Appendix A. Considered but Rejected Alternatives and Sub-alternatives

Endorsement Transferability Between Gear Types (Action 3)

Alternative 7. Endorsements can be changed from one gear type to another.

Rationale for elimination: At their September 2010 meeting, the South Atlantic Fishery Management Council (South Atlantic Council) rejected this alternative because if fishermen were allowed to transfer endorsements between gear types (hook-and-line and longline), there would not be a need for a separate endorsement program for each gear types. Furthermore, the South Atlantic Council concluded that allowing endorsements to be transferred from hook-and-line to a more efficient gear (longline) would alleviate derby conditions and rate at which the quota is met. Furthermore, this scenario would not increase the chance of fishermen from Florida to target golden tilefish with hook-and-line gear in the fall, which is one of the objectives of Amendment 18B to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (Amendment 18B).

Type of Endorsement (Action 1)

Sub-alternative 2c. Individuals that meet the qualifying criteria for both hook and line and longline endorsements only receive a hook and line endorsement.

Sub-alternative 2d. Individuals that meet the qualifying criteria for both hook and line and longline endorsements only receive a longline endorsement.

Rationale for elimination: At their September 2011 meeting, the South Atlantic Council indicated they did not want to dictate which type of endorsement an individual should receive if he/she qualified for both. The South Atlantic Council concluded that if an individual qualified for both endorsements, they should receive both. It was regarded as too prescriptive and unnecessary to make someone choose which endorsement they should receive.

Establish Initial Eligibility Requirements for a Golden Tilefish Hook and Line Endorsement (Action 2)

Rationale for Elimination: With the increase in the golden tilefish annual catch limit (ACL) proposed through Regulatory Amendment 12 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (under review by the Secretary of Commerce) along with an allocation of 25% of the commercial ACL to the hook-and-line sector proposed in Amendment 18B, the South Atlantic Council indicated at their March 2012 meeting that there no longer was a need for a hook-and-line endorsement. The increase in the ACL, if approved by the Secretary of Commerce, would be well above recent landings (and takes into account recent overages). The hook-and-line sector has taken about 12% of the landings since 2004. The South Atlantic Council’s preferred allocation between the sectors is 75% and 25% for longline and hook-and-line, respectively. With the upcoming increase in the ACL (if approved by the Secretary of Commerce) and the proposed increase in the hook-and-line allocation in Amendment 18B, establishment of hook-and-line endorsements may limit the use of the resource unnecessarily during a time when regulations on other snapper grouper species are very restrictive. This is contradictory to the South Atlantic Council’s stated purpose and need
for this amendment. The South Atlantic Council chose instead to focus on establishment of longline endorsements only, and defer consideration of hook and line endorsements until a future time.

**Eligibility for Hook and Line Endorsement (Action 2)**

**Sub-alternative 2b.** To receive a golden tilefish hook and line endorsement, the individual must have a harvest level of 500 pounds gw (with hook and line gear) when the individual’s best three of five years from 2001-2005 are aggregated. (Sub-alternative devised by the GT LAP WG)

**Sub-alternative 2c.** To receive a golden tilefish hook and line endorsement, the individual must have a harvest level of 500 pounds gw (with hook and line gear) when the individual’s landings from 2001-2005 are averaged.

**Sub-alternative 2d.** To receive a golden tilefish hook and line endorsement, the individual must have a harvest level of 500 pounds gw (with hook and line gear) when the individual’s landings from 1999-2008 are averaged.

**Sub-alternative 2e.** To receive a golden tilefish hook and line endorsement, the individual must have a harvest level of 1,000 pounds gw (with hook and line gear) when the individual’s landings from 1999-2008 are averaged.

**Sub-alternative 2f.** To receive a golden tilefish hook and line endorsement, the individual must have a harvest level of 1,000 pounds gw (with hook and line gear) when the best 3 of 5 yrs 2001-05 are aggregated and at least 1 lb was landed in 2008.

**Sub-alternative 2h.** To receive a golden tilefish hook and line endorsement, the individual must have a harvest level of 500 pounds gw (with hook and line gear) when the best 3 of 5 yrs 2001-05 are aggregated and at least 1 lb was landed in 2008.

**Sub-alternative 2j.** To receive a golden tilefish hook and line endorsement, the individual must have a harvest level of 500 pounds gw (with hook and line gear) when the best 3 of 5 yrs 2001-05 are averaged and at least 1 lb was landed in 2008.

**Sub-alternative 2k.** To receive a golden tilefish hook and line endorsement, the individual must have a harvest level of 500 pounds gw (with hook and line gear) when the best 3 of 5 yrs 2001-05 are averaged and at least 1 lb was landed in 2007 or 2008.

**Rationale for elimination:** At their September 2011 meeting, the South Atlantic Council indicated there were too many alternatives for this action and the specified eligibility periods were no longer appropriate since they did not capture enough current participation in the golden tilefish component of the snapper grouper fishery.
Eligibility for Longline Endorsement (Action 3)

Sub-alternative 2f. To receive a golden tilefish longline endorsement, the individual must have an average of 10,000 pounds gT golden tilefish caught (with longline gear) between 2007 and 2010.

Sub-alternative 2g. To receive a golden tilefish longline endorsement, the individual must have an average of 20,000 pounds gT golden tilefish caught (with longline gear) between 2007 and 2010.

Sub-alternative 2h. To receive a golden tilefish longline endorsement, the individual must have an average of 30,000 pounds gT golden tilefish caught (with longline gear) between 2007 and 2010.

Rationale for elimination: The sub-alternatives above were added for analysis at the September 2011 South Atlantic Council meeting. However, a new sub-alternative was proposed at the December 2011 meeting and selected as the preferred. The sub-alternative (Sub-alternative 2f) captured what the above sub-alternatives were intended to address. Hence, the South Atlantic Council voted to move these to the considered but rejected Appendix A.

Endorsement Transferability (Action 6)

Under Alternative 2 (longline golden tilefish endorsements can be transferred between any two individuals or entities that hold valid unlimited Federal commercial snapper grouper permits and fish with longline gear) the sub-alternatives below were removed from consideration:

- **Sub-alternative 2c.** Transferability not allowed during the first 3 years of the program.
- **Sub-alternative 2d.** Transferability not allowed during the first 5 years of the program.

Under Alternative 3 (look and line golden tilefish endorsements can be transferred between any two individuals or entities that hold valid unlimited Federal commercial snapper grouper permits and fish with hook and line gear) the sub-alternatives below were removed from consideration:

- **Sub-alternative 3c.** Transferability not allowed during the first 3 years of the program.
- **Sub-alternative 3d.** Transferability not allowed during the first 5 years of the program.

Under Alternative 4 (hook and line and longline golden tilefish endorsements can be transferred between any two individuals or entities that hold valid unlimited Federal commercial snapper grouper permits, regardless of the gear endorsement category) the sub-alternatives below were removed from consideration:

- **Sub-alternative 4c.** Transferability not allowed during the first 3 years of the program.
- **Sub-alternative 4d.** Transferability not allowed during the first 5 years of the program.
**Rationale for elimination:** The South Atlantic Council removed the above sub-alternatives at their December 2011 meeting because they concluded 3 or 5 years was too long a time period to wait before endorsements could be transferred. Thus, the above sub-alternatives were deemed unnecessary.

**Alternative 3.** A valid or expired hook and line golden tilefish endorsement can be transferred between any two individuals or entities that hold, or simultaneously obtain, a valid or renewable unlimited Federal commercial snapper grouper permit.

- **Sub-alternative 3a.** Transferability allowed upon program implementation.
- **Sub-alternative 3b.** Transferability not allowed during the first 2 years of the program.

**Alternative 4.** A valid or expired hook and line and longline golden tilefish endorsement can be transferred between any two individuals or entities that hold, or simultaneously obtain, a valid or renewable unlimited Federal commercial snapper grouper permit, regardless of the gear endorsement category.

- **Sub-alternative 4a.** Transferability allowed upon program implementation.
- **Sub-alternative 4b.** Transferability not allowed during the first 2 years of the program.

**Rationale for Elimination:** At their March 2012 meeting, the South Atlantic Council determined that there no longer was a need for a hook-and-line endorsement because of the proposed increase in the ACL through Regulatory Amendment 12 as well as the proposed allocation of the commercial ACL for the hook and line sector in Amendment 18B. Hence, the alternatives and sub-alternatives above, and formerly included in Action 6, were determined by the South Atlantic Council to be unnecessary.

**Trip Limits for Fishermen Who Receive Hook and Line Endorsement (Action 10)**

**Alternative 3.** Establish trip limits of 400 pounds for fishermen who receive hook and line endorsement in the golden tilefish fishery.

**Alternative 4.** Establish trip limits of 500 pounds for fishermen who receive hook and line endorsement in the golden tilefish fishery.

**Rationale for elimination:** These alternatives were mistakenly taken out of the document prior to public hearings. However, the South Atlantic Council subsequently chose not to consider an endorsement for the hook-and-line sector at their March 2012 meeting. Therefore, all alternatives pertaining to a hook-and-line endorsement were determined by the South Atlantic Council to be unnecessary.

**Action 10.** Establish Trip Limits for Fishermen Who Receive a Golden Tilefish Hook and Line Endorsement

**Rationale for Elimination:** At their March 2012 meeting, the South Atlantic Council determined that there no longer was a need for a hook-and-line endorsement because of the proposed increase in the ACL through Regulatory Amendment 12 as well as the proposed allocation of the commercial ACL for the hook-and-line sector in Amendment 18B. Therefore, all alternatives pertaining to a hook-and-line endorsement were determined by the South Atlantic Council to be unnecessary.
Annual Catch Limit and Accountability Measures (Actions 11 and 12)

Action 11. Revise the Annual Catch Limit (ACL) and Optimum Yield (OY) for Golden Tilefish

Action 12. Revise Accountability Measures (AMs) for Golden Tilefish

Rationale for Elimination: These actions were removed from consideration in Amendment 18B and moved to Regulatory Amendment 12 (under review by the Secretary of Commerce).
Appendix B. Glossary

Allowable Biological Catch (ABC): Maximum amount of fish stock than can be harvested without adversely affecting recruitment of other components of the stock. The ABC level is typically higher than the total allowable catch, leaving a buffer between the two.

ALS: Accumulative Landings System. NMFS database which contains commercial landings reported by dealers.

Biomass: Amount or mass of some organism, such as fish.

$B_{MSY}$: Biomass of population achieved in long-term by fishing at $F_{MSY}$.

Bycatch: Fish harvested in a fishery, but not sold or kept for personal use. Bycatch includes economic discards and regulatory discards, but not fish released alive under a recreational catch and release fishery management program.

Caribbean Fishery Management Council (CFMC): One of eight regional councils mandated in the Magnuson-Stevens Fishery Conservation and Management Act to develop management plans for fisheries in federal waters. The CFMC develops fishery management plans for fisheries off the coast of the U.S. Virgin Islands and the Commonwealth of Puerto Rico.

Catch Per Unit Effort (CPUE): The amount of fish captured with an amount of effort. CPUE can be expressed as weight of fish captured per fishing trip, per hour spent at sea, or through other standardized measures.

Charter Boat: A fishing boat available for hire by recreational anglers, normally by a group of anglers for a short time period.

Cohort: Fish born in a given year. (See year class.)

Control Date: Date established for defining the pool of potential participants in a given management program. Control dates can establish a range of years during which a potential participant must have been active in a fishery to qualify for a quota share.

Constant Catch Rebuilding Strategy: A rebuilding strategy where the allowable biological catch of an overfished species is held constant until stock biomass reaches $B_{MSY}$ at the end of the rebuilding period.

Constant F Rebuilding Strategy: A rebuilding strategy where the fishing mortality of an overfished species is held constant until stock biomass reached $B_{MSY}$ at the end of the rebuilding period.

Directed Fishery: Fishing directed at a certain species or species group.
**Discards:** Fish captured, but released at sea.

**Discard Mortality Rate:** The percent of total fish discarded that do not survive being captured and released at sea.

**Derby:** Fishery in which the TAC is fixed and participants in the fishery do not have individual quotas. The fishery is closed once the TAC is reached, and participants attempt to maximize their harvests as quickly as possible. Derby fisheries can result in capital stuffing and a race for fish.

**Effort:** The amount of time and fishing power (i.e., gear size, boat size, horsepower) used to harvest fish.

**Exclusive Economic Zone (EEZ):** Zone extending from the shoreline out to 200 nautical miles in which the country owning the shoreline has the exclusive right to conduct certain activities such as fishing. In the United States, the EEZ is split into state waters (typically from the shoreline out to 3 nautical miles) and federal waters (typically from 3 to 200 nautical miles).

**Exploitation Rate:** Amount of fish harvested from a stock relative to the size of the stock, often expressed as a percentage.

**F:** Fishing mortality.

**Fecundity:** A measurement of the egg-producing ability of fish at certain sizes and ages.

**Fishery Dependent Data:** Fishery data collected and reported by fishermen and dealers.

**Fishery Independent Data:** Fishery data collected and reported by scientists who catch the fish themselves.

**Fishery Management Plan:** Management plan for fisheries operating in the federal produced by regional fishery management councils and submitted to the Secretary of Commerce for approval.

**Fishing Effort:** Usually refers to the amount of fishing. May refer to the number of fishing vessels, amount of fishing gear (nets, traps, hooks), or total amount of time vessels and gear are actively engaged in fishing.

**Fishing Mortality:** A measurement of the rate at which fish are removed from a population by fishing. Fishing mortality can be reported as either annual or instantaneous. Annual mortality is the percentage of fish dying in one year. Instantaneous is that percentage of fish dying at any one time.
**Fishing Power:** Measure of the relative ability of a fishing vessel, its gear, and its crew to catch fishes, in reference to some standard vessel, given both vessels are under identical conditions.

**F\text{30\%SPR}:** Fishing mortality that will produce a static SPR = 30%.

**F\text{45\%SPR}:** Fishing mortality that will produce a static SPR = 45%.

**F\text{OY}:** Fishing mortality that will produce OY under equilibrium conditions and a corresponding biomass of \(B\text{OY}\). Usually expressed as the yield at 85% of \(F\text{MSY}\), yield at 75% of \(F\text{MSY}\), or yield at 65% of \(F\text{MSY}\).

**F\text{MSY}:** Fishing mortality that if applied constantly, would achieve MSY under equilibrium conditions and a corresponding biomass of \(B\text{MSY}\).

**Fork Length (FL):** The length of a fish as measured from the tip of its snout to the fork in its tail.

**Gear restrictions:** Limits placed on the type, amount, number, or techniques allowed for a given type of fishing gear.

**Growth Overfishing:** When fishing pressure on small fish prevents the fishery from producing the maximum poundage. Condition in which the total weight of the harvest from a fishery is improved when fishing effort is reduced, due to an increase in the average weight of fishes.

**Gulf of Mexico Fishery Management Council (GFMC):** One of eight regional councils mandated in the Magnuson-Stevens Fishery Conservation and Management Act to develop management plans for fisheries in federal waters. The GFMC develops fishery management plans for fisheries off the coast of Texas, Louisiana, Mississippi, Alabama, and the west coast of Florida.

**Head Boat:** A fishing boat that charges individual fees per recreational angler onboard.

**Highgrading:** Form of selective sorting of fishes in which higher value, more marketable fishes are retained, and less marketable fishes, which could legally be retained are discarded.

**Individual Fishing Quota (IFQ):** Fishery management tool that allocates a certain portion of the TAC to individual vessels, fishermen, or other eligible recipients.

**Longline:** Fishing method using a horizontal mainline to which weights and baited hooks are attached at regular intervals. Gear is either fished on the bottom or in the water column.
**Magnuson-Stevens Fishery Conservation and Management Act**: Federal legislation responsible for establishing the fishery management councils and the mandatory and discretionary guidelines for federal fishery management plans.

**Marine Recreational Fisheries Statistics Survey (MRFSS)**: Survey operated by NMFS in cooperation with states that collects marine recreational data.

**Maximum Fishing Mortality Threshold (MFMT)**: The rate of fishing mortality above which a stock’s capacity to produce MSY would be jeopardized.

**Maximum Sustainable Yield (MSY)**: The largest long-term average catch that can be taken continuously (sustained) from a stock or stock complex under average environmental conditions.

**Minimum Stock Size Threshold (MSST)**: The biomass level below which a stock would be considered overfished.

**Modified F Rebuilding Strategy**: A rebuilding strategy where fishing mortality is changed as stock biomass increases during the rebuilding period.

**Multispecies fishery**: Fishery in which more than one species is caught at the same time and location with a particular gear type.

**National Marine Fisheries Service (NMFS)**: Federal agency within NOAA responsible for overseeing fisheries science and regulation.

**National Oceanic and Atmospheric Administration**: Agency within the Department of Commerce responsible for ocean and coastal management.

**Natural Mortality (M)**: A measurement of the rate at which fish are removed from a population by natural causes. Natural mortality can be reported as either annual or instantaneous. Annual mortality is the percentage of fish dying in one year. Instantaneous is that percentage of fish dying at any one time.

**Optimum Yield (OY)**: The amount of catch that will provide the greatest overall benefit to the nation, particularly with respect to food production and recreational opportunities and taking into account the protection of marine ecosystems.

**Overfished**: A stock or stock complex is considered overfished when stock biomass falls below the minimum stock size threshold (MSST) (e.g., current biomass < MSST = overfished).

**Overfishing**: Overfishing occurs when a stock or stock complex is subjected to a rate of fishing mortality that exceeds the maximum fishing mortality threshold (e.g., current fishing mortality rate > MFMT = overfishing).
**Quota:** Percent or annual amount of fish that can be harvested.

**Recruitment (R):** Number or percentage of fish that survives from hatching to a specific size or age.

**Recruitment Overfishing:** The rate of fishing above which the recruitment to the exploitable stock becomes significantly reduced. This is characterized by a greatly reduced spawning stock, a decreasing proportion of older fish in the catch, and generally very low recruitment year after year.

**Scientific and Statistical Committee (SSC):** Fishery management advisory body composed of federal, state, and academic scientists, which provides scientific advise to a fishery management council.

