



**Amendment 20A
to the Fishery Management Plan for the Snapper Grouper Fishery
of the South Atlantic Region**

**with Environmental Assessment, Regulatory Flexibility Act Analysis, Regulatory Impact
Review, and Fishery Impact Statement**

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ABBREVIATIONS AND ACRONYMS

ABC	Acceptable Biological Catch
ACCSP	Atlantic Coastal Cooperative Statistics Program
ACL	Annual Catch Limits
APA	Administrative Procedures Act
ASMFC	Atlantic States Marine Fisheries Commission
CEA	Cumulative Effects Analysis
CEQ	Council on Environmental Quality
CPUE	Catch per unit effort
CZMA	Coastal Zone Management Act
DBSRA	Depletion-Based Stock Reduction Analysis
DCAC	Depletion-Corrected Average Catch
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EFH	Essential Fish Habitat
EFH HAPC	Essential Fish Habitat - Habitat Area of Particular Concern
ESA	Endangered Species Act of 1973
FMP	Fishery management plan
FMU	Fishery management unit
FONSI	Finding of No Significant Impact
GMFMC	Gulf of Mexico Fishery Management Council
IFQ	Individual fishing quota
ITQ	Individual transferable quota
MARMAP	Marine Resources Monitoring Assessment and Prediction Program
MBTA	Migratory Bird Treaty Act
MMPA	Marine Mammal Protection Act of 1972
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NEPA	National Environmental Policy Act of 1969
NMFS	National Marine Fisheries Service
NMSA	National Marine Sanctuary Act
NOAA	National Oceanic and Atmospheric Administration
OY	Optimum Yield
RFA	Regulatory Flexibility Act
RIR	Regulatory Impact Review
SAFE Report	Stock Assessment and Fishery Evaluation Report
SAMFC	South Atlantic Fishery Management Council
SEDAR	Southeast Data Assessment and Review
SEFSC	Southeast Fisheries Science Center
SERO	Southeast Regional Office
SFA	Sustainable Fisheries Act
SSC	Scientific and Statistical Committee
TAC	Total allowable catch
USCG	U.S. Coast Guard

**Amendment 20A to the Fishery Management Plan for the
Snapper Grouper Fishery of the South Atlantic Region with Environmental
Assessment, Regulatory Flexibility Act Analysis, Regulatory Impact Review, and
Fishery Impact Statement**

Proposed actions:	Define and revert inactive wreckfish shares. Redistribute reverted shares to remaining shareholders. Establish a cap on the number of shares a single entity may own. Establish an appeals process for redistribution of shares.
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ABSTRACT

Amendment 20A to the Fishery Management Plan (FMP) for the Snapper Grouper Fishery of the South Atlantic Region consists of regulatory actions that focus on modifications to the wreckfish individual transferable quota (ITQ) program. The wreckfish stock is not undergoing overfishing and the overfished status is unknown. The Comprehensive Annual Catch Limit (ACL) Amendment proposes an ACL for wreckfish of 250,000 pounds whole weight (ww). The South Atlantic Council subsequently revised this value because of a revised allowable catch (ABC) recommendation they received from their Scientific and Statistical Committee. The revised ACL of 235,000 pounds (ww) was proposed to the public via an amended proposed rule. If the Comprehensive ACL Amendment is approved, 95% of the ACL would be allocated to the commercial sector. The purpose of Amendment 20A is to identify and revert inactive wreckfish shares for redistribution among remaining shareholders and establish a share cap and an appeals process. The primary actions are necessary to achieve the optimum yield from the commercial wreckfish sector in accordance with National Standard 1 of the Reauthorized Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), which result in a more efficient use of the species as supported by National Standard 5. Establishment of a share cap is necessary to comply with requirements for limited access privilege programs under Section 303A of the Magnuson-Stevens Act, and establishment of an appeals process, with a percentage of shares as a set-aside, will allow for shareholders to dispute share reversion or redistribution, if necessary. The intended effects of Amendment 20A is to promote the management provisions of the Snapper Grouper FMP and to allow commercial fishermen with wreckfish shares to maximize harvest potential within the constraints of the ACL, if approved.

The Environmental Assessment analyzes the effects of implementing the proposed actions listed above.

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Appendix I. Essential Fish Habitat and Move to Ecosystem Based Management

SNAPPER GROUPER AMENDMENT 20A PREFERRED ALTERNATIVES

ACTION 1: Define and revert inactive wreckfish shares.

Preferred Alternative 3: Define inactive shares as shares belonging to any ITQ shareholder who has not reported wreckfish landings between April 16, 2006, and January 14, 2011, and revert inactive shares for redistribution among active shareholders.

ACTION 2: Redistribute reverted shares to remaining shareholders.

Preferred Alternative 3: Redistribute reverted shares to remaining shareholders based on landings history.

Preferred Option b: total wreckfish landings from April 16, 2006, through January 14, 2011.

ACTION 3: Establish a share cap.

Preferred Alternative 4: Establish a share cap as 49% of the total shares.

