



PUBLIC HEARING SUMMARY

SNAPPER GROUPER AMENDMENT 14

AUGUST 2006

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ABBREVIATIONS AND ACRONYMS

ALS	Accumulative Landings System
ACCSP	Atlantic Coastal Cooperative Statistics Program
B	A measure of fish biomass either in weight or other appropriate unit
B_{MSY}	The biomass of fish expected to exist under equilibrium conditions when fishing at F_{MSY}
B_{OY}	The biomass of fish expected to exist under equilibrium conditions when fishing at F_{OY}
B_{CURR}	The current biomass of fish
C	Catch expressed as average landings over some appropriate period
CPUE	Catch per unit effort
DEIS	Draft Environmental Impact Statement
EFH	Essential Fish Habitat
EFH-HAPC	Essential Fish Habitat - Habitat Area of Particular Concern
EIS	Environmental Impact Statement
ESA	Endangered Species Act of 1973
F	A measure of the instantaneous rate of fishing mortality
F_{CURR}	The current instantaneous rate of fishing mortality
F_{MSY}	The rate of fishing mortality expected to achieve MSY under equilibrium conditions and a corresponding biomass of B_{MSY}
F_{OY}	The rate of fishing mortality expected to achieve OY under equilibrium conditions and a corresponding biomass of B_{OY}
FEIS	Final Environmental Impact Statement
FMU	Fishery Management Unit
MARMAP	Marine Resources Monitoring Assessment and Prediction Program
MFMT	Maximum Fishing Mortality Threshold
MMPA	Marine Mammal Protection Act of 1972
MRFSS	Marine Recreation Fisheries Statistics Survey
MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
MSST	Minimum Stock Size Threshold
MSY	Maximum Sustainable Yield
NEPA	National Environmental Policy Act of 1969
OY	Optimum Yield
RIR	Regulatory Impact Review
SEDAR	Southeast Data, Assessment and Review
SFA	Sustainable Fisheries Act
SIA	Social Impact Assessment
SPR	Spawning Potential Ratio
SSR	Spawning (biomass) per Recruit
T_{MIN}	The length of time in which a stock could be rebuilt in the absence of fishing mortality on that stock
TAC	Total Allowable Catch

INTRODUCTION

This Public Hearing Summary is taken from the Council's Snapper Grouper Amendment 14. It is intended to provide a short summary of the Council's proposed actions. The full Amendment 14 document is available on CD and on the Council's web site (www.safmc.net). Please refer to the full amendment document for the Sections referenced and for the scientific papers cited. There will be a hard copy of the full amendment available for viewing at each public hearing.

ABSTRACT

The South Atlantic Fishery Management Council (SAFMC) proposes ten management actions to amend the current Snapper Grouper Fishery Management Plan (FMP). The primary purpose of these actions is to employ a collaborative approach to identify Marine Protected Area (MPA) sites with the potential to protect a portion of the population and habitat of slow growing, long-lived deepwater snapper grouper species (speckled hind, snowy grouper, Warsaw grouper, yellowedge grouper, misty grouper, golden tilefish, and blueline tilefish) from directed fishing pressure to achieve a more natural sex ratio, age, and size structure within the proposed MPAs, while minimizing adverse social and economic impacts.

Eight of the actions would establish Marine Protected Areas (MPAs); one off southern North Carolina, three off South Carolina, one off Georgia, and three off Florida. The MPAs are intended to be used in concert with traditional management measures to enhance the optimum size, age, and genetic structure of slow growing, long-lived deepwater snapper grouper species.

The ninth action considers requiring Vessel Monitoring Systems (VMS) on all commercial snapper grouper vessels or only those with longline gear onboard to increase enforcement of the prohibition on fishing for or possessing snapper grouper species within the MPAs.

The tenth and final action would prohibit use of shark bottom longlines in the MPAs to protect deepwater species and their habitat.

SUMMARY

Purpose and Need

Recent stock assessments indicate snowy grouper, golden tilefish, vermilion snapper, and black sea bass are experiencing overfishing (NMFS 2005b). Snowy grouper, black sea bass, and red porgy are overfished (NMFS 2005b). While we do not know the status of all snapper grouper species, it is a safe presumption based on the data we do have that the size, age, and genetic structure of many snapper grouper species has been altered by fishing pressure. Amendment 13C will provide management measures that will end overfishing of snowy grouper, golden tilefish, vermilion snapper, and black sea bass. Amendment 15 will specify rebuilding plans for snowy grouper, black sea bass, and red porgy.

Many snapper grouper species are vulnerable to overfishing because they are long-lived (e.g., snowy grouper, golden tilefish, red snapper, gag, scamp, red grouper, red porgy), protogynous, that is change sex usually from females to males as they grow older/larger (e.g., snowy grouper, speckled hind, Warsaw grouper, yellowedge grouper, gag, scamp, red porgy, black sea bass), form spawning aggregations (e.g., snowy grouper, gag, scamp, red snapper), and suffer high release mortality in deep water. Deepwater species (snowy grouper, golden tilefish, speckled hind, Warsaw grouper, blueline tilefish, and misty grouper) are most vulnerable to overfishing because they live for longer than 50 years, do not survive the trauma of capture, and are protogynous (groupers) or exhibit sexual dimorphism that is males and females grow at different rates (tilefishes). Data deficiencies make it difficult for fishery scientists and managers to develop management measures that can be trusted to sustain stocks over time, particularly for those species that are very vulnerable to overfishing while attempting to minimize, to the extent practicable, the adverse socioeconomic impacts of management measures on fishing communities.