**Selectivity:** The ability of a type of gear to catch a certain size or species of fish.

**South Atlantic Fisheries Management Council (SAFMC):** One of eight regional councils mandated in the Magnuson-Stevens Fishery Conservation and Management Act to develop management plans for fisheries in federal waters. The SAFMC develops fishery management plans for fisheries off North Carolina, South Carolina, Georgia, and the east coast of Florida.

**Spawning Potential Ratio (Transitional SPR):** Formerly used in overfished definition. The number of eggs that could be produced by an average recruit in a fished stock divided by the number of eggs that could be produced by an average recruit in an unfished stock. SPR can also be expressed as the spawning stock biomass per recruit (SSBR) of a fished stock divided by the SSBR of the stock before it was fished.

**% Spawning Per Recruit (Static SPR):** Formerly used in overfishing determination. The maximum spawning per recruit produced in a fished stock divided by the maximum spawning per recruit, which occurs under the conditions of no fishing. Commonly abbreviated as %SPR.

**Spawning Stock Biomass (SSB):** The total weight of those fish in a stock which are old enough to spawn.

**Spawning Stock Biomass Per Recruit (SSBR):** The spawning stock biomass divided by the number of recruits to the stock or how much spawning biomass an average recruit would be expected to produce.

**Total Allowable Catch (TAC):** The total amount of fish to be taken annually from a stock or stock complex. This may be a portion of the Allowable Biological Catch (ABC) that takes into consideration factors such as bycatch.

**Total Length (TL):** The length of a fish as measured from the tip of the snout to the tip of the tail.
Appendix C. Essential Fish Habitat and Move to Ecosystem Based Management

South Atlantic Fishery Management Council Habitat Conservation, Ecosystem Coordination and Collaboration

The Council, using the Essential Fish Habitat Plan as the cornerstone, adopted a strategy to facilitate the move to an ecosystem-based approach to fisheries management in the region. This approach required a greater understanding of the South Atlantic ecosystem and the complex relationships among humans, marine life and the environment including essential fish habitat. To accomplish this, a process was undertaken to facilitate the evolution of the Habitat Plan into a Fishery Ecosystem Plan (FEP), thereby providing more comprehensive understanding of the biological, social and economic impacts of management necessary to initiate the transition from single species management to ecosystem-based management in the region.

Moving to Ecosystem-Based Management

The Council adopted broad goals for Ecosystem-Based Management to include maintaining or improving ecosystem structure and function; maintain or improving economic, social and cultural benefits from resources; and maintaining or improving biological, economic and cultural diversity. Development of a regional FEP (SAFMC 2009a) provided an opportunity to expand scope of the original Council Habitat Plan and compile and review available habitat, biological, social, and economic fishery and resource information for fisheries in the South Atlantic ecosystem. The South Atlantic Council views habitat conservation at the core of the move to EBM in the region. Therefore, development of the FEP was a natural next step in the evolution and expands and significantly updates the SAFMC Habitat Plan (SAFMC 1998a) incorporating comprehensive details of all managed species (SAFMC, South Atlantic States, ASMFC, and NOAA Fisheries Highly Migratory Species and Protected Species) including their biology, food web dynamics, and economic and social characteristics of the fisheries and habitats essential to their survival. The FEP therefore serves as a source document presents more complete and detailed information describing the South Atlantic ecosystem and the impact of the fisheries on the environment. This FEP updates information on designated Essential Fish Habitat (EFH) and EFH-Habitat Areas of Particular Concern; expands descriptions of biology and status of managed species; presents information that will support ecosystem considerations for managed species; and describes the social and economic characteristics of the fisheries in the region. In addition, it expands the discussion and description of existing research programs and needs to identify biological, social, and economic research needed to fully address ecosystem-based management in the region. In is anticipated that the FEP will provide a greater degree of guidance by fishery, habitat, or major ecosystem consideration of bycatch reduction, prey-predator interactions, maintaining biodiversity, and spatial management needs. This FEP serves as a living source document of biological, economic, and social information for all Fishery Management Plans (FMP). Future Environmental Assessments and Environmental Impact Statements associated with subsequent amendments to Council FMPs will draw from or cite by reference the FEP.

The Fishery Ecosystem Plan for the South Atlantic Region encompasses the following volume structure:
FEP Volume I - Introduction and Overview of FEP for the South Atlantic Region
FEP Volume II - South Atlantic Habitats and Species
FEP Volume III - South Atlantic Human and Institutional Environment
FEP Volume IV - Threats to South Atlantic Ecosystem and Recommendations
Comprehensive Ecosystem-Based Amendment (CE-BA) 1 (SAFMC 2009b) is supported by this FEP and updates EFH and EFH-HAPC information and addresses the Final EFH Rule (e.g., GIS presented for all EFH and EFH-HAPCs). Management actions implemented in the CE-BA establish deepwater Coral HAPCs to protect what is thought to be the largest continuous distribution (>23,000 square miles) of pristine, deepwater coral ecosystems in the world.

**Ecosystem Approach to Deepwater Ecosystem Management**

The South Atlantic Council manages coral, coral reefs and live/hard bottom habitat, including deepwater corals, through the Fishery Management Plan for Coral, Coral Reefs and Live/Hard Bottom Habitat of the South Atlantic Region (Coral FMP). Mechanisms exist in the FMP, as amended, to further protect deepwater coral and live/hard bottom habitats. The SAFMC’s Habitat and Environmental Protection Advisory Panel and Coral Advisory Panel have supported proactive efforts to identify and protect deepwater coral ecosystems in the South Atlantic region. Management actions in Comprehensive Ecosystem-Based Amendment (CE-BA 1) (SAFMC 2009b) established deepwater coral HAPCs (C-HAPCs) to protect what is thought to be the largest continuous distribution (>23,000 square miles) of pristine deepwater coral ecosystems in the world. In addition, CE-BA 1 established areas within the CHAPC which provide for traditional fishing in limited areas which do not impact deepwater coral habitat. CE-BA 1, supported by the FEP, also addresses non-regulatory updates for existing EFH and EFH-HAPC information and addresses the spatial requirements of the Final EFH Rule (i.e., GIS presented for all EFH and EFH-HAPCs).

**Building from a Habitat to an Ecosystem Network to Support the Evolution**

Starting with our Habitat and Environmental Protection Advisory Panel, the Council expanded and fostered a comprehensive Habitat network in our region to develop the Habitat Plan of the South Atlantic Region completed in 1998 to support the EFH rule. Building on the core regional collaborations, the Council facilitated an expansion to a Habitat and Ecosystem network to support the development of the FEP and CE-BA as well as coordinate with partners on other regional efforts.

These efforts include participation as a member and on the Board of the Southeast Coastal Regional Ocean Observing Association (SECOORA) to guide and direct priority needs for observation and modeling to support fisheries oceanography and integration into stock assessment process through SEDAR. Cooperation through SECOORA is envisioned to facilitate the following:

- Refining current or water column designations of EFH and EFH-HAPCs (e.g., Gulf Stream and Florida Current)
- Providing oceanographic models linking benthic, pelagic habitats and food webs
- Providing oceanographic input parameters for ecosystem models
- Integration of OOS information into Fish Stock Assessment process in the SA region
- Facilitating OOS system collection of fish and fishery data and other research necessary to support the Council’s use of area-based management tools in the SA Region including but not limited to EFH, EFH-HAPCs, Marine Protected Areas, Deepwater Coral Habitat Areas of Particular Concern, Special Management Zones and Allowable Gear Areas.
- Integration of OOS program capabilities and research Needs into the South Atlantic Fishery Ecosystem Plan
Collaboration with SECOORA to integrate OOS products on the Council’s Habitat and Ecosystem Internet Mapping System to facilitate model and tool development

Expanding IMS and Arc Services will provide permissioned researchers access to data or products including those collected/developed by SA OOS partners.

In addition, the Council serves on the National Habitat Board and, as a member of the Southeast Aquatic Resource Partnership (SARP), has highlighted the collaboration by including the Southeast Aquatic Habitat Plan and associated watershed conservation restoration targets into the FEP. Many of the habitat, water quality, and water quantity conservation needs identified in the threats and recommendations Volume of the FEP are directly addressed by on-the-ground projects supported by SARP. This cooperation results in funding fish habitat restoration and conservation intended to increase the viability of fish populations and fishing opportunity which also meets the needs to conserve and manage Essential Fish Habitat for Council managed species or habitat important to their prey.

Initially discussed as a South Atlantic Eco-regional Compact, the Council has also cooperated with South Atlantic States in the formation of a Governor’s South Atlantic Alliance (SAA). This will also provide regional guidance and resources that will address State and Council broader habitat and ecosystem conservation goals. The SAA was initiated in 2006. An Executive Planning Team (EPT), by the end of 2007, had created a framework for the Governors South Atlantic Alliance. The formal agreement between the four states (NC, SC, GA, and FL) was executed in May 2009. The Agreement specifies that the Alliance will prepare a “Governors South Atlantic Alliance Action Plan” which will be reviewed annually for progress and updated every five years for relevance of content. Alliance mission and purpose is to promote collaboration among the four states, and with the support and interaction of federal agencies, academe, regional organizations, non-governmental organizations, and the private sector, to sustain and enhance the region’s coastal and marine resources. The Alliance proposes to regionally implement science-based actions and policies that balance coastal and marine ecosystems capacities to support both human and natural systems. An Action Plan was approved by the Governors and an Implementation Plan is under development.

One of the more recent collaborations is the Council participation as Steering Committee member for the newly establish South Atlantic Landscape Conservation Cooperative (SALCC). Landscape Conservation Cooperatives (LCCs) are applied conservation science partnerships focused on a defined geographic area that informs on-the-ground strategic conservation efforts at landscape scales. LCC partners include DOI agencies, other federal agencies, states, tribes, non-governmental organizations, universities and others. The newly formed Department of Interior Southeast Climate Services Center (CSC) has the LCCs in the region as their primary clients. One of the initial charges of the CSCs is to downscale climate models for use at finer scales.

**Building Tools to support EBM in the South Atlantic Region**

The Council has developed a Habitat and Ecosystem Section of the website [http://www.safmc.net/ecosystem/Home/EcosystemHome/tabid/435/Default.aspx](http://www.safmc.net/ecosystem/Home/EcosystemHome/tabid/435/Default.aspx) and, in cooperation with the Florida Wildlife Research Institute (FWRI), developed a Habitat and Ecosystem Internet Map Server (IMS) [http://www.safmc.net/EcosystemManagement/EcosystemBoundaries/MappingandGISData/tabid/62/Default.aspx](http://www.safmc.net/EcosystemManagement/EcosystemBoundaries/MappingandGISData/tabid/62/Default.aspx). The IMS was developed to support Council and regional partners’ efforts in the transition to EBM. Other regional partners include NMFS Habitat Conservation, South Atlantic States,
local management authorities, other Federal partners, universities, conservation organizations, and recreational and commercial fishermen. As technology and spatial information needs evolve, the distribution and use of GIS demands greater capabilities. The Council has continued its collaboration with FWRI in the now evolution to Web Services initially for for Essential Fish Habitat (http://ocean.floridamine.org/SAFMC_EFH/) and Fishery Regulations (http://ocean.floridamine.org/SAFMC_Regulations/) and is refining permissioned services for Fishery Independent and Habitat Research and developing one for Ocean Energy activities in the region (e.g., wind, wave and current).

**Ecosystem Based Action, Future Challenges and Needs**

The Council has implemented ecosystem-based principles through several existing fishery management actions including establishment of deepwater Marine Protected Areas for the Snapper Grouper fishery, proactive harvest control rules on species (e.g., dolphin and wahoo) which are not overfished, implementing extensive gear area closures which in most cases eliminate the impact of fishing gear on Essential Fish Habitat and use of other spatial management including Special Management Zones. Pursuant to the development of the Comprehensive Ecosystem-Based Amendment, the Council is taking an ecosystem approach to protect deepwater ecosystems while providing for traditional fisheries for the Golden Crab and Royal Red shrimp in areas where they do not impact deepwater coral habitat. The stakeholder based process taps in on an extensive regional Habitat and Ecosystem network. Support tools facilitate Council deliberations and with the help of regional partners, are being refined to address long-term ecosystem management needs.

One of the greatest challenges to the long-term move to EBM in the region is funding high priority research, including but not limited to, comprehensive benthic mapping and ecosystem model and management tool development. In addition, collecting detailed information on fishing fleet dynamics including defining fishing operation areas by species, species complex and season, as well as catch relative to habitat is critical for assessment of fishery, community, and habitat impacts and for Council use of place based management measures. Additional resources need to be dedicated to expand regional coordination of modeling, mapping, characterization of species use of habitats, and full funding of regional fishery independent surveys (e.g., MARMAP, SEAMAP and SEFIS) which are linking directly to addressing high priority management needs. Development of ecosystem information systems to support Council management should build on existing tools (e.g., Regional Habitat and Ecosystem GIS and Arc Services) and provide resources to regional cooperating partners for expansion to address long-term Council needs.

The FEP and CE-BA 1 complement, but do not replace, existing FMPs. In addition, the FEP serves as source document to the CE-BAs. NOAA should support and build on regional coordination efforts of the Council as it transitions to a broader management approach. Resources need to be provided to collect information necessary to update and refine our FEP and support future fishery actions including but not limited to completing one of the highest priority needs to support EBM, the completion of mapping of near-shore, mid-shelf, shelf edge and deepwater habitats in the South Atlantic region. In developing future FEPs, the Council will draw on SAFEIs (Stock Assessment and Fishery Evaluation reports) which NMFS is required to provide the Council for all FMPs implemented under the Magnuson-Stevens Act. The FEP, serving as the source document for CE-BAs, could also meet NMFS SAFE requirements if information is provided to the Council to update necessary sections.
EFH and EFH-HAPC Designations Translated to Cooperative Habitat Policy

Development and Protection The Council actively comments on non-fishing projects or policies that may impact fish habitat. Appendix A of the Comprehensive Amendment Addressing Essential Fish Habitat in Fishery Management Plans of the South Atlantic Region (SAFMC 1998b) outlines the Council’s comment and policy development process and the establishment of a four-state Habitat Advisory Panel. Members of the Habitat Advisory Panel serve as the Council’s habitat contacts and professionals in the field. AP members bring projects to the Council’s attention, draft comment letters, and attend public meetings. With guidance from the Advisory Panel, the Council has developed and approved policies on:

1. Energy exploration, development, transportation and hydropower re-licensing;
2. Beach dredging and filling and large-scale coastal engineering;
3. Protection and enhancement of submerged aquatic vegetation;
4. Alterations to riverine, estuarine and nearshore flows; and
5. Marine aquaculture.
6. Marine Ecosystems and Non-Native and Invasive Species
7. Estuarine Ecosystems and Non-Native and Invasive Species

NOAA Fisheries, State and other Federal agencies apply EFH and EFH-HAPC designations and protection policies in the day-to-day permit review process. In addition to the workshop process described above the revision and updating of existing habitat policies and the development of new policies is being coordinated with core agency representatives on the Habitat and Coral Advisory Panels. Existing policies are included at the end of this Appendix.

South Atlantic Bight Ecopath Model

The Council worked cooperatively with the University of British Columbia and the Sea Around Us project to develop a straw-man and preliminary food web models (Ecopath with Ecosim) to characterize the ecological relationships of South Atlantic species, including those managed by the Council. This effort was envisioned to help the Council and cooperators in identifying available information and data gaps while providing insight into ecosystem function. More importantly, the model development process provides a vehicle to identify research necessary to better define populations, fisheries and their interrelationships. While individual efforts are still underway in the South Atlantic (e.g., Biscayne Bay) only with significant investment of new resources through other programs will a comprehensive regional model be further developed.

Essential Fish Habitat and Essential Fish Habitat Areas of Particular Concern

Following is a summary of the current South Atlantic Council’s EFH and EFH-HAPCs. Information supporting their designation is being updated (pursuant to the EFH Final Rule) in the Council’s Fishery Ecosystem Plan and Comprehensive Ecosystem Amendment:

Snapper Grouper FMP

Essential fish habitat for snapper-grouper species includes coral reefs, live/hard bottom, submerged aquatic vegetation, artificial reefs and medium to high profile outcroppings on and around the shelf break zone from shore to at least 600 feet (but to at least 2000 feet for wreckfish) where the annual water temperature range is sufficiently warm to maintain adult populations of members of this largely tropical complex. EFH includes the spawning area in the water column above the adult habitat and the additional pelagic environment, including Sargassum, required for
larval survival and growth up to and including settlement. In addition the Gulf Stream is an essential fish habitat because it provides a mechanism to disperse snapper grouper larvae.

For specific life stages of estuarine dependent and nearshore snapper-grouper species, essential fish habitat includes areas inshore of the 100-foot contour, such as attached macroalgae; submerged rooted vascular plants (seagrasses); estuarine emergent vegetated wetlands (saltmarshes, brackish marsh); tidal creeks; estuarine scrub/shrub (mangrove fringe); oyster reefs and shell banks; unconsolidated bottom (soft sediments); artificial reefs; and coral reefs and live/hard bottom.

Areas which meet the criteria for EFH-HAPCs for species in the snapper-grouper management unit include medium to high profile offshore hard bottoms where spawning normally occurs; localities of known or likely periodic spawning aggregations; nearshore hard bottom areas; The Point, The Ten Fathom Ledge, and Big Rock (North Carolina); The Charleston Bump (South Carolina); mangrove habitat; seagrass habitat; oyster/shell habitat; all coastal inlets; all state-designated nursery habitats of particular importance to snapper grouper (e.g., Primary and Secondary Nursery Areas designated in North Carolina); pelagic and benthic Sargassum; Hoyt Hills for wreckfish; the Oculina Bank Habitat Area of Particular Concern; all hermatypic coral habitats and reefs; manganese outcroppings on the Blake Plateau; and Council-designated Artificial Reef Special Management Zones (SMZs). In addition, the Council through CEBA 2 (SAFMC 2011) is proposing the deepwater snapper grouper MPAs and golden tilefish and blueline tilefish habitat as EFH-HAPCs under the Snapper Grouper FMP as follows:

EFH-HAPCs for golden tilefish to include irregular bottom comprised of troughs and terraces inter-mingled with sand, mud, or shell hash bottom. Mud-clay bottoms in depths of 150-300 meters are HAPC. Golden tilefish are generally found in 80-540 meters, but most commonly found in 200-meter depths.