ACTION 4: Establish an appeals process.

Preferred Alternative 2: A percentage of the wreckfish shares for fishing year 2012/2013 will be set-aside to resolve appeals for a period of 90-days starting on the effective date of the final rule. The Regional Administrator will review, evaluate, and render final decisions on appeals. Hardship arguments will not be considered. The Regional Administrator will determine the outcome of appeals based on NMFS' logbooks. If NMFS' logbooks are not available, the Regional Administrator may use state landings records. Appellants must submit NMFS' logbooks or state landings records to support their appeal. After the appeals process has been terminated, any amount remaining from the set-aside will be distributed back to remaining ITQ shareholders according to the redistribution method selected under Action 2.

Preferred Sub-alternative 2b: 5% of wreckfish shares will be set aside for appeals.

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1 Introduction

1.1 Background

Management of the federal snapper grouper fishery located off the South Atlantic in the 3-200 nautical mile (nm) U.S. Exclusive Economic Zone (EEZ) is conducted under the Fishery Management Plan (FMP) for the Snapper Grouper fishery of the South Atlantic Region (Snapper Grouper FMP; SAFMC 1983) (**Figure 1-1**). The FMP and its amendments are developed under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), other applicable federal laws, and executive orders (E.O.s) and affect the management of 73 species (**Table 1-1**). The purpose of the FMP, as amended, is to manage the snapper grouper fishery for optimum yield (OY) and to allocate harvest among user groups while preventing overfishing and conserving marine resources.

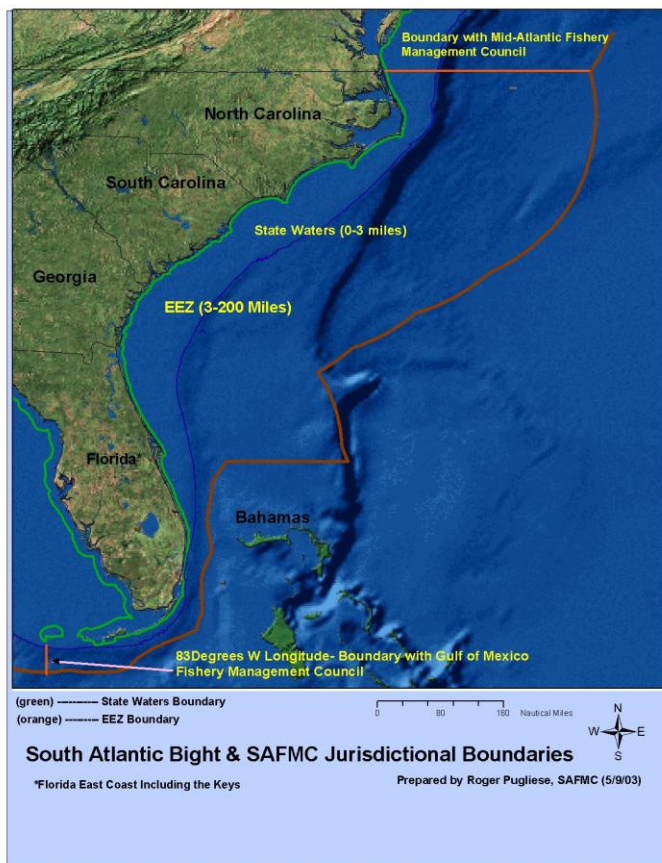


Figure 1-1. Jurisdictional boundaries of the South Atlantic Fishery Management Council.

Table 1-1. The South Atlantic Snapper Grouper complex.