The primary purpose of this action is to employ a collaborative approach to identify MPA sites with the potential to protect a portion of the population and habitat of long-lived, slow growing, deepwater snapper grouper species (speckled hind, snowy grouper, Warsaw grouper, yellowedge grouper, misty grouper, golden tilefish, and blueline tilefish) from directed fishing pressure to achieve a more natural sex ratio, age, and size structure within the proposed MPAs, while minimizing adverse social and economic effects. Marine protected areas (MPAs) are the most effective fishery management tool that allows deepwater snapper grouper species to reach their natural size and age, protect spawning locations, and provide a refuge for early developmental stages of fish species.

To determine alternatives for the location, size, and orientation of the MPAs, the Council considered the specific goals of: (1) Utilizing a collaborative process to select MPAs; (2) Maximizing the biological benefits; (3) Minimizing the adverse social and economic effects; (4) Maximizing MPA enforceability; and (5) Maximizing monitoring capabilities. The goals are statements of a desired outcome in terms of MPA location, size, and orientation from biological, social, economic, and enforcement perspectives. Objectives include criteria the Council considered when trying to achieve these goals. The goals and objectives were developed through discussions among various interest

groups, Council committees, Advisory Panels (e.g., snapper grouper, law enforcement), scientific committees, and the public. The alternative comparison summaries in Section 2 of this amendment summarize the degree that each proposed site meets each goal.

Preferred Management Measures

This Amendment contains management alternatives that use marine protected areas (MPAs) to aid in the recovery of overfished deepwater snapper grouper stocks and to ensure the persistence of healthy fish stocks, fisheries, and habitats. Specifically the Council is using MPAs as a management tool that will promote the optimal size, age and genetic structure of these slow-growing, long-lived deepwater snapper grouper species. Figures 1 and 2 below present the alternatives being considered in this amendment. Listed immediately following are the preferred alternatives.

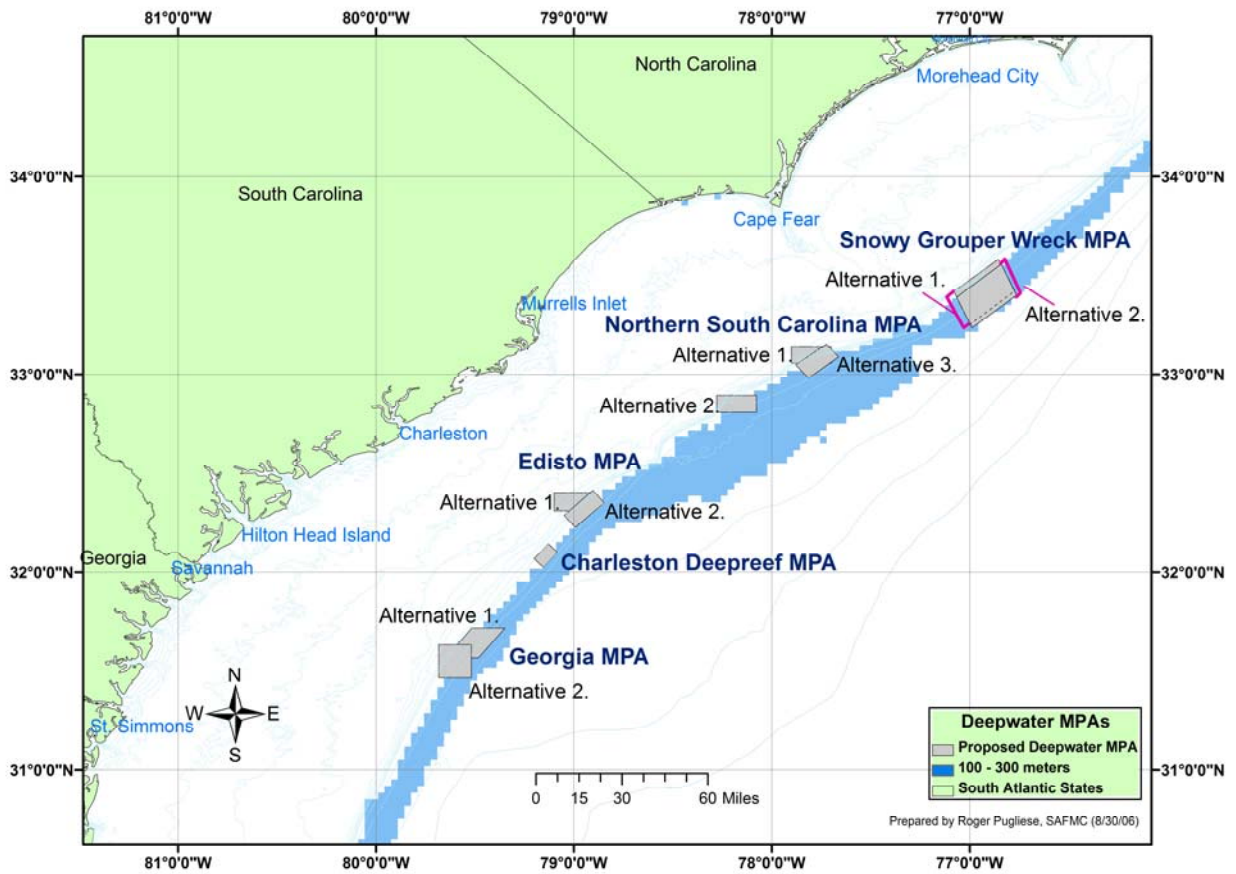


Figure 1. Proposed deepwater MPAs off North Carolina, South Carolina and Georgia.

[Note: This figure appeared in the Council’s Newsletter with the incorrect labels on the Northern South Carolina MPA sites. Alternatives 2 & 3 were inadvertently reversed in the newsletter. The Council’s preferred alternative is Alternative 2 as shown above.]

