steamboat Lumps have been closed to most fishing for HMS since November 1, 2006. Prior to that time, there was little reported or observed HMS fishing effort in the two areas (Figure 2). From 1997 to 2004, only one pelagic longline (PLL) set and one bottom longline (BLL) set were reported in the HMS logbook in these areas. Both sets occurred in the Madison-Swanson site. Four swordfish were kept on the PLL set, and eight swordfish were discarded. There was no reported HMS caught on the bottom longline set. With regard to observer data, only one set was observed within the areas from 1994 – 2004. The observed set occurred in 1996 and kept eight sandbar sharks (CSFOP data). These data indicate that comparatively little HMS commercial fishing activity has historically occurred within the two areas.

There were three reported or observed commercial HMS sets in the Madison-Swanson and Steamboat Lumps areas from 1994 to 2004. None of the sets yielded more than eight HMS. Assuming that these trends continue (three additional sets occur in the areas in the next ten years), if an average set yields \$1,263 in net revenue, then as much as \$3,789 could be gained. Distributing this additional revenue among the approximately 60 PLL and commercial shark vessels potentially impacted by this action yields an average of \$63 that could be gained per vessel over the next ten years. Alternatively, one vessel could potentially gain \$3,789 by fishing three sets. Of course, if historic trends do not continue under Alternative 1, and more vessels choose to fish in these areas, the economic gains could be significantly higher. There would be no change in revenues if the Edges 40 Fathom Contour were to remain open, as it is currently open.

The extent of HMS recreational and CHB fishing activity within the closure areas is unknown. It is, therefore, not possible to provide an estimate of the impacts of reopening (or keeping open) the areas on the gross and net revenues of CHB vessels. However, given the interest that this topic generated among the recreational fishing community during 2003 Gulf Council deliberations, it may be inferred that traditionally there has been some HMS recreational fishing activity within these areas. Opening these areas (or keeping them open) would provide more area for vessels to fish in, but it is not known if opening these areas would result in more CHB fishing trips. If more CHB trips were booked because the areas were open, then net revenues would increase. However, because the preferred alternative includes a seasonal surface trolling allowance in the Madison-Swanson and Steamboat Lumps sites, and the Edges 40 Fathom Contour would be closed for only four months, most recreational fishing activity would be allowed under both alternatives. These months coincide with a period of increased HMS recreational fishing activity in the eastern Gulf of Mexico. Therefore, keeping the Edges 40 Fathom Contour open and reopening Madison-Swanson and Steamboat Lumps under the No Action alternative is not expected to substantially impact the HMS recreational or CHB sector versus the preferred alternative. Under both alternatives, recreational fishermen would have ample opportunities to fish for HMS.

Alternative 2 - Preferred

Preferred Alternative 2 would extend the duration of the existing Madison-Swanson and Steamboat Lumps closure areas for HMS fisheries indefinitely, and implement a new seasonal closure (January – April) for HMS fisheries in an area identified as the Edges 40 Fathom Contour.

As discussed above, there were three reported or observed commercial HMS sets in the Madison-Swanson and Steamboat Lumps areas from 1994 to 2004. None of the sets yielded more than eight HMS. Assuming that these trends continue and there is no redistribution of effort, if an average set yields \$1,263 in net revenue, then as much as \$3,789 could be lost, distributed among the approximately 60 PLL and commercial shark vessels potentially impacted by this action. This equates to an average of \$63 per vessel that could be lost over a period of ten years by keeping Madison-Swanson and Steamboat Lumps closed. Alternatively, one vessel could potentially lose \$3,789 by losing the ability to fish three sets. However, since the Madison-Swanson and Steamboat Lumps areas have been closed since 2006, the abundance of HMS may have increased in these areas and larger potential losses of revenue could occur. There were no reported HMS sets in the Edges 40 Fathom Contour from 1995 – 2006, so no change in revenue is expected as a result of closing the Edges 40 Fathom Contour annually from January - April.