Almaco jack, <i>Seriola rivoliana</i>	Puddingwife, <i>Halichoeres radiatus</i>
Atlantic spadefish, <i>Chaetodipterus faber</i>	Queen snapper, <i>Etelis oculatus</i>
Banded rudderfish, <i>Seriola zonata</i>	Queen triggerfish, <i>Balistes vetula</i>
Bank sea bass, <i>Centropristis ocyurus</i>	Red grouper, <i>Epinephelus morio</i>
Bar jack, <i>Carangoides ruber</i>	Red hind, <i>Epinephelus guttatus</i>
Black grouper, <i>Mycteroperca bonaci</i>	Red porgy, <i>Pagrus pagrus</i>
Black margate, <i>Anisotremus surinamensis</i>	Red snapper, <i>Lutjanus campechanus</i>
Black sea bass, <i>Centropristis striata</i>	Rock hind, <i>Epinephelus adscensionis</i>
Black snapper, <i>Apsilus dentatus</i>	Rock Sea Bass, <i>Centropristis philadelphica</i>
Blackfin snapper, <i>Lutjanus buccanella</i>	Sailors choice, <i>Haemulon parra</i>
Blue runner, <i>Caranx crysos</i>	Sand tilefish, <i>Malacanthus plumieri</i>
Blueline tilefish, <i>Caulolatilus microps</i>	Saucereye porgy, <i>Calamus calamus</i>
Bluestriped grunt, <i>Haemulon sciurus</i>	Scamp, <i>Mycteroperca phenax</i>
Coney, <i>Cephalopholis fulva</i>	Schoolmaster, <i>Lutjanus apodus</i>
Cottonwick, <i>Haemulon melanurum</i>	Scup, <i>Stenotomus chrysops</i>
Crevale jack, <i>Caranx hippos</i>	Sheepshead, <i>Archosargus probatocephalus</i>
Cubera snapper, <i>Lutjanus cyanopterus</i>	Silk snapper, <i>Lutjanus vivanus</i>
Dog snapper, <i>Lutjanus jocu</i>	Smallmouth grunt, <i>Haemulon chrysargyreum</i>
French grunt, <i>Haemulon flavolineatum</i>	Snowy grouper, <i>Epinephelus niveatus</i>
Gag, <i>Mycteroperca microlepis</i>	Spanish grunt, <i>Haemulon macrostomum</i>
Golden tilefish, <i>Lopholatilus chamaeleonticeps</i>	Speckled hind, <i>Epinephelus drummondhayi</i>
Goliath grouper, <i>Epinephelus itajara</i>	Tiger grouper, <i>Mycteroperca tigris</i>
Grass porgy, <i>Calamus arctifrons</i>	Tomtate, <i>Haemulon aurolineatum</i>
Gray (mangrove) snapper, <i>Lutjanus griseus</i>	Yellow jack, <i>Carangoides bartholomaei</i>
Gray triggerfish, <i>Balistes caprisus</i>	Yellowedge grouper, <i>Epinephelus flavolimbatus</i>
Graysby, <i>Cephalopholis cruentata</i>	Yellowfin grouper, <i>Mycteroperca venenosa</i>
Greater amberjack, <i>Seriola dumerili</i>	Yellowmouth grouper, <i>Mycteroperca interstitialis</i>
Hogfish, <i>Lachnolaimus maximus</i>	Yellowtail snapper, <i>Ocyurus chrysurus</i>
Jolthead porgy, <i>Calamus bajonado</i>	Vermilion snapper, <i>Rhomboplites aurorubens</i>
Knobbed porgy, <i>Calamus nodosus</i>	Warsaw grouper, <i>Epinephelus nigritus</i>
Lane snapper, <i>Lutjanus synagris</i>	White grunt, <i>Haemulon plumieri</i>
Lesser amberjack, <i>Seriola fasciata</i>	Whitebone porgy, <i>Calamus leucosteus</i>
Longspine porgy, <i>Stenotomus caprinus</i>	Wreckfish, <i>Polyprion americanus</i>
Mahogany snapper, <i>Lutjanus mahogoni</i>	
Margate, <i>Haemulon album</i>	
Misty grouper, <i>Epinephelus mystacinus</i>	
Mutton snapper, <i>Lutjanus analis</i>	
Nassau grouper, <i>Epinephelus striatus</i>	
Ocean triggerfish, <i>Canthidermis sufflamen</i>	
Porkfish, <i>Anisotremus virginicus</i>	

When the wreckfish individual transferable quota (ITQ) program was implemented in 1992, the total allowable catch was set at 2 million pounds whole weight (ww). The wreckfish portion of the snapper grouper fishery has changed significantly over the last two decades. For many years, there were 25 shareholders but less than a handful of active participants (i.e., shareholders with commercial wreckfish landings). From fishing years 2001/2002 through 2008/2009, landings averaged around 172,000 pounds (ww), but increased to more than 216,000 and 257,000 pounds (ww) in the past two fishing years (2009/2010 and 2010/2011), respectively. Commercial landings in 2010/2011 were the highest since the 1996/1997 fishing year. The number of permitted fishermen landing wreckfish has also increased slightly in the last two fishing seasons, though the number of shareholders has decreased to 20. While the effort of active shareholders account for all of the landings, their ITQ shares represent about 70% of the total shares.

Based on the recommendation for the allowable biological catch (ABC) from the Scientific and Statistical Committee (SSC), the proposed 2012 annual catch limit (ACL) was 250,000 pounds (ww) under the Comprehensive ACL Amendment (SAFMC 2011). The South Atlantic Fishery Management Council (South Atlantic Council) approved the Comprehensive ACL Amendment for final review in September 2011. In November 2011, NOAA Fisheries Service Southeast Regional Office (SERO) staff presented a depletion-corrected average catch analysis (DCAC) of the wreckfish population to the SSC (**Appendix G**). A subcommittee of the SSC was formed during the meeting to review the analysis with SERO staff and determine the appropriateness of the current runs as well as evaluate the need for additional runs. As a result, the subcommittee produced a report which included three additional runs (**Appendix H**), and concluded that two alternative analyses were equally valid, and had complementary strengths and weaknesses. Following the subcommittee's conclusions, the SSC recommended an ABC value for wreckfish of 235,000 pounds (ww) by averaging the two values.