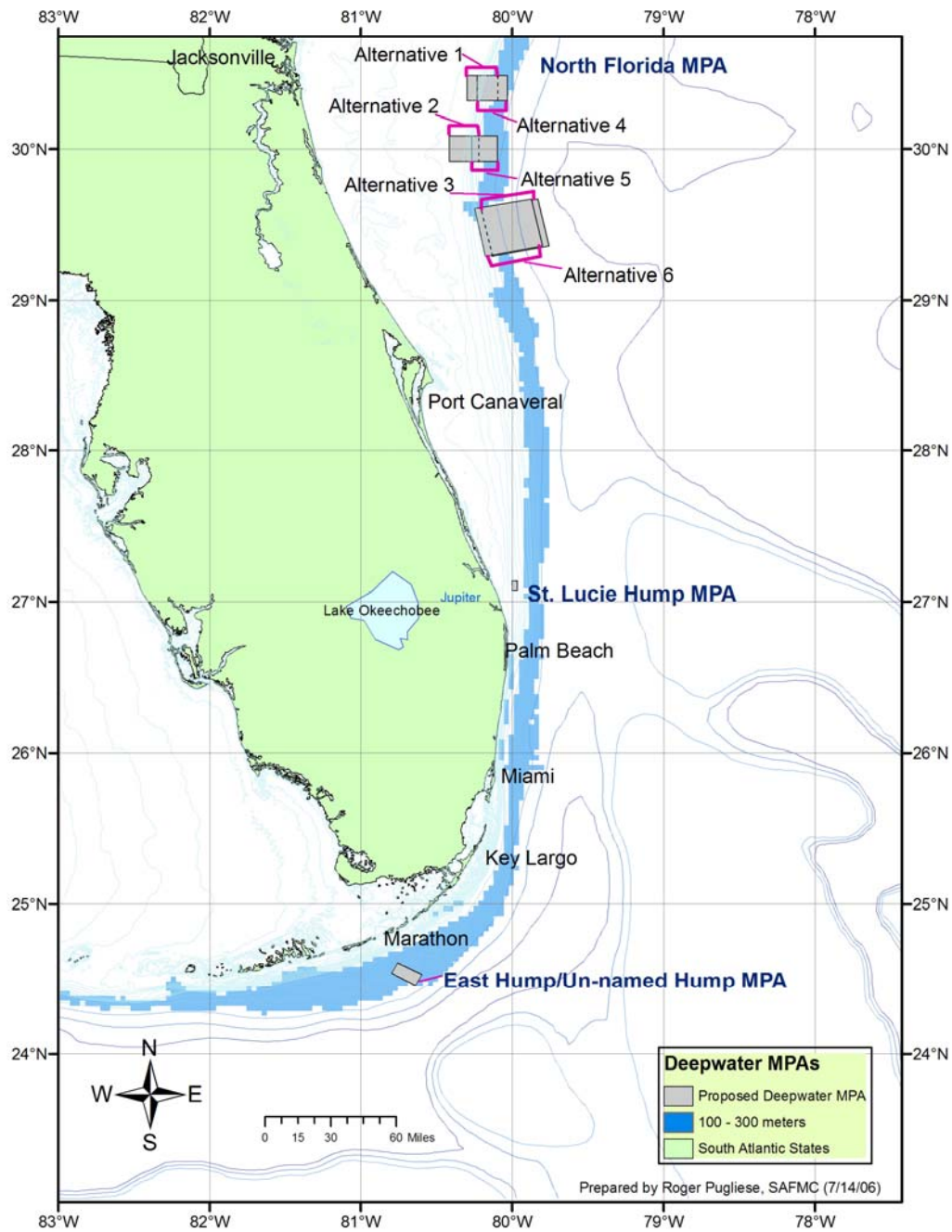


Figure 2. Proposed deepwater MPAs off east Florida.

[Note: This figure appeared in the Council's Newsletter with the incorrect labels on the Northern Florida MPA sites. Alternatives 3 & 6 were inadvertently reversed in the newsletter. The Council does not have a preferred alternative for this MPA.]

The following list shows the Council's preferred alternatives where they have picked preferred. The full amendment contains all the alternatives, Figures 1 and 2 contain all the alternative MPA sites, and the article at the end of this summary discuss all the alternative MPA sites.

Snowy Grouper Wreck MPA

Alternative 1 (Preferred). Establish a Type 2 MPA that protects the Snowy Grouper Wreck off North Carolina in the area that is bound by the following coordinates: The northwest corner at 33°25'N, 77°4.75'W; northeast corner at 33°34.75'N, 76°51.3'W; southwest corner at 33°15.75'N, 77°0'W; and the southeast corner at 33°25.5'N, 76°46.5'W (Figure 1).

Northern South Carolina MPA

Alternative 2 (Preferred). Establish a Type 2 MPA in the area bounded by the following coordinates: The northwest corner at 32°53.5' N, 78°16.75' W; the northeast corner at 32°53.5' N, 78°4.75' W; the southwest corner at 32°48.5'N, 78°16.75' W; and the southeast corner at 32°48.5' N, 78°4.75' W (Figure 1).

Edisto MPA

Alternative 1 (Preferred). Establish a Type 2 MPA in the area bounded by the following coordinates: The northwest corner at 32°24'N, 79°6'W; the northeast corner at 32°24'N, 78°54'W; the southwest corner at 32°18.5'N, 79°6'W; and the southeast corner at 32°18.5'N, 78°54'W (Figure 1).