EFH-HAPC for blueline tilefish to include irregular bottom habitats along the shelf edge in 45-65 meters depth; shelf break; or upper slope along the 100-fathom contour (150-225 meters); hardbottom habitats characterized as rock overhangs, rock outcrops, manganese-phosphorite rock slab formations, or rocky reefs in the South Atlantic Bight; and the Georgetown Hole (Charleston Lumps) off Georgetown, SC.

EFH-HAPCs for the snapper grouper complex to include the following deepwater Marine Protected Areas (MPAs) as designated in Snapper Grouper Amendment 14; Snowy Grouper Wreck MPA, Northern South Carolina MPA, Edisto MPA, Charleston Deep Artificial Reef MPA, Georgia MPA, North Florida MPA, St. Lucie Hump MPA and East Hump MPA.

**Shrimp FMP**

For penaeid shrimp, Essential Fish Habitat includes inshore estuarine nursery areas, offshore marine habitats used for spawning and growth to maturity, and all interconnecting water bodies as described in the Habitat Plan. Inshore nursery areas include tidal freshwater (palustrine), estuarine, and marine emergent wetlands (e.g., intertidal marshes); tidal palustrine forested areas; mangroves; tidal freshwater,
estuarine, and marine submerged aquatic vegetation (e.g., seagrass); and subtidal and intertidal non-vegetated flats. This applies from North Carolina through the Florida Keys.

For rock shrimp, essential fish habitat consists of offshore terrigenous and biogenic sand bottom habitats from 18 to 182 meters in depth with highest concentrations occurring between 34 and 55 meters. This applies for all areas from North Carolina through the Florida Keys. Essential fish habitat includes the shelf current systems near Cape Canaveral, Florida which provide major transport mechanisms affecting planktonic larval rock shrimp. These currents keep larvae on the Florida Shelf and may transport them inshore in spring. In addition the Gulf Stream is an essential fish habitat because it provides a mechanism to disperse rock shrimp larvae.

Essential fish habitat for royal red shrimp include the upper regions of the continental slope from 180 meters (590 feet) to about 730 meters (2,395 feet), with concentrations found at depths of between 250 meters (820 feet) and 475 meters (1,558 feet) over blue/black mud, sand, muddy sand, or white calcareous mud. In addition the Gulf Stream is an essential fish habitat because it provides a mechanism to disperse royal red shrimp larvae.

Areas which meet the criteria for EFH-HAPCs for penaeid shrimp include all coastal inlets, all state-designated nursery habitats of particular importance to shrimp (for example, in North Carolina this would include all Primary Nursery Areas and all Secondary Nursery Areas), and state-identified overwintering areas.

Coastal Migratory Pelagics FMP
Essential fish habitat for coastal migratory pelagic species includes sandy shoals of capes and offshore bars, high profile rocky bottom and barrier island ocean-side waters, from the surf to the shelf break zone, but from the Gulf stream shoreward, including Sargassum. In addition, all coastal inlets, all state-designated nursery habitats of particular importance to coastal migratory pelagics (for example, in North Carolina this would include all Primary Nursery Areas and all Secondary Nursery Areas).

For Cobia essential fish habitat also includes high salinity bays, estuaries, and seagrass habitat. In addition, the Gulf Stream is an essential fish habitat because it provides a mechanism to disperse coastal migratory pelagic larvae.
For king and Spanish mackerel and cobia essential fish habitat occurs in the South Atlantic and Mid-Atlantic Bights.

Areas which meet the criteria for EFH-HAPCs include sandy shoals of Capes Lookout, Cape Fear, and Cape Hatteras from shore to the ends of the respective shoals, but shoreward of the Gulf stream; The Point, The Ten-Fathom Ledge, and Big Rock (North Carolina); The Charleston Bump and Hurl Rocks (South Carolina); The Point off Jupiter Inlet (Florida); Phragmatopoma (worm reefs) reefs off the central east coast of Florida; nearshore hard bottom south of Cape Canaveral; The Hump off Islamorada, Florida; The Marathon Hump off Marathon, Florida; The “Wall” off of the Florida Keys; Pelagic Sargassum; and Atlantic coast estuaries with high numbers of Spanish mackerel and cobia based on abundance data from the ELMR Program. Estuaries meeting this criteria for Spanish mackerel include Bogue Sound and New River, North Carolina; Bogue Sound,
North Carolina (Adults May-September salinity >30 ppt); and New River, North Carolina (Adults May-October salinity >30 ppt). For Cobia they include Broad River, South Carolina; and Broad River, South Carolina (Adults & juveniles May-July salinity >25ppt).

Golden Crab FMP
Essential fish habitat for golden crab includes the U.S. Continental Shelf from Chesapeake Bay south through the Florida Straits (and into the Gulf of Mexico). In addition, the Gulf Stream is an essential fish habitat because it provides a mechanism to disperse golden crab larvae. The detailed description of seven essential fish habitat types (a flat foraminiferan ooze habitat; distinct mounds, primarily of dead coral; ripple habitat; dunes; black pebble habitat; low outcrop; and soft-bioturbated habitat) for golden crab is provided in Wenner et al. (1987). There is insufficient knowledge of the biology of golden crabs to identify spawning and nursery areas and to identify HAPCs at this time. As information becomes available, the Council will evaluate such data and identify HAPCs as appropriate through the framework.

Spiny Lobster FMP
Essential fish habitat for spiny lobster includes nearshore shelf/oceanic waters; shallow subtidal bottom; seagrass habitat; unconsolidated bottom (soft sediments); coral and live/hard bottom habitat; sponges; algal communities (*Laurencia*); and mangrove habitat (prop roots). In addition the Gulf Stream is an essential fish habitat because it provides a mechanism to disperse spiny lobster larvae.

Areas which meet the criteria for EFH-HAPCs for spiny lobster include Florida Bay, Biscayne Bay, Card Sound, and coral/hard bottom habitat from Jupiter Inlet, Florida through the Dry Tortugas, Florida.

Coral, Coral Reefs, and Live/Hard Bottom Habitats FMP
Essential fish habitat for corals (stony corals, octocorals, and black corals) must incorporate habitat for over 200 species. EFH for corals include the following:

A. Essential fish habitat for hermatypic stony corals includes rough, hard, exposed, stable substrate from Palm Beach County south through the Florida reef tract in subtidal to 30 m depth, subtropical (15°-35° C), oligotrophic waters with high (30-35°/oo) salinity and turbidity levels sufficiently low enough to provide algal symbionts adequate sunlight penetration for photosynthesis. Ahermatypic stony corals are not light restricted and their essential fish habitat includes defined hard substrate in subtidal to outer shelf depths throughout the management area.

B. Essential fish habitat for *Antipatharia* (black corals) includes rough, hard, exposed, stable substrate, offshore in high (30-35°/oo) salinity waters in depths exceeding 18 meters (54 feet), not restricted by light penetration on the outer shelf throughout the management area.

C. Essential fish habitat for octocorals excepting the order Pennatulacea (sea pens and sea pansies) includes rough, hard, exposed, stable substrate in subtidal to outer shelf depths within a wide range of salinity and light penetration throughout the management area.
D. Essential fish habitat for Pennatulacea (sea pens and sea pansies) includes muddy, silty bottoms in subtidal to outer shelf depths within a wide range of salinity and light penetration.

Areas which meet the criteria for EFH-HAPCs for coral, coral reefs, and live/hard bottom include: The 10-Fathom Ledge, Big Rock, and The Point (North Carolina); Hurl Rocks and The Charleston Bump (South Carolina); Gray’s Reef National Marine Sanctuary (Georgia); The *Phragmatopoma* (worm reefs) reefs off the central east coast of Florida; Oculina Banks off the east coast of Florida from Ft. Pierce to Cape Canaveral; nearshore (0-4 meters; 0-12 feet) hard bottom off the east coast of Florida from Cape Canaveral to Broward County; offshore (5-30 meter; 15-90 feet) hard bottom off the east coast of Florida from Palm Beach County to Fowey Rocks; Biscayne Bay, Florida; Biscayne National Park, Florida; and the Florida Keys National Marine Sanctuary. In addition, the Council through CEBA 2 (SAFMC 2011) is proposing the Deepwater Coral HAPCs as EFH-HAPCs under the Coral FMP as follows:

Deepwater Coral HAPCs designated in Comprehensive Ecosystem-Based Amendment 1 as Snapper Grouper EFH-HAPCs: Cape Lookout Coral HAPC, Cape Fear Coral HAPC, Blake Ridge Diapir Coral HAPC, Stetson-Miami Terrace Coral HAPC, Pourtalés Terrace Coral HAPC.

**Dolphin and Wahoo FMP**

EFH for dolphin and wahoo is the Gulf Stream, Charleston Gyre, Florida Current, and pelagic *Sargassum*. This EFH definition for dolphin was approved by the Secretary of Commerce on June 3, 1999 as a part of the South Atlantic Council’s Comprehensive Habitat Amendment (SAFMC, 1998b) (dolphin was included within the Coastal Migratory Pelagics FMP).

Areas which meet the criteria for EFH-HAPCs for dolphin and wahoo in the Atlantic include The Point, The Ten-Fathom Ledge, and Big Rock (North Carolina); The Charleston Bump and The Georgetown Hole (South Carolina); The Point off Jupiter Inlet (Florida); The Hump off Islamorada, Florida; The Marathon Hump off Marathon, Florida; The “Wall” off of the Florida Keys; and Pelagic *Sargassum*. This EFH-HAPC definition for dolphin was approved by the Secretary of Commerce on June 3, 1999 as a part of the South Atlantic Council’s Comprehensive Habitat Amendment (dolphin was included within the Coastal Migratory Pelagics FMP).

**Pelagic Sargassum Habitat FMP**

The Council through CEBA 2 (SAFMC 2011) is proposing to designate the top 10 meters of the water column in the South Atlantic EEZ bounded by the Gulfstream, as EFH for pelagic Sargassum.

**Actions Implemented That Protect EFH and EFH-HAPCs**

**Snapper Grouper FMP**

- Prohibited the use of the following gears to protect habitat: bottom longlines in the EEZ inside of 50 fathoms or anywhere south of St. Lucie Inlet Florida, fish traps, bottom tending (roller-rig) trawls on live bottom habitat, and entanglement gear.
• Established the *Oculina* Experimental Closed Area where the harvest or possession of all species in the snapper grouper complex is prohibited

**Shrimp FMP**
• Prohibition of rock shrimp trawling in a designated area around the *Oculina* Bank,
• Mandatory use of bycatch reduction devices in the penaeid shrimp fishery,
• Mandatory Vessel Monitoring System (VMS) in the Rock Shrimp Fishery.
• A mechanism that provides for the concurrent closure of the EEZ to penaeid shrimping if environmental conditions in state waters are such that the overwintering spawning stock is severely depleted.

**Pelagic Sargassum Habitat FMP**
• Prohibited all harvest and possession of *Sargassum* from the South Atlantic EEZ south of the latitude line representing the North Carolina/South Carolina border (34° North Latitude).
• Prohibited all harvest of *Sargassum* from the South Atlantic EEZ within 100 miles of shore between the 34° North Latitude line and the Latitude line representing the North Carolina/Virginia border.
• Harvest of *Sargassum* from the South Atlantic EEZ is limited to the months of November through June.
• Established an annual Total Allowable Catch (TAC) of 5,000 pounds landed wet weight.
• Required that an official observer be present on each *Sargassum* harvesting trip. Require that nets used to harvest *Sargassum* be constructed of four inch stretch mesh or larger fitted to a frame no larger than 4 feet by 6 feet.

**Coastal Migratory Pelagics FMP**
• Prohibited of the use of drift gill nets in the coastal migratory pelagic fishery;

**Golden Crab FMP**
• In the northern zone golden crab traps can only be deployed in waters deeper than 900 feet; in the middle and southern zones traps can only be deployed in waters deeper than 700 feet.
  Northern zone - north of the 28°N. latitude to the North Carolina/Virginia border;
  Middle zone - 28°N. latitude to 25°N. latitude; and
  Southern zone - south of 25°N. latitude to the border between the South Atlantic and Gulf of Mexico Fishery Management Councils.

**Coral, Coral Reefs and Live/Hard Bottom FMP**
• Established an optimum yield of zero and prohibiting all harvest or possession of these resources which serve as essential fish habitat to many managed species.
• Designated of the *Oculina* Bank Habitat Area of Particular Concern
• Expanded the *Oculina* Bank Habitat Area of Particular Concern (HAPC) to an area bounded to the west by 80°W. longitude, to the north by 28°30' N. latitude, to the south by 27°30' N. latitude, and to the east by the 100 fathom (600 feet) depth contour.
• Established the following two Satellite *Oculina* HAPCs: (1) Satellite *Oculina*
HAPC #1 is bounded on the north by 28°30'N. latitude, on the south by 28°29'N. latitude, on
the east by 80°W. longitude, and on the west by 80°3'W. longitude, and (2) Satellite Oculina
HAPC #2 is bounded on the north by 28°17'N. latitude, on the south by 28°16'N. latitude, on
the east by 80°W. longitude, and on the west by 80°3'W. longitude.

- Prohibited the use of all bottom tending fishing gear and fishing vessels from anchoring or
  using grapples in the Oculina Bank HAPC.
- Established a framework procedure to modify or establish Coral HAPCs.
- Established the following six deepwater CHAPCs: Cape Lookout Lophelia Banks, Cape Fear
  Lophelia Banks, Stetson Reefs, Savannah and East Florida Lithoherms, and Miami Terrace (Stetson-
  Miami Terrace), Pourtales Terrace, and Blake Ridge Diapir Methane Seep.
- Within the deepwater CHAPCs, the possession of coral species and the use of all bottom damaging
  gear is prohibited including bottom longline, trawl (bottom and mid-water), dredge, pot or trap, or
  the use of an anchor, anchor and chain, or grapple and chain by all fishing vessels.

South Atlantic Council Policies for Protection and Restoration of Essential Fish Habitat.

SAFMC Habitat and Environmental Protection Policy
In recognizing that species are dependent on the quantity and quality of their essential habitats, it is the
policy of the SAFMC to protect, restore, and develop habitats upon which fisheries species depend; to
increase the extent of their distribution and abundance; and to improve their productive capacity for the
benefit of present and future generations. For purposes of this policy, “habitat” is defined as the
physical, chemical, and biological parameters that are necessary for continued productivity of the
species that is being managed. The objectives of the SAFMC policy will be accomplished through the
recommendation of no net loss or significant environmental degradation of existing habitat. A long-term
objective is to support and promote a net-gain of fisheries habitat through the restoration and
rehabilitation of the productive capacity of habitats that have been degraded, and the creation and
development of productive habitats where increased fishery production is probable. The SAFMC will
pursue these goals at state, Federal, and local levels. The Council shall assume an aggressive role in the
protection and enhancement of habitats important to fishery species, and shall actively enter Federal,
decision-making processes where proposed actions may otherwise compromise the productivity of
fishery resources of concern to the Council.

SAFMC EFH Policy Statements
In addition to implementing regulations to protect habitat from fishing related degradation, the Council
in cooperation with NOAA Fisheries, actively comments on non-fishing projects or policies that may
impact fish habitat. The Council adopted a habitat policy and procedure document that established a
four-state Habitat Advisory Panel and adopted a comment and policy development process. Members of
the Habitat Advisory Panel serve as the Council's habitat contacts and professionals in the field. With
guidance from the Advisory Panel, the Council has developed and approved the following habitat policy
statements which are available on the Habitat and Ecosystem section of the Council website:

Protection and Restoration of EFH from Marine Aquaculture
http://www.safmc.net/Portals/0/HabitatPolicies/SAFMCAquaPolicyFinalJune07.pdf

Protection and Enhancement of Marine Submerged Aquatic Vegetation
http://www.safmc.net/Portals/0/HabitatPolicies/SAFMCsAVPol.pdf

Protection and Restoration of EFH from Beach Dredging and Filling
http://www.safmc.net/Portals/0/HabitatPolicies/BeachPolicy.pdf
Protection and Restoration of EFH from Energy Exploration, Development, Transportation and Hydropower Re-Licensing
http://www.safmc.net/Portals/0/HabitatPolicies/SAFMCEnergyPolicyFinal05.pdf
Protection and Restoration of EFH from Alterations to Riverine, Estuarine and Nearshore Flows
http://www.safmc.net/Portals/0/HabitatPolicies/FlowsPolicy.pdf
Policies for the Protection of South Atlantic Estuarine Ecosystems from Non-Native and Invasive Species
http://www.safmc.net/LinkClick.aspx?fileticket=Qn%2baT%2blNjZM%3d&tabid=245
Policies for the Protection of South Atlantic Marine Ecosystems from No-Native and Invasive Species
http://www.safmc.net/LinkClick.aspx?fileticket=bNFKO%2flcvHQ%3d&tabid=245
Draft Golden Tilefish Limited Access Privilege (LAP) Program Exploratory Workgroup Report

October 31, 2008

Workgroup Members:

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Willy Gonzales
Joe Klosterman
Chad Lee
Robert Preston
Matt Ruby
Steve Shelley
Overview
Six of the seven commercial golden tilefish fishermen that comprise the Golden Tilefish Limited Access Privilege (LAP) Workgroup met on October 28th and 29th in North Charleston to discuss management of the commercial sector of the fishery. The fishermen developed two fairly detailed draft management programs they would like to see implemented under various circumstances. Under status quo management, the Workgroup members would like to see a gear specific golden tilefish endorsement program implemented that would exclude fishermen that do not have historical landings in the fishery. The longline gear sector representatives would like to include fishermen that have harvested at least 2000 pounds of golden tilefish between 2005 and 2007. The hook and line sector created two eligibility options for the purposes of analysis. The hook and line representative suggested including fishermen with at least 500 or 1000 pounds of golden tilefish landings on average between 2001 and 2005 using the three best of each individual’s five years. The endorsement program would also specify a change in the fishery start date from January 1st to August 1st. The change in the start date would allow South Carolina fishermen to start fishing at the same time as the Florida fishermen and for hook and line fishermen to participate in the fishery. In recent years, the commercial quota has been met before hook and line fishermen were able to focus effort on golden tilefish (usually in September) due to their participation in other fisheries.