The South Atlantic Council reviewed the recommended ABC value in December 2011 and passed a motion to concur with the process of adjusting the wreckfish ACL to reflect the ABC value of 235,000 pounds (ww). If approved, the 2012 commercial ACL would be 223,250 pounds (ww) because the recreational sector would be allocated 5% of the wreckfish ACL under actions proposed in the Comprehensive ACL Amendment. With this significant reduction in the commercial sector's allocation, the annual allocation each shareholder would receive under the proposed ACL would also be reduced by approximately 89%. Thus, active shareholders, captains, crew, and dealers who depend on a certain level of wreckfish production to maintain their operations would be particularly affected by the proposed reduction in the amount of wreckfish the sector may harvest.

1.2 Purpose and Need

The purpose of Amendment 20A is to identify and revert inactive wreckfish shares for redistribution among remaining shareholders and establish a share cap and appeals process. The primary actions are necessary to achieve the optimum yield from the commercial wreckfish sector in accordance with National Standard 1 of the Magnuson-Stevens Act, which results in a more efficient use of the species as supported by National Standard 5. Establishment of a share cap is necessary to comply with requirements for limited access privilege programs under Section 303A of the Magnuson-Stevens Act, and establishment of

an appeals process, with a percentage of shares as a set-aside, will allow shareholders to dispute share reversion or redistribution, if necessary. The intended effects of Amendment 20A is to promote the management provisions of the Snapper Grouper FMP and to allow commercial fishermen with wreckfish shares to maximize harvest potential within the constraints of the ACL (223,250 pounds (ww)), if approved.

1.3 Management Objectives

Objectives of the Snapper Grouper FMP, as modified by Amendment 8 to the Snapper Grouper FMP (SAFMC 1996) and Amendment 17A to the Snapper Grouper FMP (SAFMC 2010) are shown below:

- Prevent overfishing.
- Collect necessary data.
- Promote orderly utilization of the resource.
- Provide for a flexible management system.
- Minimize habitat damage.
- Promote public compliance and enforcement.
- Mechanism to vest participants.
- Promote stability and facilitate long-run planning.
- Create market-driven harvest pace and increase product continuity.
- Minimize gear and area conflicts among fishermen.
- Decrease incentives for overcapitalization.
- Prevent continual dissipation of returns from fishing through open access.
- Evaluate and minimize localized depletion.
- End overfishing of snapper grouper stocks undergoing overfishing.
- Rebuild stocks declared overfished.

1.4 History of Management

The wreckfish fishery is managed as part of the South Atlantic snapper grouper fishery. The Snapper Grouper FMP was implemented in 1983 and wreckfish was added to the fishery management unit (FMU) in 1990 under an emergency rule, and then in Amendment 3 (SAFMC 1990) under a comprehensive management program for wreckfish. In 1992, Amendment 5 to the Snapper Grouper FMP (SAFMC 1991) implemented the ITQ program for the commercial wreckfish sector of the snapper grouper fishery. If approved, the Comprehensive ACL Amendment (SAFMC 2011) would implement a commercial wreckfish ACL of 223,250 pounds (ww) and a recreational wreckfish ACL of 11,750 pounds (ww).

Under the Magnuson-Stevens Act, the South Atlantic Council is required to specify overfishing limits (OFLs), ACLs, and accountability measures (AMs). As part of this process, the Scientific and Statistical Committee (SSC) recommends an allowable biological catch (ABC) for a stock to the South Atlantic Council, which is used to specify the ACL. The South Atlantic Council's SSC met in April 2010 to discuss ABC Control Rules for unassessed species, including wreckfish. After extensive discussion of wreckfish issues, the SSC established that ABC was unknown and that the South Atlantic Council should consider an ACL that did not exceed 200,000 pounds. The SSC discussed setting an ABC for wreckfish during their August 2010 meeting. The SSC agreed the 2001 assessment

(Vaughan et al. 2001) was too old to be used and did not apply to current landings and conditions. The SSC concluded that a control rule based on catch-only data should be used even though a stock assessment exists for wreckfish (see Vaughan et al. 2001).

The SSC reasoned that, in the absence of a current assessment, using a catch-only scenario at “moderate” historical catch would place the stock in jeopardy of undergoing overfishing if catches were to increase. Therefore, in September 2010 the SSC recommended setting the ABC at the average historical catch (1997-recent) of 250,000 pounds (ww). Due to confidentiality of data, a more precise level could not be set. This level of harvest would cap the fishery at its current level and would be consistent with the “moderate” level of historical catch in Methot’s table for catch-only scenarios. See the Comprehensive ACL Amendment (SAFMC 2011) for a detailed description of the process used to set the wreckfish ACL of 250,000 pounds (ww).

As described in **Section 1.1**, based on a new analysis, the SSC recommended an ABC of 235,000 pounds (ww) in November 2011. The South Atlantic Council concurred with the SSC recommendation and amended the proposed ACL based on the revised ABC value for the wreckfish ABC in December 2011. See the amended proposed rule for a detailed description of the process used to set the 235,000 pounds (ww) wreckfish ACL, and the Comprehensive ACL Amendment (SAFMC 2011) for a description of the ABC control rule.