The extent of HMS recreational and CHB fishing activity within the closure areas is unknown. It is, therefore, not possible to provide an estimate of the impacts of keeping Madison-Swanson and Steamboat Lumps closed, and seasonally closing the Edges 40 Fathom Contour on the gross and net revenues of CHB vessels. However, given the interest that this topic generated among the recreational fishing community during 2003 Gulf Council deliberations, it may be inferred that traditionally there has been some HMS recreational fishing activity within these areas. Closing these areas (or keeping them closed) would provide less area for some vessels to fish in, but it is not known if closing these areas would result in fewer CHB fishing trips. If

fewer CHB trips were booked, then annual net revenues of CHB vessels would decrease. However, because the preferred alternative includes a seasonal (May – Oct.) surface trolling allowance in the Madison-Swanson and Steamboat Lumps sites, and the Edges 40 Fathom Contour would be closed for only four months, most recreational fishing activity would be allowed under both alternatives. These months coincide with a period of increased HMS recreational fishing activity in the eastern Gulf of Mexico. Therefore, closing the Edges 40 Fathom Contour from January – April, and closing the Madison-Swanson and Steamboat Lumps (with a May – October surface trolling allowance under the preferred alternative) is not expected to substantially impact the HMS recreational or CHB sector versus the No Action alternative. Under both alternatives, recreational fishermen would have ample opportunities to fish for HMS.

7.0 REGULATORY IMPACT REVIEW

This Regulatory Impact Review (RIR) is conducted to comply with Executive Order 12866 (E.O. 12866) and provides and analyses of the economic benefits and costs of each alternative to the nation and the fishery as a whole. Certain elements required in an RIR are also required as part of an EA. Thus, this section should be considered only part of the RIR; the rest of the RIR can be found throughout this document.

7.1. Description of the Management Objectives

Please see Chapter 1 for a description of the management objectives associated with the two alternatives.

7.2. Description of the Fishery

Please see Chapter 3, Chapter 6, and the Final Consolidated HMS FMP (NMFS, 2006) for a description of the fisheries that could be affected by this rulemaking.

7.3. Statement of the Problem

Please see Chapter 1 for a description of the problem and need for these management actions.

7.4. Description of Each Alternative

Please see Chapter 2 for a summary of each alternative and Chapter 4 for a complete description of each alternative and its expected ecological, social, and economic impacts. Chapter 6 provides additional information related to the impacts of the alternatives.

7.5. Economic Analysis of Expected Effects of Each Alternative Relative to the Baseline

NMFS does not believe that national net benefits and costs would change significantly in the long run as a result of implementation of the preferred alternative compared to the baseline of no action. The action being considered in this document is at the request of the GMFMC which has already closed Madison-Swanson, Steamboat Lumps, and the Edges 40 Fathom Contour (Jan. to Apr.) to fishing activities for Council-managed species. The preferred alternative in this

document would complement the GMFMC action by closing a potential loophole whereby HMS-only permitted vessels could fish in these areas and potentially compromise the effectiveness of the closures at protecting gag grouper and other reef fishes. It is anticipated that the present value of gross and net revenues for HMS fisheries would not substantially change, but that ultimately depends upon the ability of HMS fishermen to have access to other open areas during the period in which the three closures are in effect.

Table 4 indicates possible changes associated with each alternative. Under Alternative 1 (No Action), the existing Madison-Swanson and Steamboat Lumps closure areas (effecting HMS fisheries) would expire on June 16, 2010, and the Edges 40 Fathom Contour closure area would not be implemented for HMS fisheries. Preferred Alternative 2 would indefinitely extend the duration of the existing Madison-Swanson and Steamboat Lumps closure areas for HMS fisheries (which are currently set to expire on June 16, 2010), and implement a new seasonal closure (January – April) for HMS fisheries in an area identified as the Edges 40 Fathom Contour.

Table 4. Net Economic Benefits and Costs for each Alternative.

Alternatives	Net Economic Benefits	Net Economic Costs
Alternative 1 (No Action)	Potential for small increase in HMS landings due to absence of Madison-Swanson & Steamboat Lumps closure areas after June 16, 2010.	Potential for continued overfishing on gag grouper and longer recovery period. Increased enforcement costs due to need for more frequent permit checks because of inconsistent regulations in closure areas.
Alternative 2 <i>Implement Regulations for HMS Fisheries that are Compatible with those of Council-Managed Species in the Madison-Swanson, Steamboat Lumps, and Edges 40 Fathom Contour Closure Areas (Preferred Alternative)</i>	Shorter recovery period for gag grouper from current overfishing status. Reduced enforcement costs due to consistent regulations between SERO and HMS	Potential for minor decrease in HMS landings due to presence of Madison-Swanson, Steamboat Lumps, and Edges 40 Fathom Contour closures areas for HMS fisheries.