The second program developed was an LAP program. According to some Workgroup members, the second program the Golden Tile LAP Workgroup developed was only considered to have potential for success if the golden tilefish commercial quota was about 480,000 pounds or greater. Others felt LAPs would be successful at a lower commercial quota. However, they did not feel that a LAP was a viable option at the currently projected commercial ACT levels specified in the Amendment 17 materials (between 196,455 and 276,265 pounds whole weight). The current commercial quota is 331,000 pounds whole weight. The LAP program developed included separate gear sector quotas for longline and hook and line. The program had different eligibility requirements for initial allocation for longline and hook and line quota. All other details developed for the LAP program were applicable to both gear users.

How this Report is Organized
This report begins with a brief description of the program type that was developed by the Workgroup and then provides detail about each program type. When available, analysis for each program is provided.

Program Types

Preferred Option 1: Species and gear specific endorsement on snapper grouper permit and change in start date to August 1st.

Eligibility Requirements
Hook and Line Endorsement

Sub-Option 1. Best 3 of 5 years from 2001-2005 averaging 1000 pounds or more.
Sub-Option 2. Best 3 of 5 years from 2001-2005 averaging 500 pounds or more.

Longline Endorsement (implies longline and bandit gear possibly onboard and being used to fish)

Sub-Option 1. Total greater than or equal to 2,000 pounds golden tilefish caught between January 2005 and November 2007.

Note: Use logbooks to check catch history and trip tickets to verify.

Option 2: LAP Program

Eligibility Requirements

Hook and Line

Sub-Option 1: Best 3 of 5 years from 2001-2005 averaging 1000 pounds or more.

Longline

Sub-Option 1. Total greater than or equal to 2,000 pounds golden tilefish caught between January 2005 and November 2007.

Initial Allocation Methodology

Hook and Line

Sub-Option 1: Methodology that averages 4000 lbs per person.

Longline

Sub-Option 1: Allocate based on the following equation where an individual’s allocation is equal to

\[
50\% \times \text{(average landings 2004-06)} + 50\% \times \text{(average landings 2007-08)}
\]

Sub-Option 2: Average of an individual’s landings from the best 3 of 5 years 2004-2008

Commercial Quota Split

Preferred Sub-Option 1: 10% H & L, 90% LL hard allocation
Transferability on quota and pounds

Preferred Sub-Option 1: Transferability for both quota and pounds whereby there is one type of quota and one type of pounds for both longline and hook and line.

Ownership cap on quota

Sub-Option 1: No cap
Sub-Option 2: 25% cap
Sub-Option 3: 49% cap

Ownership cap on pounds

Preferred Sub-Option 1: No cap

Rollover allowances

Preferred Sub-Option 1: Underage allowance
Preferred Sub-Option 2: Overage allowance

Recreational/Commercial Allocation

Under an LAP or endorsement type program, the Workgroup would like a hard and unchanging allocation between recreational and commercial sectors.

Enforcement and Monitoring
Sub-Option 1. Hail in for dockside monitoring (cell phone until 8 miles, weather, arrive early morning)

The LAP Workgroup opposes VMS due to the added cost ~$1200/yr and maintenance and repair time (10+ days sometimes). The Workgroup felt that the fines are a major deterrent to illegal activity such as harvesting over quota. The group of also felt that the number of participants was small enough so that they could police another. The group felt that the paper trail could be a sufficient monitoring mechanism. The Workgroup is open to monitoring options that do not cost money.

Cost Recovery
An assessment needs to be done to gauge incremental increases in administrative costs so that cost recovery needs can be estimated.

**Referendum**

The Workgroup would like a referendum before final action is taken on a golden tilefish LAP amendment by the Council.

**Eligibility requirements**

Sub-Option 1: To qualify to participate in the referendum, the permit holder must be currently active in the fishery harvesting 500 pounds or more per year between 2005 and 2008.

**Voting Rules**

1 vote per pound harvested between
- Sub-Option 1: 2004 and 2008
- Sub-Option 2: 2005 and 2008

**The LAP Workgroup does not endorse Option 2 (LAP Program) at this time due to low quotas. They prefer Option 1 (Endorsement and August 1st start date). A low stock assessment does not leave an individual in an economically viable position. Some Workgroup members felt that, in the future, if the commercial quota is equal to or greater than 480,000 pounds, the LAP Workgroup is in favor of LAPs. Others were in favor of an LAP if the commercial quota were equal to current levels or a little higher.**

**October 2008 Recommendations**

Recommendation 1. The LAP WG recommends that the Council choose the average of 1986-2007 to use as the commercial golden tilefish allocation in Amendment 17. This recommendation is unanimous.

Recommendation 2. The LAP WG recommends an emergency rule be implemented in the golden tilefish fishery that develops a gear endorsement as specified above that would include a change in the opening date from January 1st to August 1st.

Recommendation 3. The LAP Workgroup recommends a control date on golden tilefish of December 31st, 2007.
Recommendation 4. The LAP Workgroup requests that the Council request the Science Center to make 2008 logbook data available to NMFS analysts and Council staff for LAP analytical purposes.

Recommendation 5. The LAP Workgroup requests that the Workgroup be allowed to meet to discuss any LAP program details the Council devises after the Workgroup hands in their recommendations.

Recommendation 6. The LAP Workgroup recommends that Amendment 17 incorporate an alternative with a golden tilefish LL endorsement and a golden tilefish H&L endorsement with a start date of August 1st.

Note: If an endorsement system is not pursued in Amendment 17, then the LAP Workgroup would like to consider other options to secure economic viability for current participants.
Appendix E. Bycatch Practicability

Population Effects for the Bycatch Species

Background

Commercial fishing for golden tilefish is prosecuted primarily with longline gear. Approximately 90% of the commercial golden tilefish catch is taken with longline gear with the remain 10% is from hook and line gear (Table 1). During 2006-10, landings of golden tilefish were dominated by the commercial sector (Table 2).

Table 1. Golden tilefish commercial catch by gear based on data from 2005-2010.

<table>
<thead>
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<th></th>
<th>2005-10</th>
<th>Gutted Weight</th>
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<th>Other</th>
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<td>0.04%</td>
<td>10.20%</td>
<td></td>
</tr>
</tbody>
</table>


Table 2. Average landings (lbs gutted weight) during 2006-2010 for commercial, headboat (HB), and MRFSS.

<table>
<thead>
<tr>
<th>Species</th>
<th>commercial</th>
<th>HB</th>
<th>MRFSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Golden tilefish</td>
<td>348,961</td>
<td>0</td>
<td>9,529</td>
</tr>
</tbody>
</table>


Regulations, which are currently being used to manage the golden tilefish, are annual catch limits (ACL) and bag limits. The commercial ACL is 282,819 lbs gutted weight and the recreational ACL is 1,578 fish. SEDAR 25 (2011) indicates golden tilefish is no longer experiencing overfishing and is not overfished. Furthermore, SEDAR 25 (2011) suggests the ACLs for golden tilefish can be increased, which is being considered by the South Atlantic Fishery Management Council in Regulatory Amendment to the Fishery Management Plan for the Snapper Grouper Fishery in the South Atlantic Region (Snapper Grouper FMP).

Commercial Sector

Approximately 20% of snapper grouper permitted vessels from the Gulf of Mexico and South Atlantic are randomly selected each year to fill out supplementary logbooks. SEDAR 25 (2011) indicated golden tilefish discards could not be calculated for the commercial sector due to very low sample size. Fewer than 10 trips reported golden tilefish discards during the period 2002-2010. That total included all commercial fishing gear. Several factors suggest that few golden tilefish are discarded in the commercial fishery. Golden tilefish have very specific habitat requirements and commercial fishermen report that they are able to eliminate bycatch of tilefish during closed seasons by avoiding known tilefish habitat.

Barotrauma likely results in high fishing mortality because golden tilefish habitat is relatively deep (300 feet or deeper) and those fish were retained rather than discarded dead. In addition,
there is no minimum size limit for golden tilefish. Given the rare reporting of golden tilefish discards, the ease with which golden tilefish bycatch can be avoided, the likely high mortality of caught fish, and the lack of minimum size limit, which would require discarding; SEDAR 25 (2011) determined that golden tilefish discards are probably few in number.

Recreational Sector

For the recreational fishery, estimates of the number of recreational discards are available from Marine Recreational Fisheries Statistical Survey (MRFSS) and the NMFS headboat survey. The MRFSS system classifies recreational catch into three categories:

- **Type A** - Fishes that were caught, landed whole, and available for identification and enumeration by the interviewers.

- **Type B** - Fishes that were caught but were either not kept or not available for identification:
  - Type B1 - Fishes that were caught and filleted, released dead, given away, or disposed of in some way other than Types A or B2.
  - Type B2 - Fishes that were caught and released alive.

Length and/or weight are unknown for all modes of fishing covered by the MRFSS in the South Atlantic sub-region. All live released fish statistics (B2 fish) in charter or party/charter mode were adjusted in the SEDAR 25 (2011). At-sea sampling of headboat discards was initiated (NC/SC in 2004, GA/FL in 2005) as part of the improved for-hire surveys to characterize the size distribution of live discarded fishes. Where estimates for numbers of discards are available, variance estimates are high. No discarded golden tilefish were recorded from MRFSS for 2006-2010. The estimated number of discarded golden tilefish for 2005 is 1,036 fish. No estimates of discarded golden tilefish are available from headboats (SEDAR 25 2011).

Finfish Bycatch Mortality

SEDAR 25 (2011) indicates that bycatch and discards of golden tilefish were thought to be low overall in the South Atlantic. The recommended discard mortality rate for golden tilefish is 100%. No discard estimates were included in the assessment model as discards are assumed to be negligible.

Practicability of Management Measures in Directed Fisheries Relative to their Impact on Bycatch and Bycatch Mortality

Amendment 18B to the Snapper Grouper FMP includes alternatives addressing the golden tilefish commercial sector that would implement gear specific endorsements, and/or change the fishing year. These actions could reduce the number of vessels targeting golden tilefish. Since bycatch is already very low for golden tilefish, no change would be expected in the level of golden tilefish bycatch. Commercial fishing for golden tilefish is very selective and the trip limit
is large enough to prevent much discarded. Furthermore, there is not a great deal of recreational effort since the species is found in deep water and far offshore.

Regulatory Amendment 12 to the Snapper Grouper FMP would consider an increase in the commercial and recreational ACL based on the results from the most recent stock assessment (SEDAR 25 2011). An increase in the ACL is not expected to change the magnitude of bycatch in the commercial sector since there is no minimum size limit and all golden tilefish are retained. In the recreational sector, there is a 1 fish per vessel limit. However, golden tilefish are not generally caught when fishermen target other snapper grouper species. Furthermore, recreational catch of golden tilefish is extremely small (Table 2) and there were no discards reported in the recreational sector during 2006-2010. As the recreational allocation is only 3% of the overall ACL, only a small increase in the recreational ACL would be expected. Therefore, very little change in the bycatch of golden tilefish is expected from an increase in the recreational ACL.

**Ecological Effects Due to Changes in the Bycatch**

Alternatives proposed golden tilefish in Amendment 18B to the Snapper Grouper FMP addressing the golden tilefish commercial fishery that would implement gear specific endorsements, and/or change the fishing year could reduce the number of vessels targeting golden tilefish. Bycatch is already is extremely low and no change in bycatch would be expected from the proposed measures. Regulatory Amendment 12 to the Snapper Grouper FMP includes alternative to increase the commercial and recreational ACL and is not expected to increase the number of regulatory discards.

Overall fishing effort could decrease in the commercial sector in response to the specification of endorsements if all individuals who qualify for endorsements. In contrast, the increase in the commercial and recreational ACLs proposed in Regulatory Amendment 12 to the Snapper Grouper FMP could increase effort on golden tilefish. However, the Council’s Scientific and Statistical Committee has established a large buffer between the overfishing limit and the acceptable biological catch (which is set equal to the ACL). Commercial fishery for golden tilefish is very selective, and few incidental species are taken. Therefore, an increase in the ACL would not be expected to negatively affect the golden tilefish stock, and few ecological changes would be expected for proposed measures in Amendment 18B or Regulatory Amendment 12 to the Snapper Grouper FMP.

The Comprehensive ACL Amendment for species in FMPs not experiencing overfishing includes additional measures to reduce bycatch in the snapper grouper fishery with the possible establishment of species units. Species grouping would be based on biological, geographic, economic, taxonomic, technical, social, and ecological factors. Amendment 14 to the Snapper Grouper FMP (SAFMC 2009) established Marine Protected Areas to protect a portion of the population and habitat of long-lived, deepwater snapper grouper species including golden tilefish, from directed fishing pressure to achieve a more natural sex ratio, age, and size structure.
Changes in the Bycatch of Other Fish Species and Resulting Population and Ecosystem Effects

The establishment of an endorsement program in Amendment 18B to the Snapper Grouper FMP is not expected to result in changes in bycatch of other fish species and result in ecosystem changes. The catch level of golden tilefish is constrained by the ACL. The endorsement action would identify those individuals who could target golden tilefish.

Furthermore, the increase in the ACLs proposed in Regulatory Amendment 12 to the Snapper Grouper FMP would not be expected to change the magnitude of bycatch for golden tilefish. Currently all golden tilefish caught are retained by commercial fishermen and recreational catch is minor. With an increased in the ACLs, it is expected fishermen would continue to retain all golden tilefish caught and recreational catch would continue to be very small.

Effects on Marine Mammals and Birds

Under Section 118 of the Marine Mammal Protection Act (MMPA), NOAA Fisheries Service must publish, at least annually, a List of Fisheries (LOF) that places all U.S. commercial fisheries into one of three categories based on the level of incidental serious injury and mortality of marine mammals that occurs in each fishery. Of the gear utilized within the snapper grouper fishery, only the black sea bass pot is considered to pose an entanglement risk to large whales. The southeast U.S. Atlantic black sea bass pot fishery is included in the grouping of the Atlantic mixed species trap/pot fisheries, which the 2009 List of Fisheries classifies as a Category II (73 FR 73032; December 1, 2008). Gear types used in these fisheries are determined to have occasional incidental mortality and serious injury of marine mammals. For the snapper grouper fishery, the best available data on protected species interactions are from the Southeast Fisheries Science Center (SEFSC) Supplementary Discard Data Program (SDDP) initiated in July of 2001 and sub-samples 20% of the vessels with an active permit. Since August 2001, only three interactions with marine mammals have been documented; each was taken by handline gear and each release alive (McCarthy SEFSC database). The bottom longline/hook-and-line component of the South Atlantic snapper grouper fishery remains a Category III under the LOF.

Although the gear type used within the black sea bass pot fishery can pose an entanglement risk to large whales due to their distribution and occurrence, sperm, fin, sei, and blue whales are unlikely to overlap with the black sea bass pot fishery operated within the snapper grouper fishery since it is executed primarily off North Carolina and South Carolina in waters ranging from 70-120 feet deep (21.3-36.6 meters). There are no known interactions between the black sea bass pot fishery and large whales. NOAA Fisheries Service’s biological opinion on the continued operation of the South Atlantic snapper grouper fishery determined the possible adverse effects resulting from the fishery are extremely unlikely. Thus, the continued operation of the snapper grouper fishery in the southeast U.S. Atlantic EEZ is not likely to adversely affect sperm, fin, sei, and blue whales (NMFS 2006).

Northern right and humpback whales may overlap both spatially and temporally with the black sea bass pot fishery. Recent revisions to the Atlantic Large Whale Take Reduction Plan have
folded the Atlantic mixed species trap/pot fisheries into the plan (72 FR 193; October 5, 2007). The new requirements will help further reduce the likelihood of northern right and humpback whale entanglement in black sea bass pot gear.

The Bermuda petrel and roseate tern occur within the action area. Bermuda petrels are occasionally seen in the waters of the Gulf Stream off the coasts of North and South Carolina during the summer. Sightings are considered rare and only occurring in low numbers (Alsop 2001). Roseate terns occur widely along the Atlantic coast during the summer but in the southeast region, they are found mainly off the Florida Keys (unpublished USFWS data). Interaction with fisheries has not been reported as a concern for either of these species.

Although, the Bermuda petrel and roseate tern occur within the action area, these species are not commonly found and neither has been described as associating with vessels or having had interactions with the snapper grouper fishery. Thus, it is believed that the snapper grouper fishery is not likely to negatively affect the Bermuda petrel and the roseate tern. Measures proposed in Amendment 18B and Regulatory Amendment 12 to the Snapper Grouper FMP are not expected to negatively affect marine mammals and birds.

**Changes in Fishing, Processing, Disposal, and Marketing Costs**

The establishment of an endorsement program in Amendment 18B to the Snapper Grouper FMP would be expected to affect the cost of fishing operations. Regulatory Amendment 12 to the Snapper Grouper FMP includes alternatives that could increase the golden tilefish ACL. Thus positive economic benefits could occur.

**Changes in Fishing Practices and Behavior of Fishermen**

An endorsement program proposed in Amendment 18B to the Snapper Grouper FMP could result in a modification of fishing practices by commercial and recreational fishermen; however, this change in behavior is unlikely to increase the level of bycatch, which is currently extremely low. Furthermore, an increase in the ACL proposed in Regulatory Amendment 12 to the Snapper Grouper FMP could change fishing practices and behavior of fishermen but it is unlikely to affect the level of bycatch. It is expected there would be no regulatory discards in the commercial sector and very minor discarding in the recreational sector.