Table 1-2 includes a history of management that affected the wreckfish portion of the snapper grouper fishery. For a complete history of management for the entire snapper grouper fishery, see the Comprehensive ACL Amendment (SAFMC 2011).

Table 1-2. History of management for the wreckfish fishery of the South Atlantic Region.

Document	Date Effective	Proposed Rule Final Rule	Major Actions for Wreckfish
Snapper Grouper FMP	8/31/83	PR: 48 FR 26843 FR: 48 FR 39463	<ul style="list-style-type: none"> - Provisions to prevent growth overfishing in thirteen species in the snapper grouper complex. - Established a procedure for preventing overfishing in other species. - Harvest and gear limitations.
Notice of Control Date	9/24/90	55 FR 39039	<ul style="list-style-type: none"> - 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.
Emergency Rule	8/3/90	55 FR 32257	<ul style="list-style-type: none"> - Added wreckfish to the FMU. - Wreckfish fishing year beginning 4/16/90. - Wreckfish commercial quota of 2 million pounds. - Wreckfish commercial trip limit of 10,000 pounds per trip.

Fishery Closure Notice	8/8/90	55 FR 32635	- Wreckfish 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	1/31/91	PR: 55 FR 39023 FR: 56 FR 2443	<ul style="list-style-type: none"> - 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 of each calendar year. - 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. - Provided for annual adjustments of wreckfish management measures.
Amendment 4	1/1/92	PR: 56 FR 29922 FR: 56 FR 56016	<ul style="list-style-type: none"> - 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 & for-hire) and specified data collection regulations. - Established an assessment group and annual adjustment procedure (framework).)
Amendment 5	4/6/92	PR: 56 FR 57302 FR: 57 FR 7886	<ul style="list-style-type: none"> - Established limited entry system for Wreckfish with ITQs. - Required dealer to have permit; rescinded 10,000 lb. trip limit. - Implemented off-loading requirements. - Established procedure for initial distribution of percentage shares of TAC.

Amendment 8	8/17/98	PR: 63 FR 1813 FR: 63 FR 38298	<ul style="list-style-type: none"> - Established program to limit initial eligibility for snapper grouper fishery. - Granted transferable snapper grouper permit with unlimited landings if vessel landed \geq 1,000 pounds of snapper grouper species in any of the years. - Granted non-transferable permit with 225 lb. trip limit to all other vessels that had at least one landing of snapper grouper in any of the years. - Modified problems, objectives, OY, and overfishing definitions.
Emergency Action	9/3/99	64 FR 48326	-Reopened the Amendment 8 permit application process.
Amendment 10	7/14/00	PR: 64 FR 37082 and 64 FR 59152 FR: 65 FR 37292	- Identified essential fish habitat (EFH) and established habitat areas of particular concern (HAPCs) for species in the Snapper Grouper FMU.
Amendment 11	12/02/99	PR: 64 FR 27952 FR: 64 FR 59126	<ul style="list-style-type: none"> - MSY proxy. - Overfished/overfishing evaluations. - Approved definitions for overfished and overfishing. $(MSST = [(1-M) \text{ or } 0.5 \text{ whichever is greater}] * B_{MSY}; MFMT = F_{MSY})$
Amendment 12	9/22/00	PR: 65 FR 35877 FR: 65 FR 51248	- Modified management options and list of possible framework actions.
Amendment 13A	4/26/04	PR: 68 FR 66069 FR: 69 FR 15731	- Extended for an indefinite period the regulation prohibiting fishing for and possessing snapper grouper species within the Oculina Habitat Area of Particular Concern (HAPC).
Amendment 14	2/12/09	PR: 73 FR 32281 FR: 74 FR 1621	- Established eight deepwater Type II marine protected areas (MPAs) to protect a portion of the population and habitat of long-lived deepwater snapper grouper species.

Amendment 15B	2/15/10	PR: 74 FR 30569 FR: 74 FR 58902	<ul style="list-style-type: none"> -Reduced the effects of incidental hooking on sea turtles and smalltooth sawfish. - Adjusted commercial renewal periods and transferability requirements. - Implemented plan to monitor and assess bycatch. - Prohibited the sale of bag-limit caught snapper grouper species
Amendment 19 (included in Comprehensive Ecosystem-based Amendment 1)	7/22/10	PR: 75 FR 14548 FR: 75 FR 35330 75 FR 35330	-Provided presentation of spatial information for Essential Fish Habitat (EFH) and EFH-Habitat Areas of Particular Concern (EFH-HAPC) designations under the Snapper Grouper FMP.
Amendment 23 (included in Comprehensive Ecosystem-based Amendment 2)	TBD	PR: 76 FR 69230 FR: TBD	<ul style="list-style-type: none"> - Designates the Deepwater MPAs as EFH-HAPCs - Limits harvest of snapper grouper species in SC Special Management Zones to the bag limit - Modifies sea turtle release gear
Amendment 25 (included in Comprehensive ACL Amendment)	TBD	PR: 76 FR 74757 FR: TBD	<ul style="list-style-type: none"> . Sets sector allocations as 95% commercial, 5% recreational for wreckfish - Specifies the wreckfish OY and ACL at 250,000 pounds (ww). -. Designates an AM trigger and a post-season AM for wreckfish - Implements a recreational bag limit of one wreckfish per vessel per day - Specifies the recreational wreckfish season as July-August - Will also propose the wreckfish OY and ACL at 235,000 pounds (ww) via an amended proposed rule.