7.6. Summary

Under E.O. 12866, a regulation is a “significant regulatory action” if it is likely to: (1) have an annual effect on the economy 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; and (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the legal mandates, the President’s priorities, or the principles set forth in the Executive Order. The preferred alternative described in this document does not meet the above criteria. Therefore, under E.O. 12866, the preferred alternative described in this document has been determined to be not significant for the purposes of E.O. 12866. A summary of the expected net economic benefits and costs of each alternative, which are based on supporting text in Chapters 4 and 6, can be found in Table 4.

8.0 COMMUNITY PROFILES

This chapter serves as a brief overview and determination of the social impacts associated with the alternatives. A more comprehensive description of community profiles is provided in Section 9.0 of the Final Consolidated HMS FMP (NMFS, 2006), and more recently in Section 6.0 of the 2008 HMS SAFE Report (NMFS, 2008).

8.1. Introduction

Mandates to conduct social impact assessments come from both the NEPA and the Magnuson-Stevens Act. NEPA requires federal agencies to consider the interactions of natural and human environments by using a “systematic, interdisciplinary approach, which would ensure the integrated use of the natural and social sciences...in planning and decision-making” (§102(2)(A)). Moreover, agencies need to address the aesthetic, historic, cultural, economic, social, or health effects, which may be direct, indirect, or cumulative. Consideration of social impacts is a growing concern as fisheries experience increased participation and/or declines in stocks. With an increasing need for management action, the consequences of these actions need to be examined in order to mitigate the negative impacts experienced by the populations concerned.

Social impacts are generally the consequences to human populations that follow from some type of public or private action. They may include alterations to the ways people live, work or play, relate to one another, and organize to meet their needs. In addition, cultural impacts, which may involve changes in values and beliefs that affect people’s way of identifying themselves within their occupation, communities, and society in general, are included under this interpretation. Social impacts analyses help determine the consequences of policy action in advance by comparing the status quo with the projected impacts. Although public hearings and scoping meetings provide input from those concerned with a particular action, they do not constitute a full overview of the affected constituents.

Florida would likely be the state most impacted by the preferred alternative. Any negative social impacts associated with this rulemaking would most likely occur in communities closest to the proposed closure areas with high numbers of recreational HMS anglers and commercial HMS-only permitted vessels. The following communities have been identified as meeting these criteria: Destin, FL; Panama City, FL; Apalachicola, FL; and Madeira Beach/St. Petersburg, FL.

NMFS does not anticipate that the preferred alternative would result in significant social impacts. The proposed closure areas (Madison-Swanson, Steamboat Lumps, and the Edges 40 Fathom Contour) would be closed seasonally to all HMS fishing activities. Therefore, on a seasonal basis, they could potentially impact any recreational or commercial fishermen issued an HMS permit that has fished in the areas, or intends to fish in the areas, using any type of authorized HMS fishing gear. The main gear types affected by this action are pelagic longline, bottom longline, and handgear. However, there have only been three documented HMS sets in these areas in recent years. On the basis of this information, the areas do not appear to be significant commercial fishing areas for HMS. Furthermore, the current seasonal (May – Oct.) exemption

for surface trolling would remain in effect within the Madison-Swanson and Steamboat Lumps closure areas. Also, the Edges 40 Fathom Contour would be open to all HMS fishing activities from May – December of each year. These times coincide with a period of increased recreational fishing effort in the eastern Gulf of Mexico. The preferred alternative strives to balance the need to ensure adequate conservation benefits for reef species while minimizing regulatory effects on fisheries which have limited impacts on reef species.

8.2. State and Community Profiles

A description of community profiles is provided in Section 9.0 of the Final Consolidated HMS FMP (NMFS, 2006), and more recently in Section 6.0 of the 2008 HMS SAFE Report (NMFS, 2008).

9.0 OTHER CONSIDERATIONS

9.1. National Standards

The analyses in this document are consistent with the National Standards (NS) set forth in the 50 CFR part 600 regulations.