Georgia MPA (Tilefish MPA)

Alternative 1 (Preferred). Establish a Type 2 MPA off Georgia in the area bounded by the following coordinates: The northwest corner at 31°43'N, 79°31'W; the northeast corner at 31°43'N, 79°21'W; the southwest corner at 31°34'N, 79°39'W; and the southeast corner at 31°34'N, 79°29'W (Figure 1).

North Florida MPA (Jacksonville/St. Augustine Ridge MPA)

Alternative 4 (Preferred). Establish a Type 2 MPA off north Florida in the area bounded by the following coordinates: The northwest corner at 30°29'N, 80°14'W; the northeast corner at 30°29'N, 80°2' W; the southwest corner at 30°19'N, 80°14'W; and the southeast corner at 30°19'N, 80°2'W (Figure 2).

St. Lucie Hump MPA

Alternative 1 (Preferred). Establish a Type 2 MPA protecting St. Lucie Hump, in the area bounded by the following coordinates: The northwest corner at 27°8'N, 80°W; the northeast corner at 27°8'N, 79°58'W; the southwest corner at 27°4'N, 80°W; and the southeast corner at 27°4'N, 79°58'W (Figure 2).

East Hump/Un-named Hump MPA

Alternative 1 (Preferred). Establish a Type 2 MPA protecting the East Hump in the area bounded by the following coordinates: The northwest corner at 24°36.5'N, 80°45.5'W; the northeast corner at 24°32'N, 80°36'W; the southwest corner at 24°32.5'N, 80°48'W; and the southeast corner at 24°27.5'N, 80°38.5'W (Figure 2).

Charleston Deep Artificial Reef MPA

The Council has no preferred alternative at this time for the Charleston deep artificial reef MPA. The public is encouraged to comment and provide guidance to the Council on whether this MPA should be established.

Alternative 1. Establish an experimental artificial reef Type 2 MPA off the Coast of South Carolina in the area identified by the following boundaries: The northwest corner at 34°3' N, 76°42'W; the northeast corner at 34°3'N, 76°38.75'W; the southwest corner at 34°28'N, 76°42'W; and the southeast corner at 34°28'N, 76°38.75'W (Figure 1).

Alternative 2. No action.

Vessel Monitoring System (VMS)

The Council has no preferred alternative at this time for VMS. The public is encouraged to comment and provide guidance to the Council on whether vessel monitoring systems should be required.

Alternative 1. Require VMS on all commercial snapper grouper vessels.

Alternative 2. Require VMS on all commercial snapper grouper vessels with longline gear aboard.

Alternative 3. No action.

Shark Bottom Longlines

Alternative 1 (Preferred). Prohibit the use of shark bottom longlines within MPAs.

Affected Environment

The immediate impact area would be the proposed MPA sites and surrounding waters (the reader is to refer to Section 2.0 for maps and coordinates). Since the MPA boundaries would be solely political in nature and do not prohibit immigration and emigration of fish, and fish larvae, the geographic scope of the CEA must be expanded beyond the sites. Tagging studies have not been conducted on deep water species (i.e. snowy grouper or golden tilefish); however, it is believed that movement of these species is limited (see Section 3.0 for a discussion of species movement). Large scale movement of mid-shelf species (vermilion snapper, black sea bass, and red porgy) has not been documented (McGovern and Meister 1999). However, snowy grouper, golden tilefish, vermilion snapper, black sea bass, and red porgy have pelagic eggs and larvae that may remain in the water column for extended periods of time and travel long distances before late stage larvae or juveniles assume a demersal existence.

In light of the available information, the extent of the boundaries would depend upon the degree of fish immigration/emigration and larval transport, whichever has the greatest geographical range. The Cumulative Effects Analysis (CEA) cannot put geographical boundaries in terms of coordinates, but recognizes that the proper geographical boundary to consider effects on the biophysical environment is larger than the MPA sites. The ranges of affected species are described in Section 3.0. The most measurable and substantial effects would be limited to the MPA sites.

Section 3.1 provides a description of the essential fish habitat. The biological/ecological environment is described in Section 3.2. Descriptions of the human and administrative environments are described in Sections 3.3 and 3.4 respectively.

Environmental Consequences

Biological, social, and economic impacts of measures proposed in this Amendment are evaluated. The amendment evaluates the practicability of taking additional action to minimize bycatch and bycatch mortality in the South Atlantic snapper grouper fishery using the ten factors provided at 50 CFR 600.350(d)(3)(i). In summary, the preferred MPA alternatives are likely to reduce bycatch within the closed areas. However, effort could increase outside the closed areas resulting in no net reduction in bycatch.

Elimination of fishing pressure and bycatch within the MPAs could result in an increase in the mean size/age and biomass of snowy grouper, golden tilefish, Warsaw grouper, blueline tilefish, speckled hind, and mid-shelf species that occur within the preferred MPAs alternatives. Bycatch of speckled hind and Warsaw grouper is very high and establishment of MPAs could be of particular benefit to these species. Furthermore, bycatch of snowy grouper and golden tilefish may increase as a result of management measures imposed through Amendment 13C further enhancing the benefits of the MPAs.

Many of the proposed MPAs are important nursery areas to juvenile speckled hind, Warsaw grouper, and snowy grouper that are large enough to be targeted with fishing gear. Some of the MPAs occupy a broad depth zone, which includes juvenile and adult stages of deepwater species as well as adult mid-shelf species. These MPAs are likely to

protect a greater diversity of species and life history stages than MPAs with a narrow depth range. Therefore, ecological changes are expected to occur in the community structure of reef ecosystems within the MPAs as a result of actions that would eliminate fishing pressure within the closed areas.