2 Actions and Alternatives

This section outlines the proposed actions and alternatives considered by the South Atlantic Fishery Management Council (South Atlantic Council). A complete analysis of these alternatives can be found in **Section 4**.

Appendix A contains one alternative the South Atlantic Council considered but eliminated from analysis during development of this amendment.

Definitions

Shares – Shares are a percentage of the commercial quota. With limited exceptions, an individual's percent share of the quota does not change unless they buy or sell shares.

Annual Pounds– An individual's annual allocation is the amount of pounds (gutted weight) an individual is ensured the opportunity to possess, land, or sell in a fishing year.

Active Shares – Shares owned by shareholders who have reported wreckfish landings within the qualifying period specified by the South Atlantic Council.

Inactive Shares – Shares owned by shareholders who have not reported wreckfish landings within the qualifying period specified by the South Atlantic Council.

Reverted Shares – Shares that are revoked for redistribution.

Share Cap – Maximum percentage of shares that one entity may individually or collectively hold.

Excess Shares – Shares in excess of the share cap. For example, if the share cap is 49% and an entity holds 55% of the shares, then the amount of excess shares would be 6%.

2.1 Action 1: Define and revert inactive wreckfish shares.

Alternative 1: No Action. Do not define or revert inactive shares for redistribution.

Alternative 2: Define inactive shares as shares belonging to any ITQ shareholder who has not reported wreckfish landings between April 16, 2009, and January 14, 2011, and revert inactive shares for redistribution among active shareholders.

Alternative 3 (Preferred): Define inactive shares as shares belonging to any ITQ shareholder who has not reported wreckfish landings between April 16, 2006, and January 14, 2011, and revert inactive shares for redistribution among active shareholders.

2.1.1 Comparison of alternatives

Under **Alternative 1 (No Action)**, inactive shares would remain with their current shareholders and thus, may or may not be utilized for harvesting wreckfish. Although there are 20 individuals holding wreckfish shares, there have been only a few participants actively harvesting wreckfish over the past ten years. The purpose of this action is to define “inactive shares” that will be reverted for redistribution among individuals with “active shares.” This is intended to allow shareholders who have actively participated in the fishery to maintain operations if the ACL is approved. The proposed action will revert shares that qualify as inactive without compensation to shareholders.

Alternative 1 (No Action) will not define inactive shares so that they can be redistributed among remaining shareholders, which likely would result in some active participants not being able to maintain operations under the proposed ACL. **Alternative 2** defines inactive shares as those shares held by individuals who have not reported wreckfish landings at any time during the last two fishing years (from April 16, 2009, through January 14, 2011), while **Alternative 3 (Preferred)** uses the last five fishing years as the qualifying period (from April 16, 2006, through January 14, 2011).

Alternative 1 (No Action) could result in the lowest overall commercial harvest of wreckfish and will likely result in the lowest fishing mortality for the wreckfish stock when compared to **Alternatives 2 and 3 (Preferred)**. Out of 20 wreckfish shareholders, currently there are either 14 inactive shareholders (**Alternative 2**), or 13 inactive shareholders (**Alternative 3 (Preferred)**) holding shares that would be redistributed among a group of 6 or 7 remaining active wreckfish shareholders (**Table 2-1**).

Table 2-1. Expected outcomes of alternatives for Action 1.

	Number of Shareholders with Inactive Shares	Percentage of Shares Reverted
Alternative 1	0	0%
Alternative 2	14	41.44%
Alternative 3 (Preferred)	13	28.18%

Data source: SERO using SEFSC wreckfish logbook

Fishing practices for the harvest of wreckfish would not be modified under this action in ways not considered in previous evaluations of effects to protected species; therefore, no increased risk to sea turtles, other protected species, essential fish habitat, or habitat areas of particular concern is expected from this action.

Under **Alternative 2** or **Alternative 3 (Preferred)** between 62,912 and 92,515 pounds (ww) of landings are expected to be foregone as a result, depending on the time period chosen for determining whether a shareholder is active or inactive. Given an average price of \$2.96/pound (ww)¹ in the 2010/2011 fishing year, the expected loss in annual gross revenue to the commercial sector is estimated to be between \$186,220 and \$273,844 under **Alternative 1 (No Action)**, or between \$26,603 on average for the 7 shareholders active in two most recent fishing years (i.e., 2009/2010 and 2010/2011) and \$45,641 on average for the 6 shareholders active in the five most recent fishing years (i.e., 2006/2007 through 2010/2011). These losses in gross revenue are expected to lead to a loss in profits as well.