**Changes in Research, Administration, and Enforcement Costs and Management Effectiveness**

Research funds for observer programs, as well as gear testing and testing of electronic devices are also available each year in the form of grants from the Foundation, Marine Fisheries Initiative (MARFIN), Saltonstall-Kennedy (S-K) program, and the Cooperative Research Program (CRP). Efforts are made to emphasize the need for observer and logbook data in requests for proposals issued by granting agencies. Amendment 18A to the Snapper Grouper FMP was approved by the Council in December and includes an action, which will improve data reporting the recreational sector. A generic amendment is being developed by the Council and Gulf of Mexico Fishery Management Council to improve data reporting.
Changes in the Economic, Social, or Cultural Value of Fishing Activities and Non-Consumptive Uses of Fishery Resources

Preferred management measures, including those that are likely to increase or decrease discards could result in social and/or economic impacts as discussed in Section 4 of Amendment 18B and Regulatory Amendment 12 to the Snapper Grouper FMP.

Changes in the Distribution of Benefits and Costs

There is very little bycatch in the golden tilefish portion of the snapper grouper fishery. Measures proposed in Amendment 18B and Regulatory Amendment 12 to the Snapper Grouper FMP are not expected to increase the level of bycatch. Changes in the distribution and costs of proposed measures are described in Section 4 of the amendments.

Social Effects

The social effects of all the management measure are described in Section 4 of Amendment 18B and Regulatory Amendment 12 to the Snapper Grouper FMP.

Conclusion

This section 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, there is very little bycatch of golden tilefish in the commercial or recreational sectors of the snapper grouper fishery. Proposed measures in Amendment 18B and Regulatory Amendment 12 to the Snapper Grouper FMP are not expected to increase since golden tilefish are not discarded by commercial fishermen and recreational catch is extremely minor.

Additional measures to reduce bycatch in the snapper grouper fishery will be implemented in the future. The Comprehensive ACL Amendment includes measures to reduce bycatch in the snapper grouper fishery including species grouping based on biological, geographic, economic, taxonomic, technical, social, and ecological factors.
Appendix F. History of Management

History of Management of the South Atlantic Snapper Grouper Fishery
The snapper grouper fishery is highly regulated; some of the species included in this amendment have been regulated since 1983. The following table summarizes actions in each of the amendments to the original FMP, as well as some events not covered in amendment actions.

<table>
<thead>
<tr>
<th>Document</th>
<th>All Actions Effective By:</th>
<th>Proposed Rule Final Rule</th>
<th>Major Actions. Note that not all details are provided here. Please refer to Proposed and Final Rules for all impacts of listed documents.</th>
</tr>
</thead>
</table>
-8” limit – black sea bass  
-4” trawl mesh size  
-Gear limitations – poisons, explosives, fish traps, trawls  
-Designated modified habitats or artificial reefs as Special Management Zones (SMZs) |
-Prohibited harvest of goliath grouper in SMZs. |
| Amendment #1 (1988a)       | 01/12/89                   | PR: 53 FR 42985 FR: 54 FR 1720 | -Prohibited trawl gear to harvest fish south of Cape Hatteras, NC and north of Cape Canaveral, FL.  
-Directed fishery defined as vessel with trawl gear and ≥200 lbs s-g on board.  
-Established rebuttable assumption that vessel with s-g on board had harvested such fish in EEZ. |
| Regulatory Amendment #2 (1988b) | 03/30/89                   | PR: 53 FR 32412 FR: 54 FR 8342 | -Established 2 artificial reefs off Ft. Pierce, FL as SMZs. |
| Notice of Control Date     | 09/24/90                   | 55 FR 39039                | -Anyone entering federal wreckfish fishery in the EEZ off S. Atlantic states after 09/24/90 was not assured of future access if limited entry program developed. |
| Regulatory Amendment #3 (1989) | 11/02/90                   | PR: 55 FR 28066 FR: 55 FR 40394 | -Established artificial reef at Key Biscayne, FL as SMZ. Fish trapping, bottom longlining, spear fishing, and harvesting of Goliath grouper prohibited in SMZ. |
| Amendment #2 (1990)        | 10/30/90                   | PR: 55 FR 31406 FR: 55 FR 46213 | -Prohibited harvest/possession of goliath grouper in or from the EEZ  
-Defined overfishing for goliath grouper and other species |
<table>
<thead>
<tr>
<th>Document</th>
<th>All Actions Effective By</th>
<th>Proposed Rule</th>
<th>Major Actions. Note that not all details are provided here. Please refer to Proposed and Final Rules for all impacts of listed documents.</th>
</tr>
</thead>
</table>
| Emergency Rule            | 8/3/90                   | 55 FR 32257   | -Added wreckfish to the FMU  
-Fishing year beginning 4/16/90  
-Commercial quota of 2 million pounds  
-Commercial trip limit of 10,000 pounds per trip |
| Fishery Closure Notice   | 8/8/90                   | 55 FR 32635   | -Fishery closed because the commercial quota of 2 million pounds was reached |
| Emergency Rule Extension  | 11/1/90                  | 55 FR 40181   | -extended the measures implemented via emergency rule on 8/3/90 |
| Amendment #3 (1990b)      | 01/31/91                 | PR: 55 FR 39023 FR: 56 FR 2443 | -Added wreckfish to the FMU;  
-Defined optimum yield and overfishing  
-Required permit to fish for, land or sell wreckfish;  
-Required catch and effort reports from selected, permitted vessels;  
-Established control date of 03/28/90;  
-Established a fishing year for wreckfish starting April 16;  
-Established a process to set annual quota, with initial quota of 2 million pounds; provisions for closure;  
-Established 10,000 pound trip limit;  
-Established a spawning season closure for wreckfish from January 15 to April 15; and  
-Provided for annual adjustments of wreckfish management measures; |
<p>| Notice of Control Date   | 07/30/91                 | 56 FR 36052   | -Anyone entering federal snapper grouper fishery (other than for wreckfish) in the EEZ off S. Atlantic states after 07/30/91 was not assured of future access if limited entry program developed. |</p>
<table>
<thead>
<tr>
<th>Document</th>
<th>All Actions Effective By:</th>
<th>Proposed Rule Final Rule</th>
<th>Major Actions. Note that not all details are provided here. Please refer to Proposed and Final Rules for all impacts of listed documents.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amendment #4 (1991)</td>
<td>01/01/92</td>
<td>PR: 56 FR 29922 FR: 56 FR 56016</td>
<td>-Prohibited gear: fish traps except black sea bass traps north of Cape Canaveral, FL; entanglement nets; longline gear inside 50 fathoms; bottom longlines to harvest wreckfish**; powerheads and bangsticks in designated SMZs off S. Carolina. -defined overfishing/overfished and established rebuilding timeframe: red snapper and groupers ≤ 15 years (year 1 = 1991); other snappers, greater amberjack, black sea bass, red porgy ≤ 10 years (year 1 = 1991) -Required permits (commercial &amp; for-hire) and specified data collection regulations -Established an assessment group and annual adjustment procedure (framework) -Permit, gear, and vessel id requirements specified for black sea bass traps. -No retention of snapper grouper spp. caught in other fisheries with gear prohibited in snapper grouper fishery if captured snapper grouper had no bag limit or harvest was prohibited. If had a bag limit, could retain only the bag limit. -8” limit – lane snapper -10” limit – vermilion snapper (recreational only) -12” limit – red porgy, vermilion snapper (commercial only), gray, yellowtail, mutton, schoolmaster, queen, blackfin, cubera, dog, mahogany, and silk snappers -20” limit – red snapper, gag, and red, black, scamp, yellowfin, and yellowmouth groupers. -28” FL limit – greater amberjack (recreational only) -36” FL or 28” core length – greater amberjack (commercial only) -bag limits – 10 vermilion snapper, 3 greater amberjack -aggregate snapper bag limit – 10/person/day, excluding vermilion snapper and allowing no more than 2 red snappers -aggregate grouper bag limit – 5/person/day, excluding Nassau and goliath grouper, for which no retention (recreational &amp; commercial) is allowed -spawning season closure – commercial harvest greater amberjack &gt; 3 fish bag prohibited in April south of Cape Canaveral, FL -spawning season closure – commercial harvest mutton snapper &gt;snapper aggregate prohibited during May and June -charter/headboats and excursion boat possession limits extended</td>
</tr>
<tr>
<td>Document</td>
<td>All Actions Effective By:</td>
<td>Proposed Rule Final Rule</td>
<td>Major Actions. Note that not all details are provided here. Please refer to Proposed and Final Rules for all impacts of listed documents.</td>
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<tr>
<td>Amendment #5 (1992a)</td>
<td>04/06/92</td>
<td>PR: 56 FR 57302</td>
<td>-Wreckfish: established limited entry system with ITQs; required dealer to have permit; rescinded 10,000 lb. trip limit; required off-loading between 8 am and 5 pm; reduced occasions when 24-hour advance notice of off-loading required for off-loading; established procedure for initial distribution of percentage shares of TAC</td>
</tr>
<tr>
<td>Emergency Rule</td>
<td>8/31/92</td>
<td>57 FR 39365</td>
<td>-Black Sea Bass (bsb): modified definition of bsb pot; allowed multi-gear trips for bsb; allowed retention of incidentally-caught fish on bsb trips</td>
</tr>
<tr>
<td>Emergency Rule Extension</td>
<td>11/30/92</td>
<td>57 FR 56522</td>
<td>-Black Sea Bass: modified definition of bsb pot; allowed multi-gear trips for bsb; allowed retention of incidentally-caught fish on bsb trips</td>
</tr>
<tr>
<td>Regulatory Amendment #4 (1992b)</td>
<td>07/06/93</td>
<td>FR: 58 FR 36155</td>
<td>-Black Sea Bass: modified definition of bsb pot; allowed multi-gear trips for bsb; allowed retention of incidentally-caught fish on bsb trips</td>
</tr>
<tr>
<td>Regulatory Amendment #5 (1992c)</td>
<td>07/31/93</td>
<td>PR: 58 FR 13732</td>
<td>-Established 8 SMZs off S. Carolina, where only hand-held, hook-and-line gear and spearfishing (excluding powerheads) was allowed.</td>
</tr>
<tr>
<td>Amendment #6 (1993)</td>
<td>07/27/94</td>
<td>PR: 59 FR 9721</td>
<td>-set up separate commercial Total Allowable Catch (TAC) levels for golden tilefish and snowy grouper</td>
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<tr>
<td></td>
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<td>FR: 59 FR 27242</td>
<td>-established commercial trip limits for snowy grouper, golden tilefish, speckled hind, and warsaw grouper</td>
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<td>-included golden tilefish in grouper recreational aggregate bag limits</td>
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<td>-prohibited sale of warsaw grouper and speckled hind</td>
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<td>-100% logbook coverage upon renewal of permit</td>
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<td>-creation of the Oculina Experimental Closed Area</td>
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<td>-data collection needs specified for evaluation of possible future IFQ system</td>
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<tr>
<td>Amendment #7 (1994a)</td>
<td>01/23/95</td>
<td>PR: 59 FR 47833</td>
<td>-12” FL – hogfish</td>
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<td>FR: 59 FR 66270</td>
<td>-16” TL – mutton snapper</td>
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<td>-required dealer, charter and headboat federal permits</td>
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<td>-allowed sale under specified conditions</td>
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<td>-specified allowable gear and made allowance for experimental gear</td>
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<td>-allowed multi-gear trips in N. Carolina</td>
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<td>-added localized overfishing to list of problems and objectives</td>
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<td>-adjusted bag limit and crew specs. for charter and head boats</td>
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<td>-modified management unit for scup to apply south of Cape Hatteras, NC</td>
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<td>-modified framework procedure</td>
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<tr>
<td>Regulatory Amendment #6 (1994)</td>
<td>05/22/95</td>
<td>PR: 60 FR 8620</td>
<td>Established actions which applied only to EEZ off Atlantic coast of FL: Bag limits – 5 hogfish/person/day (recreational only), 2 cubera snapper/person/day &gt; 30” TL; 12” TL – gray triggerfish</td>
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<td>FR: 60 FR 19683</td>
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<tr>
<td>Notice of Control Date</td>
<td>04/23/97</td>
<td>62 FR 22995</td>
<td>-Anyone entering federal bsb pot fishery off S. Atlantic states after 04/23/97 was not assured of future access if</td>
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<td>Document</td>
<td>All Actions Effective By</td>
<td>Proposed Rule Final Rule</td>
<td>Major Actions. Note that not all details are provided here. Please refer to Proposed and Final Rules for all impacts of listed documents.</td>
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<tr>
<td>Amendment #8 (1997a)</td>
<td>12/14/98</td>
<td>PR: 63 FR 1813 FR: 63 FR 38298</td>
<td>limited entry program developed.</td>
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<td></td>
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<td>-established program to limit initial eligibility for snapper grouper fishery: Must demonstrate landings of any species in SG FMU in 1993, 1994, 1995 or 1996; and have held valid SG permit between 02/11/96 and 02/11/97.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>-granted transferable permit with unlimited landings if vessel landed $\geq$ 1,000 lbs. of snapper grouper spp. in any of the years</td>
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<td>-granted non-transferable permit with 225 lb. trip limit to all other vessels</td>
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<td></td>
<td>-modified problems, objectives, OY, and overfishing definitions</td>
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<td>-expanded Council’s habitat responsibility</td>
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<td>-allowed retention of snapper grouper spp. in excess of bag limit on permitted vessel with a single bait net or cast nets on board</td>
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<td>-allowed permitted vessels to possess filleted fish harvested in the Bahamas under certain conditions.</td>
</tr>
<tr>
<td>Interim Rule Request</td>
<td>1/16/98</td>
<td></td>
<td>-Council requested all Amendment 9 measures except black sea bass pot construction changes be implemented as an interim request under MSA</td>
</tr>
<tr>
<td>Action Suspended</td>
<td>5/14/98</td>
<td></td>
<td>-NMFS informed the Council that action on the interim rule request was suspended</td>
</tr>
<tr>
<td>Emergency Rule Request</td>
<td>9/24/98</td>
<td></td>
<td>-Council requested Amendment 9 be implemented via emergency rule</td>
</tr>
<tr>
<td>Request not Implemented</td>
<td>1/22/99</td>
<td></td>
<td>-NMFS informed the Council that the final rule for Amendment 9 would be effective 2/24/99; therefore they did not implement the emergency rule</td>
</tr>
<tr>
<td>Document</td>
<td>All Actions Effective By</td>
<td>Proposed Rule</td>
<td>Major Actions. Note that not all details are provided here. Please refer to Proposed and Final Rules for all impacts of listed documents.</td>
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<tr>
<td>Amendment #9 (1998b)</td>
<td>2/24/99</td>
<td>PR: 63 FR 63276 FR: 64 FR 3624</td>
<td>-Red porgy: 14” length (recreational and commercial); 5 fish rec. bag limit; no harvest or possession &gt; bag limit, and no purchase or sale, in March and April. -Black sea bass: 10” length (recreational and commercial); 20 fish rec. bag limit; required escape vents and escape panels with degradable fasteners in bsb pots -Greater amberjack: 1 fish rec. bag limit; no harvest or possession &gt; bag limit, and no purchase or sale, during April; quota = 1,169,931 lbs; began fishing year May 1; prohibited coring. -Vermilion snapper: 11” length (recreational) Gag: 24” length (recreational); no commercial harvest or possession &gt; bag limit, and no purchase or sale, during March and April. -Black grouper: 24” length (recreational and commercial); no harvest or possession &gt; bag limit, and no purchase or sale, during March and April. -Gag and Black grouper: within 5 fish aggregate grouper bag limit, no more than 2 fish may be gag or black grouper (individually or in combination) -All SG without a bag limit: aggregate recreational bag limit 20 fish/person/day, excluding tomtate and blue runners -Vessels with longline gear aboard may only possess snowy, warsaw, yellowedge, and misty grouper, and golden, blueline and sand tilefish.</td>
</tr>
<tr>
<td>Amendment #9 (1998b) resubmitted</td>
<td>10/13/00</td>
<td>PR: 63 FR 63276 FR: 65 FR 55203</td>
<td>-Commercial trip limit for greater amberjack</td>
</tr>
<tr>
<td>Regulatory Amendment #8 (2000a)</td>
<td>11/15/00</td>
<td>PR: 65 FR 41041 FR: 65 FR 61114</td>
<td>-Established 12 SMZs at artificial reefs off Georgia; revised boundaries of 7 existing SMZs off Georgia to meet CG permit specs; restricted fishing in new and revised SMZs</td>
</tr>
<tr>
<td>Emergency Interim Rule</td>
<td>09/08/99, expired 08/28/00</td>
<td>64 FR 48324 and 65 FR 10040</td>
<td>-Prohibited harvest or possession of red porgy.</td>
</tr>
<tr>
<td>Emergency Action</td>
<td>9/3/99</td>
<td>64 FR 48326</td>
<td>-Reopened the Amendment 8 permit application process</td>
</tr>
<tr>
<td>Amendment #10 (1998d)</td>
<td>07/14/00</td>
<td>PR: 64 FR 37082 and 64 FR 59152 FR: 65 FR 37292</td>
<td>-Identified EFH and established HAPCs for species in the SG FMU.</td>
</tr>
<tr>
<td>Document</td>
<td>All Actions Effective By:</td>
<td>Proposed Rule Final Rule</td>
<td>Major Actions. Note that not all details are provided here. Please refer to Proposed and Final Rules for all impacts of listed documents.</td>
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</tr>
</tbody>
</table>
| Amendment #11 (1998e) | 12/02/99 | PR: 64 FR 27952 FR: 64 FR 59126 | - MSY proxy: goliath and Nassau grouper = 40% static SPR; all other species = 30% static SPR  
- OY: hermaphroditic groupers = 45% static SPR; goliath and Nassau grouper = 50% static SPR; all other species = 40% static SPR  
- Overfished/overfishing evaluations:  
  BSB: overfished (MSST=3.72 mp, 1995 biomass=1.33 mp); undergoing overfishing (MFMT=0.72, F1991-1995=0.95)  
  Vermilion snapper: overfished (static SPR = 21-27%).  
  Red porgy: overfished (static SPR = 14-19%).  
  Red snapper: overfished (static SPR = 24-32%)  
  Gag: overfished (static SPR = 27%)  
  Scamp: no longer overfished (static SPR = 35%)  
  Speckled hind: overfished (static SPR = 8-13%)  
  Warsaw grouper: overfished (static SPR = 6-14%)  
  Snowy grouper: overfished (static SPR = 5-15%)  
  White grunt: no longer overfished (static SPR = 29-39%)  
  Golden tilefish: overfished (couldn’t estimate static SPR)  
  Nassau grouper: overfished (couldn’t estimate static SPR)  
  Goliath grouper: overfished (couldn’t estimate static SPR)  
  Overfishing level: goliath and Nassau grouper = F>F40% static SPR; all other species: = F>F30% static SPR  
  Approved definitions for overfished and overfishing.  
  MSST = [(1-M) or 0.5 whichever is greater]*BMSY.  
  MFMT = FMSY |
| Amendment #12 (2000c) | 09/22/00 | PR: 65 FR 35877 FR: 65 FR 51248 | - Red porgy: MSY=4.38 mp; OY=45% static SPR; MFMT=0.43; MSST=7.34 mp; rebuilding timeframe=18 years (1999=year 1); no sale during Jan-April; 1 fish bag limit; 50 lb. bycatch comm. trip limit May-December; modified management options and list of possible framework actions. |
| Amendment #13A (2003b) | 04/26/04 | PR: 68 FR 66069 FR: 69 FR 15731 | - Extended for an indefinite period the regulation prohibiting fishing for and possessing snapper grouper spp. within the Oculina Experimental Closed Area. |
| Notice of Control Date | 10/14/05 | 70 FR 60058 | - The Council is considering management measures to further limit participation or effort in the commercial fishery for snapper grouper species (excluding Wreckfish). |
1. Snowy Grouper Commercial: Quota (gutted weight) = 151,000 lbs gw in year 1, 118,000 lbs gw in year 2, and 84,000 lbs gw in year 3 onwards. Trip limit = 275 lbs gw in year 1, 175 lbs gw in year 2, and 100 lbs gw }
<table>
<thead>
<tr>
<th>Document</th>
<th>All Actions Effective By:</th>
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</tr>
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</table>
| Notice of Control Date | 3/8/07 | 72 FR 60794 | in year 3 onwards.  
Recreational: Limit possession to one snowy grouper in 5 grouper per person/day aggregate bag limit.  
2. Golden Tilefish Commercial: Quota of 295,000 lbs gw, 4,000 lbs gw trip limit until 75% of the quota is taken when the trip limit is reduced to 300 lbs gw. Do not adjust the trip limit downwards unless 75% is captured on or before September 1.  
Recreational: Limit possession to 1 golden tilefish in 5 grouper per person/day aggregate bag limit.  
3. Vermilion Snapper Commercial: Quota of 1,100,000 lbs gw.  
Recreational: 12” size limit.  
4. Black Sea Bass Commercial: Commercial quota (gutted weight) of 477,000 lbs gw in year 1, 423,000 lbs gw in year 2, and 309,000 lbs gw in year 3 onwards. Require use of at least 2” mesh for the entire back panel of black sea bass pots effective 6 months after publication of the final rule. Require black sea bass pots be removed from the water when the quota is met. Change fishing year from calendar year to June 1 – May 31.  
Recreational: Recreational allocation of 633,000 lbs gw in year 1, 560,000 lbs gw in year 2, and 409,000 lbs gw in year 3 onwards. Increase minimum size limit from 10” to 11” in year 1 and to 12” in year 2. Reduce recreational bag limit from 20 to 15 per person per day. Change fishing year from the calendar year to June 1 through May 31.  
5. Red Porgy Commercial and recreational  
1. Retain 14” TL size limit and seasonal closure (retention limited to the bag limit);  
2. Specify a commercial quota of 127,000 lbs gw and prohibit sale/purchase and prohibit harvest and/or possession beyond the bag limit when quota is taken and/or during January through April;  
3. Increase commercial trip limit from 50 lbs ww to 120 red porgy (210 lbs gw) during May through December;  
4. Increase recreational bag limit from one to three red porgy per person per day. |
| Amendment #14 (2007) Sent to NMFS 7/18/07 | 2/12/09 | PR: 73 FR 32281 FR: 74 FR 1621 | -The Council may consider measures to limit participation in the snapper grouper for-hire fishery  
Establish eight deepwater Type II marine protected areas (MPAs) to protect a portion of the population and habitat of long-lived deepwater snapper grouper species. |
<p>| Amendment #15A (2008a) | 3/14/08 | 73 FR 14942 | - Establish rebuilding plans and SFA parameters for snowy grouper, black sea bass, and red porgy. |
| Amendment #15B (2008b) | 2/15/10 | PR: 74 FR 30569 FR: 74 FR 58902 | - Prohibit the sale of bag-limit caught snapper grouper species. |</p>
<table>
<thead>
<tr>
<th>Document</th>
<th>All Actions Effective By:</th>
<th>Proposed Rule</th>
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</thead>
</table>
| Amendment #16 (SAFMC 2009a) | 7/29/09 | PR: 74 FR 6297 | FR: 74 FR 30964 | -Reduce the effects of incidental hooking on sea turtles and smalltooth sawfish.
- Adjust commercial renewal periods and transferability requirements.
- Implement plan to monitor and assess bycatch,
- Establish reference points for golden tilefish.
- Establish allocations for snowy grouper (95% com & 5% rec) and red porgy (50% com & 50% rec). |
| Amendment #17A (SAFMC 2010a) | 12/3/10 red snapper closure; circle hooks March 3, 2011 | PR: 75 FR 49447 | FR: 75 FR 76874 | -Specify SFA parameters for gag and vermillion snapper
-For gag grouper: Specify interim allocations 51%com & 49%rec; rec & com spawning closure January through April; directed com quota=348,440 pounds gutted weight; reduce 5-grouper aggregate to 3-grouper and 2 gag/black to 1 gag/black and exclude captain & crew from possessing bag limit.
-For vermillion snapper: Specify interim allocations 68%com & 32%rec; directed com quota split Jan-June=168,501 pounds gutted weight and 155,501 pounds July-Dec; reduce bag limit from 10 to 4 and a rec closed season October through May 15. In addition, the NMFS RA will set new regulations based on new stock assessment.
-Require dehooking tools. |
| Emergency Rule | 12/3/10 | 75 FR 76890 | | - Delay the effective date of the area closure for snapper grouper species implemented through Amendment 17A |
| Amendment #17B (SAFMC 2010b) | January 31, 2011 | PR: 75 FR 62488 | FR: 75 FR 82280 | -Specify ACLs, ACTs, and AMs, where necessary, for 9 species undergoing overfishing.
-Modify management measures as needed to limit harvest to the ACL or ACT.
-Update the framework procedure for specification of total allowable catch. |
<p>| Notice of Control Date | 12/4/08 | 74 FR 7849 | | Establishes a control date for the golden tilefish fishery of the South Atlantic |</p>
<table>
<thead>
<tr>
<th>Document</th>
<th>All Actions Effective By:</th>
<th>Proposed Rule Final Rule</th>
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</tr>
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<tbody>
<tr>
<td>Notice of Control Date</td>
<td>12/4/08</td>
<td>74 FR 7849</td>
<td>- Establishes control date for black sea bass pot fishery of the South Atlantic</td>
</tr>
<tr>
<td>Amendment #19</td>
<td></td>
<td>7/22/10</td>
<td>74 FR 7849</td>
</tr>
<tr>
<td>(Comprehensive Ecosystem-</td>
<td></td>
<td>PR: 75 FR 14548</td>
<td>- Designation of deepwater coral HAPCs</td>
</tr>
<tr>
<td>based Amendment 1) (SAFMC</td>
<td></td>
<td>FR: 75 FR 35330</td>
<td></td>
</tr>
<tr>
<td>2010c)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regulatory Amendment 10</td>
<td>5/31/11</td>
<td>PR: 76 FR 9530</td>
<td>Eliminate closed area for snapper grouper species approved in Amendment 17A.</td>
</tr>
<tr>
<td>(2011a)</td>
<td></td>
<td>FR: 76 FR 23728</td>
<td></td>
</tr>
<tr>
<td>Regulatory Amendment 9</td>
<td>Bag limit: 6/22/11</td>
<td>PR: 76 FR 23930</td>
<td>- Establish trip limit for vermilion snapper and gag, increase trip limit for greater amberjack, and reduce bag limit for black sea bass</td>
</tr>
<tr>
<td>(2011b)</td>
<td>Trip limits: 7/15/11</td>
<td>FR: 76 FR 34892</td>
<td></td>
</tr>
<tr>
<td>Regulatory Amendment 11</td>
<td>TBD</td>
<td>TBD</td>
<td>- Eliminate 240 ft closure for six deepwater species.</td>
</tr>
<tr>
<td>Amendment #18A (TBD)</td>
<td>TBD</td>
<td>TBD</td>
<td>- Limit participation and effort in the black sea bass fishery</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Modifications to management of the black sea bass pot fishery</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Improve the accuracy, timing, and quantity of fisheries statistics</td>
</tr>
<tr>
<td>Document</td>
<td>All Actions Effective By</td>
<td>Proposed Rule</td>
<td>Major Actions. Note that not all details are provided here. Please refer to Proposed and Final Rules for all impacts of listed documents.</td>
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<td>----------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Amendment 18B (TBD)            | TBD                      | TBD           | - Limit participation and effort in the golden tilefish fishery  
- Change the golden tilefish fishing year  
- Modify trip limits  
- Update SFA parameters based on assessment |
| Amendment #20A                 | TBD                      | TBD           | - Redistribute latent share for the wreckfish ITQ program. |
| Amendment #20B                 | TBD                      | TBD           | - Update wreckfish ITQ according to reauthorized Magnuson-Stevens Act |
| Amendment #23 (Comprehensive Ecosystem-based Amendment 2) | TBD | TBD | - Designate the Deepwater MPAs as EFH-HAPCs  
- Limit harvest of snapper grouper species in SC Special Management Zones to the bag limit  
- Modify sea turtle release gear |
| Comprehensive ACL Amendment    | TBD                      | TBD           | - Establish ABC control rules, establish ABCs, ACLs, and AMs for species not undergoing overfishing  
- Remove some species from South Atlantic FMU  
- Specify allocations among the commercial, recreational, and for-hire sectors for species not undergoing overfishing  
- Limit the total mortality for federally managed species in the South Atlantic to the ACLs |
| Amendment #24                  | TBD                      | TBD           | - Specify MSY, rebuilding plan (including ACLs, AMs, and OY), and allocations for red grouper |
Tilefish P*=0.35 Projections