In addition to ecological changes within the MPAs, establishment of MPAs and elimination of bycatch in the closed areas could result in ecological changes in surrounding areas. For example, many of the species that are known to occur in the MPAs such as gag and greater amberjack may move hundreds of miles each year, presumably to spawn (McGovern *et al.* 2006). Other species such as snowy grouper, speckled hind, and Warsaw grouper may only remain in the MPA for a portion of their life history since these species move into deeper water with increasing size and age. With increasing size and density of fish species within MPAs, there may be spillover into adjacent reef habitats. Furthermore, spawning of a number of deepwater (e.g., golden tilefish, speckled hind, and blueline tilefish) and shelf-edge species (e.g., vermilion snapper, red porgy, gag, scamp, etc.) has been documented in the preferred MPA alternatives. Thus, the MPAs may serve as a source of spawning products to surrounding areas.

Economic Impacts

A Delphi study is currently being conducted with the objective of assessing the economic impacts of the MPAs proposed in Amendment 14. Consequently, the following discussion about the economic effects of the proposed MPAs is preliminary and limited to the economic impacts of MPAs in general. Refer to Section 4.1.2 for more detailed discussions of qualitative economic effects of Type II marine protected areas (MPAs) in general and the quantitative economic effects of the proposed vessel monitoring system (VMS) requirement in this regulatory amendment.

Amendment 14 proposes to augment traditional methods of management with establishment of Type II marine protected areas in an effort to minimize the dissipation of economic rents and improve the biological health of deepwater resources throughout the jurisdiction of the South Atlantic Fishery Management Council. The economic impacts caused by these proposed MPAs will be greatly dependent upon the economic effects of Amendment 13C, which has yet to be implemented and its effects realized.

Economic benefits and costs resulting from MPA protection in general may be characterized as either consumptive or non-consumptive. Consumptive costs and benefits affect the profitability of the South Atlantic Snapper Grouper (SASG) commercial fishing fleet, the satisfaction of recreational fishermen, and the efficient use of society's resources. Non-consumptive benefits and costs include societal losses and gains as well as effects on fishery management.

Most of the consumptive costs associated with a Type II MPA network can be generalized as displacement effects directly incurred by recreational and commercial vessels that normally fish in the newly protected areas. Direct displacement effects (costs) to fishermen unable to fish in an MPA may include a decrease in catch levels; an

increase in trip-level costs associated with searching for new fishing grounds; an increase in opportunity costs associated with learning a new type of fishing; congestion and user conflicts on new fishing grounds; and increased harvest and personal risk. Displacement effects have a negative impact on the predicted value of an MPA network; however, fishermen may be able to mitigate these costs by redirecting effort to open areas and targeting different species. Although displaced fishermen avoid some displacement costs as a result of these actions, the addition of new fishing effort to open areas could have an extra negative effect on the health of other species.

Fishermen who currently fish in proposed marine protected areas bear the majority of the short-term costs associated with protection. However, due to the lack of property rights in the fishery, there is no guarantee that displaced individuals will reap the benefits of stock recovery in the future. If spillover effects are realized and aggregate harvests increase, the relative profitability of targeting the protected species in open areas will increase, and effort will shift towards these species as fishermen seek to maximize their personal gains in an open access scenario. This effort could include new entrants to the deepwater fishery, which would create crowding externalities for the originally displaced vessels. Thus, MPA regulations without corresponding effort restrictions may lead to an inequitable distribution of long-term benefits and inefficient harvesting practices if spillover effects are realized from the protected areas.

A possible indirect consumptive cost is the short-run impact that a reduction in income has on the surrounding communities. If displaced fishermen cannot mitigate all losses incurred from the establishment of MPAs, their communities likewise will be negatively affected as less income flows through different sectors of the local economy. Fishing income originally spent in the community by fishermen cycles throughout the regional economy producing a multiplier effect that results in total regional expenditures that exceed the original income. The amount of fishing income lost and the magnitude of the multiplier effect determine the extent of the negative impact on the predicted value of an MPA.

Consumptive benefits could be realized over the long-run if spillover effects are assumed to affect aggregate harvest levels in the remaining fishable areas as stocks become healthier. Major consumptive benefits include stock replenishment and spillover effects, increased stock biomass, increased harvest levels, and reduced variability of harvests and revenues.

Non-consumptive costs are incurred by federal management to implement and enforce MPAs. Non-consumptive benefits include option, bequest, and existence values that derive from increased species and habitat protection, as well as increases in biodiversity, improved habitat conditions and species' population structure(s), reduced risk associated with uncertain stock assessments, and the creation of experimental undisturbed areas for biological research.

It is estimated that 15 percent of commercial fishing vessels with snapper grouper permits currently have VMS. Alternative 1, which requires VMS on all commercial snapper

grouper vessels, would require 906 of 1,066 vessels to obtain VMS; and Alternative 2, which requires VMS on all commercial snapper grouper vessels with longline gear onboard, would require 63 of 74 vessels to obtain a VMS unit. The cost of a VMS unit is estimated to range from \$1,700 to \$2,995. Table 4-10 summarizes the fixed costs of the alternatives. Of those that require a VMS unit, Alternative 1 has the greatest fixed cost (\$1,540,200 to \$2,713,470) compared to Alternative 2 (\$107,100 to \$188,685). Similarly, Alternative 1 has the highest annual cost (\$460,512 to \$757,722) compared to Alternative 2 (\$31,968 to \$45,658) (Table 4-11).