Under **Alternative 2**, the 14 shareholders who are inactive in the wreckfish component of the snapper grouper fishery would not incur any losses in wreckfish landings or gross revenue. Under **Alternative 3 (Preferred)**, the total loss of quota share to the 13 inactive shareholders is estimated to be valued at approximately \$180,582, or \$13,891 per shareholder. It should be noted that “value” in the context used in the previous paragraph, and as subsequently used for **Alternative 3 (Preferred)** in the discussion below and throughout this section and appendices is based on the market price of shares and, therefore, is not equivalent to estimates of change in annual gross revenue. The seven active shareholders would not experience any direct economic effects under **Alternative 3 (Preferred)**, but would be expected to economically benefit indirectly since the intent of this alternative is to redistribute the inactive shares to the active shareholders. The active shareholders would not only benefit from the increased value of their assets, but would also benefit due to the expected increase in their wreckfish landings, gross revenue, and profits, relative to **Alternative 1 (No Action)**. In turn, the eight vessels used by these shareholders to harvest their annual allocations would also benefit because of the expected increase in their wreckfish landings and gross revenue.² Similarly, the five active dealers who bought wreckfish in 2010 would also be expected to experience indirect economic benefits, as their sales of wreckfish would be expected to increase relative to what they would be under **Alternative 1 (No Action)**.

Alternative 1 (No Action) would be expected to result in the most negative social effects. If the inactive shares are not redistributed to active shareholders, it is assumed that the amount of wreckfish being fished and delivered would also be reduced by the same percentage as the reduction from the total allowable catch (TAC) due to the proposed commercial ACL.

¹ All prices, values, and revenues are in 2009 dollars.

² Although most shareholders use one vessel to harvest their allocation, one shareholder has used two vessels in recent years.

Conversely, **Alternative 1 (No Action)** would be expected to result in some positive social effects in that inactive shareholders would be allowed to keep their shares and have the choice to fish, sell, or lease their shares in the future. **Alternative 2** and **Alternative 3 (Preferred)** are the most socially beneficial because these alternatives revert inactive shares to active shareholders and could allow most shareholders to continue participation at a level comparable to the current harvest under the TAC of 2 million pounds. **Alternatives 2 and 3 (Preferred)** could also cause some negative social effects by removing the ability of those shareholders deemed inactive to utilize their shares in the future.

Alternative 1 (No Action) would not result in any direct administrative effects. **Alternative 2** is likely to result in greater short-term administrative effects than **Alternative 3 (Preferred)**; however, none of the options under consideration are expected to significantly affect the administrative environment. In the long-term, there would be fewer shareholders in the fishery, and therefore, the administrative burden would be less than under the status quo situation. Overall, the process of determining the number of shares to be reverted, and reverting inactive shares would require a minimal to moderate short-term increase in administrative effort when compared to the status quo **Alternative 1 (No Action)**.

2.2 Action 2: Redistribute reverted shares to remaining shareholders.

Alternative 1: No Action. Do not redistribute reverted shares.

Alternative 2: Redistribute reverted shares to remaining shareholders based on 50% equal allocation + 50% landings history.

Option a: total wreckfish landings from April 16, 2009, through January 14, 2011.

Option b: total wreckfish landings from April 16, 2006, through January 14, 2011.

Alternative 3 (Preferred): Redistribute reverted shares to remaining shareholders based on landings history.

Option a: total wreckfish landings from April 16, 2009, through January 14, 2011.

Option b (Preferred): total wreckfish landings from April 16, 2006, through January 14, 2011.

Alternative 4: Redistribute reverted shares based on proportion of remaining shares held by each remaining shareholder after inactive shares are reverted.

Note: Landings in pounds (ww) will be determined based on wreckfish logbook records submitted to the Southeast Fisheries Science Center (SEFSC).

2.2.1 Comparison of alternatives

Redistribution of shares is necessary for active wreckfish harvesters to maintain operations under the proposed ACL. The alternatives in this action are similar to initial allocation scenarios, including the initial allocation formula used for the wreckfish ITQ program in 1992. Reverted shares would only be redistributed among shareholders who did not have inactive shares (as they are defined in Action 1).

Alternative 1 (No Action) would not redistribute the shares that were reverted from Action 1, and wreckfish fishermen would not be able to maintain the current size of their operations under the proposed ACL. **Alternative 2** considers a formula under which half of the reverted shares would be equally allocated among remaining shareholders and the other half would be allocated based on landings history. This type of allocation was used in the initial allocation of wreckfish ITQs in 1992. Under this alternative, the South Atlantic Council considered allocating reverted shares based on landings in the past two years (**Alternative 2a**) and landings in the past five fishing years (**Alternative 2b**).

Alternative 3 (Preferred) allocates reverted shares based on landings history only during the past two years (**Alternative 3a**) and in the past five fishing years (**Alternative 3b (Preferred)**). **Alternative 4** would redistribute reverted shares based on the proportion of shares that an active shareholder held. The process for this redistribution method would start with the selected method of identifying and reverting inactive shares. Of the shares of remaining active shareholders, each shareholder's proportion would be calculated. The shareholder would then receive the same percentage from the pot of reverted shares. For

example, if after inactive shares were reverted, a remaining active shareholder held 25% of the ‘active’ share pot, that shareholder would receive 25% of the reverted shares. This alternative would benefit active shareholders who currently hold more shares.