Prepared by the NOAA/NMFS Southeast Fisheries Science Center, Beaufort Laboratory
Issued: 27 January 2012

Description of projections

At the last South Atlantic Fishery Management Council’s, Scientific and Statistical Committee meeting (November 2011), a P* (probability of overfishing) level of 35% was established for tilefish based on the South Atlantic Fishery Management Council’s ABC control rule. This report describes projections based on a P*=35% for the U.S. South Atlantic tilefish population following the 2011 SEDAR 25 stock assessment.

Projection Methods

The recursive algorithm described in Shertzer et al. (2010) as sequential PASCL was used to estimate acceptable biological catch (ABC) levels consistent with P*=35%. The stochastic output from the Monte Carlo/Bootstrap (MCB) analysis of the SEDAR 25 stock assessment was incorporated into the sequential PASCL algorithm in order to carry all uncertainty from the assessment into the projections. This complexity added to the sequential PASCL algorithm resulted in a tremendous increase in the computation time. As a result, the completion of 5,000 iterations for a five year projection analysis took approximately 65 hours to run. This analysis was run two times to determine if 5,000 iterations was sufficient for the results to be independent of the random number seed. The difference between these two runs was negligible, with approximately a 1% difference in values. Because of time constraints, the final results presented in this analysis are based on an average of these two runs.

The sequential PASCL algorithm can take into account the uncertainty associated with implementation (i.e. catching the target). Because no estimates for this type of uncertainty are available for tilefish, this analysis assumed the implementation uncertainty was zero (i.e. realized catch equals ABC exactly). It should be noted that in recent years the quota for tilefish has been exceeded by varying amounts. Should that trend continue into future years, such overages will not be accounted for in this analysis, particularly for years beyond 2012.

Stochastic projections were run to predict stock status in years after the assessment, 2011-2015. The basic structure of the projection model was the same as that of the assessment model, and parameter estimates were those from the assessment and MCB output. Fully selected F was apportioned between landings according to the selectivity curves averaged across fisheries, using geometric mean F from the last three years of the assessment period.

Point estimates of initial abundance at age in the projection (start of 2011), other than at age 1, were taken to be the 2010 estimates from each MCB run of the assessment, discounted by 2010 natural and fishing mortalities.
Fishing rates or catch levels that define the projections were assumed to start in 2012, which is the earliest year management could react to this assessment. Because the assessment period ended in 2010, the projections required an initialization period (2011). Fishing mortality in 2011 was assumed equal to the geometric mean F from the last three years of the assessment period.

To characterize uncertainty in future stock dynamics, stochasticity was included in replicate projections, each an extension of a single MCB assessment model fit. Thus, projections carried forward uncertainties in natural mortality, as well as in estimated quantities such as spawner-recruit parameters, selectivity curves, and in initial (start of 2011) abundance at age. Initial and subsequent recruitment values were generated with stochasticity using a Monte Carlo procedure, in which the estimated Beverton-Holt model of each MCB fit was used to compute mean annual recruitment values. Variability was added to the mean values by choosing multiplicative deviations at random from the recruitment deviations estimated for that chosen MCB run.

Because the base run model assumed no recruitment deviation (i.e. no stochasticity) for years 2004-2010 at age-1, the initial projection year (start of 2011) ages 2-7, which correspond to age-1 recruits in 2004-2010, included additional variability in recruitment following the same method for subsequent years at age-1.

The 2011 total landings were compiled from several sources as follows. Commercial landings were obtained from the accumulated landings system (399,664 lb whole wgt). Recreational landings were obtained from a website query of the MRFSS database, which resulted in an estimate of 9,824 fish harvested in Florida in 2011. Using an average weight estimate of 6.21 pounds whole weight (see August 14, 2009 Memorandum from the SEFSC to SERO), the MRFSS estimate of landings was computed as 61,007 (lb whole wgt). Headboat landings were assumed to be zero for this analysis. In the projection analysis, total landings of 460 (1000 lb whole wgt) were used for 2011.

**Results**

The results of the stochastic population projections with $P^* = 35\%$ suggest the population can handle an increase in fishing mortality from the 2011 median estimate of 0.07 up to 0.09 (Table 1). This results in an increase in total landings to 668,000 (lb whole wgt) in 2012.
Table 1. Averaged results from two stochastic population projections for U.S. South Atlantic tilefish with a probability of overfishing ($P^*$) equal to 35%. Spawning stock biomass (SSB) is in units of female gonad weight (mt) and acceptable biological catch (ABC) (1000 lb whole weight).

<table>
<thead>
<tr>
<th>Year</th>
<th>pr(F&gt;F_{MSY})</th>
<th>F(10%)</th>
<th>F(50%)</th>
<th>F(90%)</th>
<th>pr(SSB&gt;SSB_{MSY})</th>
<th>SSB(10%)</th>
<th>SSB(50%)</th>
<th>SSB(90%)</th>
<th>ABC (1000 lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>0.23</td>
<td>0.03</td>
<td>0.07</td>
<td>0.16</td>
<td>0.94</td>
<td>28</td>
<td>50</td>
<td>106</td>
<td>460*</td>
</tr>
<tr>
<td>2012</td>
<td>0.35</td>
<td>0.04</td>
<td>0.09</td>
<td>0.24</td>
<td>0.95</td>
<td>28</td>
<td>53</td>
<td>118</td>
<td>668</td>
</tr>
<tr>
<td>2013</td>
<td>0.35</td>
<td>0.03</td>
<td>0.09</td>
<td>0.25</td>
<td>0.93</td>
<td>27</td>
<td>54</td>
<td>129</td>
<td>669</td>
</tr>
<tr>
<td>2014</td>
<td>0.35</td>
<td>0.03</td>
<td>0.09</td>
<td>0.25</td>
<td>0.91</td>
<td>26</td>
<td>55</td>
<td>137</td>
<td>666</td>
</tr>
<tr>
<td>2015</td>
<td>0.35</td>
<td>0.03</td>
<td>0.09</td>
<td>0.25</td>
<td>0.90</td>
<td>25</td>
<td>55</td>
<td>146</td>
<td>655</td>
</tr>
</tbody>
</table>

*ABC value for 2011 is based on estimated landings (see text).

The population projections indicate the spawning biomass and landings will reach a peak and then start to decline, in large part due to the increase in $F$ from 0.07 in 2011 to 0.09 in 2012 (Table 1). The Monte Carlo-bootstrap (MCB) results from the SEDAR 25 stock assessment also estimated some large year classes in the early 2000’s and the passing of these year classes through the age structure explains part of the patterns indicated above.

General comments on projections

As usual, projections should be interpreted in light of the model assumptions and key aspects of the data. Some major considerations are the following:

- The $P^*$ used in this analysis is conditional on the assumptions made about management/implementation uncertainty. In this case there was no information on this type of uncertainty and therefore it was assumed to be zero (e.g. realized catch = ABC). If this assumption is violated, the projection results would be affected.
- Although projections included many major sources of uncertainty, they did not include structural (model) uncertainty. That is, projection results are conditional on one set of functional forms used to describe population dynamics, selectivity, recruitment, etc.
- Fisheries were assumed to continue fishing at their estimated current proportions of total effort, using the estimated current selectivity patterns. New management regulations that alter those proportions or selectivities would likely affect projection results.
- The projections assumed that the estimated spawner-recruit relationship applies in the future. If future recruitment is characterized by runs of large or small year classes, possibly due to environmental or ecological conditions, stock trajectories may be affected.