Given that only 2% of the 1,563 observed shark bottom longline trips intercepted any of the proposed MPAs over the past 12 years, the level of impact on shark longline vessels is expected to be minimal. The proposed MPAs are small and for a vessel to change the area of a set, would only involve steaming fewer than 10 miles. Affected vessels will forego some revenue from the loss of the bycatch from within the proposed MPAs. This expanded harvest was estimated to be approximately 40,000 groupers, tilefish, and black sea bass over 12 years, for a total of 3,333 fish per year. If this harvest is divided up among the 100 active vessels, the total is 33 fish per vessel per year. If you assume on the high end that each fish weighed 20 pounds that would be 660 pounds. Using the price of \$2 per pound from the high price category (Figure 3-27), the potential revenue loss per vessel would be \$1,320 per vessel per year.

Social Impacts

Refer to Sections 4.1.3, 4.2.3, 4.3.3, 4.4.3, 4.5.3, 4.6.3, 4.7.3, 4.8.3, 4.9.3, 4.10.3, and 4.11.3 for more detailed discussions of the social effects of the proposed measures.

The social and economic impacts caused by Amendment 14 are greatly dependent upon the impacts caused by Amendment 13C. The lower trip limit and drastically reduced quota for deepwater species implemented by Amendment 13C could make it unprofitable for boats to travel to some of the proposed MPAs, such as the Snowy Wreck and Northern South Carolina MPA, so the effects caused by Amendment 14 could be relatively minor. However, the reduction in the amount of fish caught as a result of the MPAs or as a result of the MPAs coupled with Amendment 13C is likely to have a negative impact on fish houses and dealers that rely on deepwater species as a part of their annual round. Fish houses and dealers throughout the Carolinas can be adversely impacted because of their relationship to each other and potential lack of supply from their own fishermen and from those that land and sell with other dealers. It is common for fish houses to buy from other fish houses in order to meet the demand of their clientele. A loss of supply for one area may affect the productivity of the fish houses and dealers of another.

With pressure from increased coastal development and a continued rise in property value for coastal communities, revenue reductions associated with Amendments 13C and 14 may lead some to sell or convert their docks and marinas. This would make it more difficult for commercial fishermen to exist due to a lack of available infrastructure. The loss of infrastructure means that there are numerous directly and indirectly associated businesses that can be negatively impacted, and as fish houses close, the workers are let

go. If a marina is sold, it might have a serious impact on the sale of fishing supplies, such as fuel, bait, and tackle, and the number of trips. A reduction in the number of commercial fishing trips would represent a loss of annual wages to crew who are paid on a per trip basis or share program.

Any gear prohibition has social impacts as it increases the level of regulations and stress on fishermen. This is balanced by the need to protect the habitat in the MPAs which will provide benefits to a greater number of individuals than the numbers prevented from using shark bottom longlines in the MPAs.

The economic impacts described above are not that large. Given the level of other regulations affecting fishermen, the social impacts from preventing use of bottom longlines within the MPAs is not expected to be very large.

Conclusions

The proposed actions are consistent with the goals and objectives of the Snapper Grouper FMP as amended. It is anticipated the proposed actions will protect a portion of the population and habitat of long-lived, slow growing, deepwater snapper grouper species (speckled hind, snowy grouper, Warsaw grouper, yellowedge grouper, misty grouper, golden tilefish, and blueline tilefish) from directed fishing pressure. These actions should begin to move the populations towards a more natural sex ratio, age, and size structure within the proposed MPAs, while minimizing adverse social and economic effects.

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To provide additional information for members of the public to use when developing public hearing and/or written comments, we are including the recent article on MPAs from our newsletter:

SOUTH ATLANTIC UPDATE ARTICLE (SUMMER 2006)

Council Approves Marine Protected Areas for Public Hearings

A series of hearings to be held along the southeastern coast in September

In June, the South Atlantic Council approved Amendment 14 to its Snapper Grouper Fishery Management Plan for public hearings, taking the next step in the management process to implement a series of 8 marine protected areas in federal waters off the South Atlantic. The document approval represents a benchmark, culminating years of planning, recommendations from advisory panels and public input through workshops, scoping meetings and informational hearings.

Utilizing a collaborative approach to identify the sites, the 8 proposed MPAs are being considered to protect a portion of the population and habitat of long-lived, deepwater snapper grouper species (snowy grouper, misty grouper, speckled hind, yellowedge grouper, warsaw grouper, golden tilefish, and blueline tilefish) from directed fishing pressure. Proposed as "Type II" MPAs, fishing for and possession of snapper grouper species would be prohibited in the area, but fishermen would be allowed to troll for pelagic species such as tuna, mackerel, and billfish. The Council intends to work closely with NOAA Fisheries' Highly Migratory Species Division to prohibit the use of bottom longlines by shark fishermen in the proposed MPAs.

Deepwater species are most vulnerable to overfishing because they live for longer than 50 years, do not survive the trauma of being captured from deeper water, and have complex life histories. While the Council does not know the status of all snapper grouper species, it's a safe presumption based on the data that are available, that the size, age, and genetic structure of many snapper grouper species has been altered by fishing pressure. Recent stock assessments indicate that snowy grouper, golden tilefish, vermilion snapper, and black sea bass are experiencing overfishing. Snowy grouper, black sea bass, and red porgy are overfished. Amendment 13C, currently under review by NOAA Fisheries, will provide management measures to end overfishing, while Amendment 15, currently under development by the Council, establishes rebuilding plans for overfished stocks.

The MPAs are intended to be used in concert with traditional management measures (bag limits, trip limits, size limits, ect.) to enhance the optimum size and age structure of these slow growing, long-lived species. In addition, the proposed MPAs are intended to serve as a nursery area and refuge for deepwater species during various developmental stages. "While we recognize the need for adequate enforcement and monitoring, the benefits of the marine protected areas to the habitat where these deepwater species are found is indisputable," said Council Chairman Louis Daniel. "By protecting these areas we are sending a strong message of the importance that habitat plays in producing sustainable fisheries. The Council will continue to address the importance of habitat protection in

fisheries management through the development of its Fisheries Ecosystem Plan and Comprehensive FEP Amendment.”