According to the latest stock assessment, overfishing is occurring on gag grouper. This proposed rule is consistent with NS 1, in that it would continue to prevent overfishing of gag in the Gulf of Mexico. Because the alternatives are based on the results of the SEDAR 10 Advisory Report (SEDAR 10 2006) for gag grouper, subsequent reanalysis of that assessment conducted in July and September 2007 (SEFSC 2007), the most recent stock assessments for HMS, and logbook and observer data for HMS, the alternatives considered are based on the best scientific information available (NS 2). The analyses included self-reported, observer, and stock assessment data which provide for the management of the species throughout its ranges (NS 3). The proposed action does not discriminate against fishermen in any state because the regulations apply to all HMS permit holders (NS 4) nor do they alter the efficiency in utilizing the resource (NS 5). With regard to NS 6, the proposed action takes into account any variations that may occur in the fishery and the fishery resources. Additionally, NMFS considered the costs and benefits of these management measures economically and socially under NS 7 and 8 in sections 4, 6, 7, and 8 of this document. The proposed measure would ensure that bycatch is continued to be accounted for in HMS fisheries, and that NMFS has considered the impact of the proposed action on protected species (NS 9). Finally, this proposed rule would not require fishermen to fish in an unsafe manner as the areas proposed for closure are relatively small and other nearby areas with similar catch rates would remain open (NS 10).

9.2. Paperwork Reduction Act

This action does not contain any new collection-of-information requirements for purposes of the Paperwork Reduction Act.

9.3. Federalism

This action does not contain regulatory provisions with federalism implications sufficient to warrant preparation of a Federalism Assessment under E.O. 13132.

10.0 LIST OF PREPARERS

A team of individuals prepared this document from the Highly Migratory Species Management Division, Office of Sustainable Fisheries (F/SF1), NMFS, including

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Individuals in other offices within NOAA contributed, including NMFS Southeast Regional Office staff and the Office of General Counsel.

11.0 LIST OF AGENCIES AND PERSONS CONSULTED

Discussions pertinent to the formulation of the proposed action involved input from a variety of scientific and constituent interest groups including the GMFMC (including commercial and recreational fishermen, and environmental advocates), NMFS' Southeast Fisheries Science Center, NMFS' Southeast Regional Office, and the NOAA's General Counsel for Fisheries.

12.0 REFERENCES

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November 7, 2008

Dr. Margo Schulze-Haugen, Chief
NMFS Highly Migratory Species Division
1315 East-West Highway
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005756 NOV 20 08

Dear Dr. Schulze-Haugen:

The Gulf of Mexico Fishery Management Council (Council) recently took final action on Reef Fish Amendment 30B, which creates a new seasonal area fishing closure off of northwest Florida called the Edges 40 Fathom Contour, and repeals the June 16, 2010 sunset provision for the Madison-Swanson and Steamboat Lumps area closures. With this letter we request that the Highly Migratory Species Division adopt compatible fishing restrictions for HMS species in the Edges 40 Fathom Contour, and that the HMS Division repeal its sunset provision for the Madison-Swanson and Steamboat Lumps areas.

The Edges 40 Fathom Contour area is defined by the following geographic points:

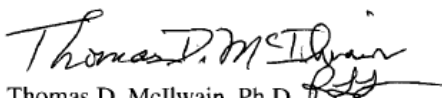
NW = 28° 51'N, 85° 16'W NE = 28° 51'N, 85° 04'W
SW = 28° 14'N, 84° 54'W SE = 28° 14'N, 84° 42'W

Within this time/area closure, all fishing is prohibited January through April, all fishing is allowed May through December.

All three of these areas are located within the dominant spawning grounds for gag, which is classified as undergoing overfishing. The purpose of these actions is to provide protection for a portion of the gag spawning aggregations, and to help reduce fishing mortality on these aggregations from both targeted and incidental catches.

The Council appreciates your attention to this request. Attached are copies of both Reef Fish Amendment 30B and the proposed rule.

Sincerely,


Thomas D. McIlwain, Ph.D.
Chairman

SA

Attachments: Reef Fish Amendment 30B (see Sections 2.11 and 2.12, pages 93-107)
Proposed rule for Amendment 30B (see pages 3-4)

c: Gulf Council, Technical Staff