Literature Cited

Figure 1. Averaged results from two stochastic projection analyses with P*=35%. Panel (A) solid circles indicate the value of P* for each year of the projection. Panel (B) and (C) indicate the 10th, 50th (solid line with filled circles), and 90th percentiles for fishing mortality and spawning stock biomass (mt). Panel (D) indicates the landings (1000 lb whole weight) values that correspond to P*=35% for each year of the projection.
Appendix H. Initial Regulatory Flexibility Analysis

Introduction

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

With certain exceptions, the RFA requires agencies to conduct a regulatory flexibility analysis for each proposed rule. The regulatory flexibility analysis is designed to assess the impacts various regulatory alternatives would have on small entities, including small businesses, and to determine ways to minimize those impacts. In addition to analyses conducted for the RIR, the regulatory flexibility analysis provides: 1) A statement of the reasons why action by the agency is being considered; 2) a succinct statement of the objectives of, and legal basis for the proposed rule; 3) a description and, where feasible, an estimate of the number of small entities to which the proposed rule will apply; 4) a description of the projected reporting, record-keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirements of the report or record; 5) an identification, to the extent practical, of all relevant Federal rules which may duplicate, overlap, or conflict with the proposed rule; and, 6) a description of any significant alternatives to the proposed rule which accomplish the stated objectives of applicable statutes and which minimize any significant economic impact of the proposed rule on small entities.

Additional information on the description of affected entities may be found in Section 3.3, and additional information on the expected economic effects of the proposed action may be found in Chapter 4.

Statement of Need, Objectives of, and Legal Basis for the Rule

The purpose and need, issues, problems, and objectives of the proposed rule are presented in Section 1.4. The purpose of this proposed rule is to limit participation and effort in the commercial golden tilefish segment of the snapper grouper fishery; allocate the annual catch limit (ACL) between gear groups; and, modify or establish golden tilefish trip limits.

The need for this proposed rule is to reduce overcapacity in the golden tilefish portion of the snapper grouper fishery. This proposed rule would address issues that have arisen from a more stringent regulatory regime in the South Atlantic fisheries.
The Magnuson-Stevens Fishery Conservation and Management Act, as amended, provides the statutory basis for this proposed rule.

**Identification of All Relevant Federal Rules Which May Duplicate, Overlap or Conflict with the Proposed Rule**

No duplicative, overlapping, or conflicting Federal rules have been identified with this proposed rule.

**Description and Estimate of the Number of Small Entities to Which the Proposed Rule will Apply**

This proposed rule is expected to directly affect commercial fishers in the South Atlantic snapper grouper fishery. The SBA has established size criteria for all major industry sectors in the U.S. including fish harvesters. A business involved in fish harvesting is classified as a small business if it is independently owned and operated, is not dominant in its field of operation (including its affiliates), and has combined annual receipts not in excess of $4.0 million (NAICS code 114111, finfish fishing) for all its affiliated operations worldwide.

During 2005-2011, a total of 142 hook and line vessels with valid permits to operate in the commercial snapper grouper fishery landed golden tilefish. These vessels generated annual average dockside revenues of approximately $69,000 (2010 dollars) from golden tilefish, or $603,000 (2010 dollars) from all species, inclusive of golden tilefish, caught in the trip. On average then, each of these vessels generated about $4,246 in gross revenues. During the same period, a total of 43 longline vessels with valid permits to operate in the commercial snapper grouper fishery landed golden tilefish. Their annual average revenues were about $835,000 (2010 dollars) from golden tilefish, or $1,218,000 (2010 dollars) from all species, inclusive of golden tilefish, caught in the trip. Each of these vessels, therefore, generated an average of approximately $28,330 in gross revenues.

Based on revenue information, all commercial vessels affected by this proposed rule can be considered small entities.

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

The proposed rule would not introduce any changes to reporting, record-keeping, and other compliance requirements which are currently required.

**Substantial Number of Small Entities Criterion**
The proposed rule is expected to directly affect all Federally permitted commercial vessels harvesting golden tilefish in the South Atlantic snapper grouper fishery. All directly affected entities have been determined, for the purpose of this analysis, to be small entities. Therefore, it is determined that the proposed action will affect a substantial number of small entities.

**Significant Economic Impact Criterion**

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

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

All entities that are expected to be affected by this proposed rule are considered small entities, so the issue of disproportional effects on small versus large entities does not presently arise.

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

The proposed rule consists of the following:

- Limit golden tilefish effort through a golden tilefish longline endorsement program
- To receive a golden tilefish longline endorsement, the individual must have an average of 5,000 pounds gw golden tilefish caught (with longline gear) for the best 3 years within the period 2006 through 2011
- Establish an appeals process for the golden tilefish endorsement program starting on the effective date of the final rule; the Regional Administrator will review, evaluate, and render final decisions on appeals
- Allocate the golden tilefish commercial ACL as follows: 75% to the longline sector and 25% to the hook and line sector
- Allow transferability of endorsements upon implementation of the program
- Modify the golden tilefish commercial trip limit by removing the 300 pound gw trip limit when 75% of the ACL is taken
- Establish a golden tilefish commercial trip limit of 500 pounds gw for commercial fishermen who do not receive a longline endorsement; vessels with longline endorsements are not eligible to fish for this trip limit.

Establishing a longline endorsement system would limit the expansion of capital and effort in the longline sector. Because this sector is by far the dominant segment in the commercial harvest of golden tilefish, an endorsement system could extend the commercial fishing season, thereby providing the industry opportunities to remain profitable. However, unlike the case with a management system that assigns harvesting privileges to fishermen, an endorsement system would not eliminate the underlying incentive to “race to fish.” With this incentive remaining intact, effort and capital stuffing would continue to increase over time and eventually shorten the fishing season.
The proposed criterion for a longline endorsement would qualify 24 longline vessels and disqualify 19 longline vessels. Qualifying vessels generated revenues of about $788,000 (2010 dollars) annually from golden tilefish while non-qualifying vessels generated an average of about $47,000 (2010 dollars) in annual revenues from golden tilefish. The decrease in revenues to non-qualifying vessels would be about 17% of their total revenues. They could switch gear and recoup part of their losses; nonetheless, their short-term profits would still likely to suffer. However, relative to the total profits of commercial vessels in the snapper grouper fishery, revenue and profit reductions to non-qualifying vessels would not be significant. In terms of revenues, a loss of $47,000 would be about 3% of total revenues by vessels landing golden tilefish and less than 1% of total revenues by all commercial vessels in the South Atlantic. Moreover, losses to non-qualifying vessels would likely be gained by qualifying vessels. Considering the fishing season closures in recent years, qualifying vessels would most likely harvest whatever is forgone by non-qualifying vessels. This would increase the revenues and possibly profits of qualifying vessels and likely decrease the profits of non-qualifying vessels. Whether this would increase industry profits cannot be ascertained based on available information. It is possible that short-term industry profits would increase or at least not dissipate fast. With fewer participants in longline sector and noting that the longline sector is by far the dominant segment in the commercial harvest of golden tilefish, the fishing season for the longline sector could lengthen and thereby vessels could command better prices. These effects, however, would be transitory. The incentive to “race to fish” is still intact so that effort from qualifying vessels could increase in the medium- and long-term, eventually erasing any profit gains.

Establishing an appeals process for fishermen initially excluded from the golden tilefish longline endorsement would provide opportunities for those legitimately qualified to receive their endorsement. Given the narrow basis for appeals (e.g., landings reported on NMFS logbook records or state landing records), only a limited number of appeals would be successful.

Establishing a 75% longline and 25% hook and line allocation of the golden tilefish commercial ACL would ensure the continued presence of the hook and line sector in the commercial harvest of golden tilefish. Relative to the baseline, this allocation ratio would redistribute the harvest from the longline sector to the hook and line sector. This, in theory, would result in negative effects on the longline sector and positive effects on the hook and line sector. However, because the commercial quota is increased well above the baseline landings of both sectors, this allocation ratio would yield positive revenue effects to both sectors. Revenue gains would be $302,000 to the hook and line sector and $271,000 to the longline sector, or total revenue effects of about $573,000. It is very likely that these positive revenue effects would translate to positive profit effects on both sectors.

Allowing transferability of golden tilefish longline endorsement between individuals or entities with Unlimited Snapper Grouper Permits would open opportunities for increasing the value of the endorsement asset and for the more efficient operators to engage in the fishery. Such opportunities, however, would still be limited by the requirement that transfers of endorsements be made between individuals/entities possessing unlimited snapper grouper permits. These permits are now under a limited entry program.
Eliminating the 300-pound commercial trips limit when 75% of the commercial ACL is taken would benefit longline vessels. This ratcheting down of the trip limit was intended to preserve the presence of the hook and line sector, but it is now unnecessary because the hook and line sector has its own separate allocation. Thus, this alternative would allow the longline sector, whose trips would likely be unprofitable under a 300-pound gw trip limit, to efficiently use its capacity and maximize its revenues and possibly profits from its allocation.

Establishing a 500-pound trip limit for commercial fishermen who would not receive a longline endorsement would affect 14 out of 249 trips based on average 2005-2011 data. This trip limit would reduce landings by about 24,000 pounds gw worth $69,000 (2010 dollars). The effects of a trip limit are generally temporary--vessels incurring revenue reductions due to a trip limit could recoup their losses by taking more trips so long as those trips remain profitable. Considering the relatively few trips that would be affected, this trip limit would likely not be too constraining as to reduce the sector’s overall profits.

Description of Significant Alternatives

Two alternatives, including the preferred alternative that would establish an endorsement system, were considered for limiting participation in the golden tilefish component of the snapper grouper fishery through an endorsement system. The only other alternative is the no action alternative. This would not limit effort in the commercial harvest of golden tilefish and thus would not address the evolving derby in the commercial sector.

Two alternatives were considered for establishing eligibility requirements for the longline endorsement. The first alternative, the no action alternative, would make the endorsement system ineffective in addressing increasing effort in the commercial sector because everyone with valid permits could receive an endorsement. The second alternative consists of 9 sub-alternatives, including the preferred sub-alternative, with each providing for an endorsement eligibility based on minimum amount of landings using longline during a given period. The first sub-alternative would require a minimum of 2,000 lb gw total longline landings during 2006-2008. The second sub-alternative would require a minimum of 5,000 lb gw total longline landings during 2006-2008. The third sub-alternative would require a minimum of 5,000 lb gw average longline landings during 2006-2008. The fourth sub-alternative would require a minimum of 5,000 lb gw average longline landings during 2007-2009. The fifth sub-alternative would require a minimum of 10,000 lb gw average longline landings during 2007-2009. The sixth sub-alternative would require a minimum of 5,000 lb gw average longline landings for the best 3 years during 2006-2010. The seventh sub-alternative would require a minimum of 5,000 lb gw average longline landings for the best 3 years during 2006-2011. The eighth sub-alternative would require a minimum of 10,000 lb gw average longline landings for the best 3 years during 2006-2011. Each of these sub-alternatives would qualify fewer entities for the endorsement and thus would result in greater forgone revenues than the preferred sub-alternative.

Three alternatives, including the preferred alternative, were considered for establishing an appeals process for fishermen initially excluded from the endorsement program. The first alternative, the no action alternative, would not establish an appeals process. This alternative has
the potential to unduly penalize participants due mainly to some errors in data reporting or recording. The second alternative is the same as the preferred alternative, except that it would additionally establish a special board composed of state directors/designees that would review, evaluate, and make individual recommendations to the Regional Administrator. This alternative would mainly introduce additional administrative burden that may not improve the appeals process considering that the only major issue subject to appeals is the landings record.

Four alternatives, including the preferred alternative, were considered for allocating the commercial golden tilefish ACL among gear groups. The first alternative, the no action alternative, would not specify an allocation among gear groups. With this alternative, the already diminished share of the hook and line sector in the harvest of golden tilefish would further decline. Consequently, further reductions in the sector’s revenues and profits would occur, negating the Council’s intent to minimize economic impacts on this sector. The second alternative would establish an 85% longline and 15% hook and line allocation, and the third alternative, a 90% longline and 10% hook and line allocation. These two other alternatives would favor the longline sector, but would allow the hook and line sector to continue its operations. Similar to the preferred alternative, the effects of these alternatives on overall industry profits cannot be determined based on available information.

Two alternatives, including the preferred alternative, were considered for allowing transferability of longline endorsements. The first alternative, the no action alternative, would not allow transfers of endorsements. This alternative would tend to limit the value of the endorsement asset and hinder the participation of potentially more efficient operators. The second alternative (preferred) includes two sub-alternatives, of which one is the preferred sub-alternative that would allow transfers of endorsement upon implementation of the program. The only other sub-alternative would not allow transfers of endorsements during the first 2 years of the program. This sub-alternative would mainly delay the entrance of more efficient operators and the generation of higher-valued endorsement assets.

Three alternatives, including the preferred alternative, were considered for modifying the golden tilefish trip limit. The first alternative, the no action alternative, would retain the 4,000 lb gw trip limit that would be reduced to 300 lb gw trip limit when 75% of the commercial ACL is reached. The trip limit reduction to 300 lb gw, which was established to preserve the presence of the hook and line sector, is no longer necessary with the establishment of a separate allocation for each gear group. The second alternative would prohibit longline fishing for golden tilefish when 75% of the commercial ACL is reached. This alternative is not necessary with the establishment of a separate allocation for each gear group. In addition, this would only constrain the profits longline vessels could derive from the harvest of golden tilefish.

Six alternatives, including the preferred alternative, were considered for establishing a trip limit for fishermen who do not receive a longline endorsement. The first alternative, the no action alternative, would retain the 4,000 lb gw trip limit that would be reduced to 300 lb gw trip limit when 75% of the commercial ACL is reached. The second alternative would establish a 300 lb gw trip limit; the third alternative, a 400 lb gw trip limit; the fourth, a 100 lb gw trip limit; and, the fifth alternative, a 200 lb gw trip limit. Relative to the preferred alternatives, all these other
trip limits would be more restrictive and thus would likely result in larger reductions in vessel revenues and profits per trip.

The Council also considered four alternatives to adjust the golden tilefish fishing year for which they chose the no action alternative. The first alternative, the no action alternative, would retain the existing calendar year as the golden tilefish fishing year (January 1 through December 31). The second alternative would specify a fishing year of September 1 through August 31; the third alternative, August 1 through July 31; and, the fourth alternative, May 1 through April 30.
Appendix I. Regulatory Impact Review

Introduction

The NOAA Fisheries Service requires a Regulatory Impact Review (RIR) for all regulatory actions that are of public interest. The RIR does three things: (1) it provides a comprehensive review of the level and incidence of impacts associated with a proposed or final regulatory action; (2) it provides a review of the problems and policy objectives prompting the regulatory proposals and an evaluation of the major alternatives that could be used to solve the problem; and, (3) it ensures that the regulatory agency systematically and comprehensively considers all available alternatives so that the public welfare can be enhanced in the most efficient and cost-effective way. The RIR also serves as the basis for determining whether the proposed regulations are a “significant regulatory action” under the criteria provided in Executive Order (E.O.) 12866 and provides information that may be used in conducting an analysis of impacts on small business entities pursuant to the Regulatory Flexibility Act (RFA). This RIR analyzes the expected effects that this action would be expected to have on the commercial and recreational sectors of the snapper grouper fishery, with emphasis on the golden tilefish segment. Additional details on the expected economic effects of this action are included in Section 4 and are incorporated herein by reference.

Problems and Objectives

The purpose and need, issues, problems, and objectives of the proposed rule are presented in Section 1.4. The purpose of this proposed action is to limit participation and effort in the golden tilefish segment of the snapper grouper fishery; allocate the annual catch limit (ACL) between gear groups; and, modify or establish golden tilefish trip limits.

The need for the proposed action is to reduce overcapacity in the golden tilefish portion of the snapper grouper fishery. This proposed action would address issues that have arisen from a more stringent regulatory regime in the South Atlantic fisheries.

Methodology and Framework for Analysis

This RIR assesses management measures from the standpoint of determining the resulting changes in costs and benefits to society. Ideally, the net effects of the proposed measures should be expressed in terms of producer and consumer surplus. Absent the necessary information, the analysis considers mainly the revenue effects of the various measures. In addition, the public and private costs associated with the process of developing and enforcing regulations on fishing for snapper grouper in waters of the U.S. South Atlantic are provided.

Description of the Fishery

A description of the South Atlantic snapper grouper fishery, with particular reference to golden tilefish, is contained in Chapter 3 and is incorporated herein by reference.
Effects of Management Measures

Details on the economic effects of all alternatives are found in Chapter 4 and are included herein by reference. The following discussion focuses mainly on the expected effects of the preferred alternatives.

An endorsement system proposed under Alternative 2 (Preferred) of Action 1 would limit the number of commercial participants who harvest golden tilefish using longlines. Given the fact that the longline sector has accounted for over 90 percent of commercial landings of golden tilefish, an endorsement system for this sector would help in addressing overcapacity and effort expansion in the commercial sector. It is likely, however, that the effects of an endorsement system would be temporary. Unlike the case with a management system that assigns harvesting privileges to fishermen, an endorsement system would not eliminate the underlying incentive to “race to fish.” Effort and capital stuffing would continue to increase over time because eligible longline participants could still do it, especially if they perceive the endorsement system as a prelude to a catch share program. In addition, expansion of the hook and line sector could still occur. Perhaps, the best an endorsement can do is to prevent a surge in effort from other sources than those included in the longline endorsement and the hook and line sector. An endorsement coupled with a quota increase proposed in Regulatory Amendment 12 can do better in addressing overcapacity and delaying the development of a full derby than either alone. Together, they offer a higher likelihood of extending the fishing season and thereby providing opportunities for the industry to remain profitable. It should be recognized, however, that the combined effects of an endorsement and quota increase would be transitory. With the incentive to “race to fish” still intact, fishermen could adapt to the new quota and the endorsement system and increase their effort over time.