History

The Council has a long history of considering MPAs as a management tool for the snapper grouper management complex, a diverse group of 73 species that includes snappers, grouper, jacks, porgies, tilefish, grunts, and sea basses. Dating back to 1990, the Council began to explore MPAs through technical advisors, scoping, scientific review panels, and later, the formation of its MPA Advisory Panel and Committee.

More recently, the Council has utilized input from its advisory panels along with a series of stakeholder meetings, public scoping meetings, and workshops in the development of MPAs. Following an unprecedented joint “Mega-AP” meeting held in 2001 and with input from technical committees, the Council determined it would focus on sites that would be most beneficial to overfished deepwater snapper grouper species.

In 2004, an Informational Public Hearing Document was taken out to public hearings. Social and economic information gathered during those hearings was utilized in the development of Amendment 14. A complete history of the Council’s development of MPAs to date is included in the amendment.

Enforcement and Evaluation

How are you going to enforce these areas and how do you know that MPAs are effective?

It is a common question and one of the more controversial aspects and concerns that the Council has to deal with in developing MPAs. Effective enforcement is critical to success in achieving biological objectives and maintaining a positive public attitude toward MPAs. The Council has worked closely with its Law Enforcement Advisory Panel to address enforcement concerns and has utilized their recommendations whenever possible, while at the same time giving consideration to social and economic impacts. For example, in the law enforcement world “bigger is better” when it comes to ease of enforcement, but compromises were made after considering public concerns.

Vessel Monitoring Systems (VMS) are proposed as an enforcement tool in Amendment 14. VMS is an electronic tracking technique used by NOAA’s Office for Law Enforcement to monitor a vessel’s movement. VMS are currently required on vessels involved in the rock shrimp fishery in the South Atlantic. “VMS has been identified by our law enforcement arm as being an extremely effective tool which facilitates their ability to enforce regulations,” said George Gieger, Chairman of the Law Enforcement Committee. The amendment includes several options for using VMS, although the Council rejected an alternative that would require the systems on all recreational and charter vessels. The current VMS monitoring infrastructure is unable to handle the volume of vessels of such a requirement. Additional alternatives regarding commercial vessels will be included in the Public Hearing Document. The Council also recognizes that local compliance and self monitoring are needed for MPAs to be effective.

Public perception is often that closed areas are created and then left un-enforced, un-monitored and un-questioned. The Council intends to challenge this perception by reviewing and re-evaluating the measures in place for the suite of MPAs. Amendment 14 includes a directive for the development of an Evaluation Plan addressing needed research and monitoring, outreach, and law enforcement needs. The Evaluation Plan will be created with input from various advisory panels and the Council's Scientific and Statistical Committee. As an extension of the Evaluation Plan, the Council will appoint an MPA Evaluation Team to review research and monitoring, outreach, and law enforcement activities and determine if the Evaluation Plan has been adequately executed and for determining the success of MPAs.

"These proposed areas have been selected through a deliberative public process," said Dr. Daniel. "We encourage the public to review all of the proposed alternatives within Amendment 14, and to attend the public hearings to ask questions and provide the Council with further insight into these marine protected areas."

Summary of Proposed MPA Sites

The Public Hearing Document for Amendment 14 contains a list of alternatives for each proposed MPA site, providing options for site location, size, and orientation based on earlier input. In addition, the document includes options for requiring the use of Vessel Monitoring Systems (VMS) to aid in enforcement of the areas. During the June 2006 meeting, the Council approved its preferred alternatives to take to public hearings. These will be noted in the document along with a list of alternatives that were considered by the Council but rejected. Copies of the Public Hearing Document for Amendment 14 (including maps) will be posted on the Council's web site at www.safmc.net along with the Pubic Hearing Schedule by August 31, 2006.

(1) Snowy Grouper Wreck MPA

Location: 2 alternatives, approximately 55 nautical miles southeast of Southport, NC

Size: approximately 10 X 15 nautical miles

The area contains a wreck that was once the site of a known aggregation of snowy grouper, which was believed to be targeted heavily by a few individuals in the late 1990s. Recent research indicates the wreck still holds snowy grouper. Anecdotal information suggests other smaller wrecks with snowy grouper in the proposed MPA. Commercial fishermen also report many snowy grouper, speckled hind, gag, and red porgy in the area. The area is heavily fished by fishermen who troll for tuna, marlin, dolphin, and wahoo during certain times of the year.

(2) Northern South Carolina MPA

Location: 3 alternatives, approximately 55 nautical miles from Murrells Inlet, SC

Size: 5 X 10 nautical miles

These are areas of low relief containing some hard bottom. Information received during the public input process indicates the area is fished mostly in the winter and holds deepwater species including snowy grouper and speckled hind as well as other snapper grouper species such red porgy, triggerfish, and gag. Fishermen refer to the area as "smurfville" because it also holds many small vermilion snapper.

(3) Edisto MPA

Location: 2 alternatives, approximately 45 nautical miles southeast of Charleston, SC

Size: 5 X 10 nautical miles

Both alternative sites reside in an area of upwelling that results from deflection of the Gulf Stream at the Charleston Bump and establishment of currents known as the Charleston Gyre. Upwelling results in nutrient rich water beneficial to early life stages of fishes. The Charleston Gyre may help retain spawning products within the vicinity as well as transport some species such as gag and snowy grouper towards

nursery areas. Alternative 1, oriented perpendicular to the coast, encompasses deepwater and mid-shelf habitat. It is fished heavily by commercial, headboat, and private recreational fishermen according to public testimony. Alternative 2 is oriented along the shelf break, overlapping with Alternative 1. Both alternative sites are known to hold snowy grouper and speckled hind.

(4) Georgia MPA

Location: 2 alternatives, 65 nautical miles east of Wassaw Sound, GA

Size: 10 X 10 nautical miles

Input from the public indicates that golden tilefish are often caught within both sites. The area is occasionally fished commercially for snapper grouper species but lies east of an area called “Triple Ledge” that is an important area for the commercial industry. Trolling for pelagic species such as tuna and dolphin constitutes the majority of fishing activity that occurs in these sites. Alternative 1 is located parallel to the coast while Alternative 2 is perpendicular.

(5) North Florida MPA

Location: 6 alternatives, locations ranging from 57 nautical miles off the mouth of the St. John’s River near Jacksonville (Alternative 1) to off Ormond Beach (Alternative 6)

Size: Alternatives range in size from 10 X 10 nautical miles to 22 X 23 nautical miles

The larger number of alternatives is the result of input received during the public scoping and meeting process, and input from the Council to capture a greater amount of deepwater habitat. Public input indicates that Alternatives 1 and 2 are heavily fished both commercially and recreationally for mid-shelf snapper grouper species. A third alternative was proposed during the Informational Public Hearing held in Jacksonville, Florida by meeting attendees. Additional alternatives were later added by the Council as a possible compromise between what they believed fishermen requested at public hearing and what was originally proposed, adding deeper areas as alternatives.

(6) St. Lucie Hump MPA

Location: 1 alternative, 9 nautical miles southeast of St. Lucie Inlet, FL

Size: 2 X 4 nautical miles

According to input from the Council’s advisors and from public meetings, this area is very habitat rich with speckled hind, juvenile snowy grouper, warsaw grouper and mid-shelf species such as sea bass, red porgy, and red snapper. Advisors also indicate the area holds the desired deepwater species, specifically snowy grouper and golden tilefish. It is located between two inlets, making the area less popular to fish than other local, hardbottom areas such as “Pushbutton Hill”. The area is heavily used by fishermen trolling for pelagic species.

(7) East Hump/Un-named Hump MPA

Location: 1 alternative, approximately 13 nautical miles from Long Key, FL

Size: 5 X 10 nautical miles

The Council had originally proposed an MPA in the area of the well known Islamorada Hump, an area socially and economically important to this section of the Florida Keys. The East Hump/Un-named Hump alternative was proposed to the Council by local fishing organizations and are believed to have similar biological benefits with less social and economic impacts due to its location being distant from Marathon and Islamorada fishing ports.

(8) Charleston Deep Artificial Reef MPA

Location: 1 alternative, approximately 50 nautical miles from Charleston Harbor, SC

Size: 3.5 X 6 nautical miles

Throughout the many rounds of public meetings the Council has held regarding MPAs, one of the most common sentiments from members of the public was that the Council use artificial reefs instead of natural bottom as MPAs and/or build more artificial reefs to mitigate for the loss to users of natural bottom that has been designated as an MPA. Advisors to the Council have also suggested that artificial reefs be used as a tool to study the enforcement of closed areas, monitoring of closed areas, and many other scientific questions. The Council is considering establishing an experimental artificial MPA to help study some of these questions. This proposed MPA is in a depth range preferred by juvenile snowy grouper, speckled hind, and warsaw grouper.

Public Hearings Scheduled for September

The Council will hold a series of 8 public hearings regarding Amendment 14 to the Snapper Grouper Fishery Management Plan. A copy of the Public Hearing Document for Amendment 14, including maps and a listing of the Council’s preferred alternatives for site locations will be publicized and posted at www.safmc.net upon completion.

**SNAPPER GROUPE AMENDMENT 14 (MPA) PUBLIC HEARINGS
(All Hearings Begin @ 6 P.M.)**

<u>Tuesday, September 5, 2006</u> Hampton Inn 678 Citadel Haven Dr. Charleston, SC 29414 Phone: 843-573-1200	<u>Wednesday, September 6, 2006</u> Baywatch Resort 2701 S. Ocean Blvd. N. Myrtle Beach, SC 29582 Phone: 843-272-4600
<u>Thursday, September 7, 2006</u> Holiday Inn Sunspree 1706 N. Lumina Ave. Wrightsville Beach, NC 28480 Phone: 910-256-2231	<u>Monday, September 11, 2006</u> Holton’s Seafood Restaurant 13711 E. Oglethorpe Hwy. Midway, GA 31320 Phone: 912-884-9151
<u>Tuesday, September 12, 2006</u> Hampton Inn St. Augustine 430 A1A Beach Blvd. St. Augustine, FL 32080 Phone: 904-471-4000	<u>Wednesday, September 13, 2006</u> Hutchinson Island Marriott 555 N.E. Ocean Blvd. Stuart, FL 34996 Phone: 777-225-3700
<u>Thursday, September 14, 2006</u> Islander Resort MM 82.1 Oceanfront Islamorada, FL 33036 Phone: 305-664-2031	<u>Tuesday, September 19, 2006</u> Westin Hotel 2 Grasslawn Ave. Hilton Head, SC 29928 Phone: 843-681-4000

Written comments on Amendment 14 must be received in the Council office on or before 5 P.M. on Friday, September 29, 2006. Comments may be mailed or faxed to the Council office in Charleston (see cover for information); Email comments should be sent to: SGAM14@safmc.net