Of the 9 sub-alternatives for the longline endorsement, Sub-alternative 2h (Preferred) would allow for the most number of permit holders to qualify for the endorsement (23 out of 38 permit holders). Eligible permit holders employed 24 vessels that landed at least one pound of golden tilefish in any one year during 2005-2011. On average, eligible permitted vessels landed approximately 288,000 pounds gw of golden tilefish annually. These landings accounted for 94% of golden tilefish landings by all “longline” vessels (eligible and ineligible) and 75% of the eligible vessels’ landing of all species caught in the trip. Eligible vessels generated approximately $788,000 (in 2010 dollars) of revenues from golden tilefish. These revenues accounted for 94% of all revenues from golden tilefish by all “longline” vessels (eligible and ineligible) and 83% of the eligible vessels’ revenues from all species caught in the trip. Sub-alternative 2h (Preferred) would disqualify 15 (38 minus 23) permit holders from obtaining a longline endorsement. These permit holders employed 19 vessels that landed at least one pound of golden tilefish in any one year during 2005-2011. Ineligible permitted vessels landed approximately 18,000 pounds gw of golden tilefish which accounted for 6% of golden tilefish landings by all “longline” vessels (eligible and ineligible) and 11% of the ineligible vessels’ landing of all species caught in the trip. These ineligible vessels’ landing of golden tilefish generated approximately $47,000 in revenues which accounted for 6% of all “longline” vessel landings.

1 Vessels that caught golden tilefish also caught other species on the same trip and thereby also generated revenues from these other species.
revenues from golden tilefish and 17% of these vessels’ revenues from all species caught in the trip.

Ineligible vessels under **Sub-alternative 2h (Preferred)** would forgo annual revenues of about $47,000 (2010 dollars), the lowest forgone revenues among the sub-alternatives. It is possible these revenue losses would be very burdensome for some vessels. In the absence of sufficient information, it cannot be ascertained if these revenue reductions would result in significant profit reductions. Nonetheless, it would be relatively difficult for these vessels to recoup their revenue (and possibly profit) losses by increasing their fishing effort on other snapper grouper species as several recent regulations have restricted the harvest of other snapper grouper species. They could continue harvesting golden tilefish using other gear types such as hook and line, but it is unlikely they would totally recoup their losses.

Losses to non-qualifying vessels would not necessarily turn out as losses to the longline sector or to the commercial sector as a whole. The remaining longline participants have enough capacity to harvest whatever is given up by non-qualifying vessels. Because of recent closures that occurred in the commercial golden tilefish segment of the snapper grouper fishery, it is likely that qualifying vessels could recoup losses to non-qualifying vessels in the near future. This could likely happen even if the quota is raised (per Regulatory Amendment 12) because the longline sector appears to have the necessary capacity to increase its harvest of golden tilefish.

**Alternative 2 (Preferred) of Action 3** would establish an appeals process for fishermen initially excluded from the golden tilefish longline endorsement. This would provide opportunities for those legitimately qualified to receive their endorsement. Given the narrow basis for appeals (landings reported on NMFS logbook records or state landing records), only a limited number of appeals would be successful.

**Alternative 2 (Preferred) of Action 4** would establish a 75% longline and 25% hook and line allocation of the golden tilefish commercial ACL. Relative to the baseline, each allocation alternative would redistribute the harvest from the longline sector to the hook and line sector. This, in theory, would result in negative effects on the longline sector and positive effects on the hook and line sector. However, because the commercial quota is increased well above the baseline landings of both sectors, each allocation alternative would yield positive revenue effects to both sectors. The revenue effects to each sector would directly correlate with the size of its allocation—the higher a sector’s allocation the larger would be its revenue effects. Under **Alternative 2 (Preferred)**, revenue gains would be $302,000 to the hook and line sector and $271,000 to the longline sector, or total revenue effects of about $573,000.

**Alternative 2 (Preferred)**, together with **Sub-alternative 2a (Preferred)**, of **Action 5** would allow transferability of golden tilefish longline endorsement between individuals or entities with Unlimited Snapper Grouper Permits. Allowing transferability of longline endorsements would open opportunities for increasing the value of the endorsement asset and for the more efficient operators to engage in the fishery. Such opportunities, however, would still be limited by the requirement that transfers of endorsements be made between individuals/entities possessing unlimited snapper grouper permits. These permits are now under a limited entry program.
Alternative 1 (Preferred) of Action 6 would maintain the current fishing year for golden tilefish. This would not have any economic effects on fishing participants.

Alternative 2 (Preferred) of Action 7 would eliminate the 300-pound gw step-down commercial trip limit when 75% of the commercial ACL is taken. This ratcheting down of the trip limit was intended to preserve the presence of the hook and line sector, but it is now unnecessary because this sector has its own separate allocation. Thus, this alternative would allow the longline sector, whose trips would likely be unprofitable under a 300-pound gw trip limit, to efficiently use its capacity and maximize its revenues and possibly profits from its allocation.

Alternative 4 (Preferred) of Action 8 would establish a 500-pound trip limit for commercial fishermen who would not receive a longline endorsement. Based on average 2005-2011 commercial vessel trips that landed golden tilefish, this trip limit would affect 14 out of 249 trips and would reduce landings by about 24,000 pounds gw worth $69,000 (2010 dollars). The effects of a trip limit are generally temporary—vessels incurring revenue reductions due to a trip limit could recoup their losses by taking more trips so long as those trips remain profitable. Considering the relatively few trips that would be affected, this trip limit would likely not be too constraining as to reduce the sector’s overall profits.

Public and Private Costs of Regulations

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

Council costs of document preparation, meetings, public hearings, and information dissemination………………………………………………………………………. $200,000

NOAA Fisheries administrative costs of document preparation, meetings and review .......................................................... $100,000

Annual law enforcement costs .......................................................... unknown

TOTAL …………………………………………………………………………….. $300,000

Law enforcement currently monitors regulatory compliance in these fisheries under routine operations and does not allocate specific budgetary outlays to these fisheries, nor are increased enforcement budgets expected to be requested to address components of this action. In practice, some enhanced enforcement activity might initially occur while the fishery becomes familiar with the new regulations. However, the costs of such enhancements cannot be forecast. Thus, no specific law enforcement costs can be identified.
Determination of Significant Regulatory Action

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

The Magnuson-Stevens Fishery Conservation and Management Act requires a FIS be prepared for all amendments to Fishery Management Plans (FMPs). The FIS contains an assessment of the likely biological and socioeconomic effects of the conservation and management measures on: 1) fishery participants and their communities; 2) participants in the fisheries conducted in adjacent areas under the authority of another Fishery Management Council; and 3) the safety of human life at sea.

Actions Contained in Amendment 18B to the FMP for the Snapper Grouper Fishery of the South Atlantic Region

The South Atlantic Fishery Management Council (South Atlantic Council) is concerned that regulations implementing several recent snapper grouper amendments could increase the incentive to fish for golden tilefish. Therefore, the South Atlantic Council is proposing management measures that would limit participation in the golden tilefish commercial sector of the snapper grouper fishery.

Actions in Amendment 18B to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (Amendment 18B) consider alternatives that would:

1. Limit Participation in the Golden Tilefish Portion of the Snapper Grouper Fishery
2. Establish Initial Eligibility Requirements for a Golden Tilefish Longline Endorsement
3. Establish an Appeals Process
4. Allocate Commercial Golden Tilefish Quota Among Gear Groups
5. Allow for Transferability of Golden Tilefish Endorsements
6. Adjust Golden Tilefish Fishing Year
7. Modify the Trip Limit for Fishermen Who Receive a Golden Tilefish Longline Endorsement
8. Establish Trip Limits for Fishermen Who Do Not Receive a Golden Tilefish Longline Endorsement

Assessment of Biological Effects

The action to establish an endorsement program for the longline sector is expected to have positive biological effects. Longline gear is more efficient than hook-and-line gear in capturing golden tilefish. Yet, allowing more efficient gear to capture golden tilefish would not be expected to negatively impact the stock since annual catch limits (ACLs) and accountability measures (AMs) are in place to prevent overfishing. Furthermore, a longline endorsement could slow the rate the golden tilefish ACL is met and help prevent overages, thus having biological benefits. Currently anyone with a commercial snapper grouper permit can use longline gear. Thus, capping the number of individuals who can use longline gear could have positive biological impacts to the environment. The fewer the number of longline endorsements issued, the greater the biological benefit because less gear would likely be deployed. If this were the case, then biological benefits could be expected for golden tilefish and the chance of interactions with protected species could be reduced. The South Atlantic Council is proposing issuing 23 longline endorsements.
This is the largest number of endorsements under the considered alternatives; however, it is less than the total number of vessels (n = 43) landing golden tilefish with longline gear during 2005-2011. It is also possible that effort with longline gear would remain the same regardless of the number of vessels fishing.

Establishing an appeals process whereby fishermen could dispute their eligibility to receive a longline endorsement and specifying transferability criteria for the endorsements is an administrative action that would not have an impact on the biological environment.

The South Atlantic Council considered several alternatives to apportion the total commercial ACL to the longline and hook-and-line sectors. It is likely that the commercial ACL would be met regardless of how it is divided between the gear sectors. Allocating a greater percentage of the commercial golden tilefish ACL to the hook-and-line sector could be expected to have a greater biological benefit since the commercial ACL would be met more slowly than with longline gear. The preferred alternative would allocate the largest percentage of the commercial ACL to the hook-and-line sector, thereby diminishing any negative biological impacts.

While there is little biological benefit to changing the fishing year, a shift in the fishing year would allow hook-and-line fishermen to target golden tilefish in the fall. However, a change in the fishing year would also result in multiple species being open at the same time, thus increasing negative impacts to the biological environment. Leaving the fishing year unchanged and addressing seasonal availability of golden tilefish through gear sector allocations (Action 4) would diminish negative biological impacts. However, Preferred Alternative 1 (No Action) would continue to open the fishing season before the start of the spawning season thus reducing positive biological effects.

As a derby fishery has developed for golden tilefish in recent years and the ACL has been met very rapidly, the 300-pound gutted weight (gw) trip limit has not had the intended effect of providing hook-and-line fishermen access to golden tilefish in the fall. The advantage of such a step-down is that it can slow the rate at which the commercial ACL is filled and decrease the chance of an ACL overage. However, during 2010 and 2012, golden tilefish were being harvested so quickly that the landings could not be tracked accurately. As a result, an overage of the ACL occurred and the 300-pound gw trip limit was not triggered. Furthermore, access to the resource by hook-and-line fishermen is being addressed through separate ACLs for each gear sector (Action 4), hence making the 300-pound gw trip limit step-down unnecessary.

To moderate the rate at which the hook-and line commercial ACL is met, trip limit alternatives were considered. Alternatives with more restrictive trip limits would be expected to have greater biological effects for golden tilefish as they would likely constrain the overall harvest. However, golden tilefish are not overfished and are not experiencing overfishing. Furthermore, ACL and AMs are in place to prevent overfishing from occurring. Thus, there is not a biological need for a more restrictive trip limit than the proposed 500 pound gw trip limit.
Assessment of Economic Effects

The longline sector has dominated commercial landings of golden tilefish since the early 1980s. The proposed endorsement system for this sector would help to address overcapacity and effort expansion in the commercial sector. The endorsement coupled with a quota increase, as proposed in Regulatory Amendment 12 to the FMP for the Snapper Grouper Fishery of the South Atlantic Region (Regulatory Amendment 12) can better address overcapacity and forestall a derby than either measure alone. However, the effects of an endorsement system, even if combined with a quota increase, would likely be transitory. Unlike a management system, such as a catch share program, endorsements would not eliminate the incentive to “race to fish”. This could result in fishermen adapting to the new quota and the endorsement system and increasing their effort over time. Effort increases and capital stuffing could even intensify if fishermen perceive the endorsement system as a prelude to a catch share program.

The proposed eligibility requirement for obtaining a longline endorsement would qualify 23 permit holders and disqualify 15 permit holders. Losses to non-qualifying permit holders would not necessarily turn out as losses to the longline sector or to the commercial sector as a whole, however, since the remaining longline participants have enough capacity to harvest whatever amount the non-qualifying vessels have to give up. Because of recent closures in the commercial golden tilefish segment of the snapper grouper fishery, it is likely that qualifying vessels could recoup losses to non-qualifying vessels in the near future. This could likely happen even if the quota is raised (as proposed in Regulatory Amendment 12) because the longline sector appears to have the necessary capacity to increase its harvest of golden tilefish.

The number of appeals received largely determines the economic impacts of an appeals program. Fishermen excluded from the endorsement program who decide to appeal may incur costs associated with trying to prove their case. However, access to NMFS’ logbook landings or state trip tickets should be at little or no cost to a fisherman. Some complications may arise in the case of transferred permits for the new permit where the new owner may not have access to NMFS’ logbook landings for the previous owner. Access to state trip tickets in this situation would depend on the respective state’s rule on access to trip ticket information.

Decreasing the commercial allocation for the longline sector and increasing it for the hook-and-line sector would, in theory, have negative effects on the longline sector and positive effects on the hook-and-line sector. However, because the commercial ACL will increase (if Regulatory Amendment 12 is approved by the Secretary) well above the baseline landings of both sectors, each allocation alternative, including the proposed alternative, would yield positive revenue effects to both sectors.

Allowing transferability of longline endorsements would open opportunities for increasing the value of the endorsement asset and for the more efficient operators to engage in the fishery. Such opportunities, however, would still be limited by the requirement that transfers of endorsements be made between individuals/entities.
possessing unlimited snapper grouper permits. These permits are now under a limited entry program.

Retaining the current January-December fishing year would make golden tilefish available to dealers during January-May, when other snapper grouper species are closed. This could increase the dockside price paid to fishermen for golden tilefish. Even if dockside prices do not increase in the early part of the year, keeping the start date at January 1 could help dealers maintain supply and therefore keep customers.

In recent years, harvest of golden tilefish has been so rapid that it was not possible to track commercial harvests with the existing NMFS quota monitoring program, and thus the 300-pound gw step-down trip limit was not triggered before the fishing season was closed. An increase in the ACL (as proposed in Regulatory Amendment 12) alone would likely not alleviate the situation especially in the medium term because there is enough capacity to harvest the new ACL. Removing of the 300-pound gw trip limit when 75% of the ACL is taken would likely make the situation worse. Moreover, large longline harvests, as would occur under the preferred alternative, would tend to glut the market even after 75% of the commercial ACL is taken. This would reduce the prices that hook-and-line fishermen and longline fishermen would receive. Understandably, this market glut would also occur before 75% of the commercial ACL is taken. It is noted, however, that removing the 300-pound gw trip limit would allow the longline sector to efficiently use its capacity and maximize its revenues and possibly profit from its allocation.

Based on 2005-2011 average landings and revenues of hook-and-line vessels and longline vessels excluded from the endorsement system, the proposed trip limit would reduce vessel revenues by about $69,000. A trip limit may be considered to have relatively short-term effects. A vessel that incurs revenue reductions due to a trip limit may recoup its losses by taking more trips as long as those trips are still profitable. A relatively high trip limit, such as is being proposed, would likely remain profitable for hook-and-line vessels. This trip limit would affect only 14 trips out of the 2005-2011 average of 249 trips. It is then likely that the proposed trip limit would not prevent the commercial hook-and-line ACL from being fully harvested.

**Assessment of Social Effects**

Although the proposed establishment of a longline endorsement would not limit total golden tilefish harvest, restricting participation may affect the total amount of golden tilefish harvested as well as change product flow through the various communities and dealers. If the more significant harvesters receive endorsements, total volume and the communities where most golden tilefish are landed should not be affected. Therefore, the proposed endorsement system should preserve, and possibly increase, the social benefits to the more active producers and dealers, and associated communities. However, some communities and dealers as well as the fishermen who do not receive an endorsement, could experience reduced social and economic benefits unless fishermen land in multiple ports and sell to multiple dealers in the same city.
Typically, the fewer the eligible individuals, the more likely negative social impacts could result due to a diminished golden tilefish harvest. Under this assumption, the proposed eligibility criteria to qualify for a longline endorsement would have the least negative social impact by allocating endorsements to the most fishermen. However, under any allocation scenario, fishermen who receive an endorsement would be expected to benefit due to less competition in fishing and in the markets.

The likelihood that one or more qualifying vessels would not receive an endorsement would increase in the absence of an appeals process, resulting in less social benefits than would result if an appeals process is established.

The proposed 75/25 allocation of the commercial ACL between the longline and hook-and-line sectors, respectively, would not be consistent with the recent performance of this component of the snapper grouper fishery. The majority of permits that would receive longline endorsements under the proposed alternative are from Florida. Therefore, those alternatives that allocate a larger portion of the ACL to the hook-and-line sector would likely have positive social benefits for individuals with federal South Atlantic Unlimited Snapper Grouper Permits in the other South Atlantic states. The proposed allocation would provide greater assurance than the other alternatives considered that fishermen from all states would be able to fish for golden tilefish during periods of the year when the weather and economic conditions are favorable.

Generally, social and economic benefits are expected to be greater when individuals are given more freedom to manage their assets (i.e., to sell the endorsement without time constraints). This is particularly true in situations where a decision to stop fishing is not discretionary, as may be the case should an adverse health situation or personal financial crisis arise. Therefore, to the extent that a reduced ability to transfer endorsements results in reduced benefits, the longer the restriction on transferring endorsements applies, the greater the expected reduction in social benefits. Hence, the proposed transferability option is expected to result in positive social impacts.

Because no changes to the fishing year are being proposed, no changes in the manner in which the golden tilefish component of the snapper grouper fishery is prosecuted would be expected and, as a result, no changes in the current social benefits of the snapper grouper fishery would be expected to occur.

Elimination of the step-down trip limit would be expected to accelerate quota closure of the fishery by not reducing the pace of harvest. The magnitude of impact of accelerated quota closure on hook-and-line fishermen would depend on how harvests are affected by the proposed endorsement requirement. Nevertheless, in tandem with the other proposed golden tilefish management changes, it is expected that the elimination of the 300-pound gw step-down trip limit would result in positive social impacts.

The proposed 500-pound gw trip limit for fishermen who do not receive a longline endorsement would be the most beneficial to vessels with South Atlantic Unlimited Snapper Grouper Permits. Although lower trip limits may contribute to a longer fishing
season, the more restrictive limits may cause some vessels to target other species to increase the economic efficiency of fishing trips.

**Assessment of Effects on Safety at Sea**

The proposed changes to management of the golden tilefish component of the snapper grouper fishery are not expected to change the level of safety at sea. Unlike a catch-share program that provides harvesting privileges to qualified participants, an endorsement system would not eliminate the underlying incentive to “race to fish”, thereby diminishing the level of safety at sea.