Alternative 1 (No Action) would likely result in an unnecessary reduction in fishing opportunities caused by a decrease in annual pounds associated with share holdings due to a significantly reduced commercial quota proposed through the Comprehensive ACL Amendment (SAFMC 2011). Under the status quo alternative, it is likely that only between 130,735 and 160,338 pounds (ww) of wreckfish would be landed during the 2012/2013 fishing year assuming the currently inactive shares would remain unfished. All other alternatives would theoretically result in some level of increased fishing effort among the current active shareholders, and would thus result in increased harvest limited only by the commercial ACL of 223,250 pounds (ww) proposed in the amended Comprehensive ACL Amendment (SAFMC 2011) and the poundage associated with the total shares held by each entity.

Alternative 2 is the most complex of the alternatives considered. **Alternative 2a** would benefit individuals who recently entered the wreckfish portion of the snapper grouper fishery and do not have extensive landings histories, whereas **Alternative 2b** would include a broader time series of landings histories and would also include those active shareholder who have recently begun to target wreckfish (**Table 2-2**). Therefore, adverse biological effects that could result from this action would be expected to be negligible because the ITQ would constrain landings to the commercial ACL.

Regardless of how reverted shares are allocated among the active shareholders, the total number of redistributed shares would not change, limiting harvest to the total percentage of shares issued to each shareholder. The biological effects of **Alternative 3 (Preferred)** would be similar to those under **Alternative 2 (Table 2-2)** for the same reasons given above. No significant biological effects are expected to result from redistributing reverted shares to active shareholders based on landings histories. Assuming the largest, active shareholders are the most likely to fish all shares they own because they are the most active participants, **Alternative 4** may have the potential to have slightly higher negative biological implications for the species when compared to **Alternatives 2 and 3 (Preferred) (Table 2-2)**.

With respect to the economic benefits accruing to active shareholders, all active shareholders will receive some economic benefit under all alternatives under **Action 2**, regardless of whether “active” is defined under Action 1, Alternative 2 or Alternative 3 (Preferred), with the exception of one shareholder under **Alternative 2a** assuming Action 1, Alternative 3 (Preferred). In the long-term, these economic benefits are in the form of an increase in the value of each shareholder’s shares.

The most equal distributions of *long-term* economic benefits occur under **Alternative 4** and **Alternative 2b**, while the most unequal distributions of long-term economic benefits occur under **Alternative 3a**, and **Alternative 3b (Preferred)** to a lesser extent, on a per shareholder basis. The distribution of long-term economic benefits under **Alternative 2a** is between these two extremes. The largest long-term economic benefits to a single shareholder

occur under **Alternative 3a** regardless of whether active is defined under Action 1, Alternative 2 or Alternative 3 (Preferred). The most equal distributions of *short-term* economic benefits occur under **Alternative 4** and **Alternative 2b**, while the most unequal distributions of short-term economic benefits occur under **Alternative 3a**, and **Alternative 3b (Preferred)** to a lesser extent, on a per shareholder basis. The distribution of short-term economic benefits under **Alternative 2a** is between these two extremes. The largest short-term economic benefits to a single shareholder occur under **Alternative 3a** regardless of whether active is defined under Action 1, Alternative 2 or Alternative 3 (Preferred). With respect to indirect economic effects on wreckfish dealers, the primary economic effect will be to maintain the total level of landings and sales of wreckfish.

Alternative 1 (No Action) would not redistribute reverted shares to active wreckfish participants and would be expected to result in the same negative social effects as those described for Action 1, Alternative 1 (No Action). All other alternatives and options would be expected to result in positive social effects as they would redistribute the reverted shares to active shareholders with the difference between the remaining alternatives and options being in the redistribution method. **Alternative 2** (along with its options) has a high likelihood of being perceived as a fair redistribution method and thus being more socially acceptable because of its mixed method which would revert shares to remaining shareholders based on 50% equal allocation plus 50% landings history. **Options 3a and 3b (Preferred)** have a high likelihood of being perceived as fair redistribution methods by shareholders with the longest and largest landings because they are based on past participation. **Alternative 4** would be expected to provide protection and social benefits for shareholders who have recently invested in the wreckfish portion of the snapper grouper fishery through the purchase of additional shares.

Alternative 1 (No Action) would result in the lowest administrative burden of all the alternatives considered since it would require no increase in staff time or cost to redistribute reverted shares. **Alternative 2** would result in the greatest administrative burden in the form of staff time and cost to calculate the number of shares each currently active shareholder would receive and then distribute the shares accordingly. The administrative effects of **Alternative 3 (Preferred)** would be slightly less than **Alternative 2** since only one calculation would be required to determine how many shares each shareholder would receive. **Alternative 4** would result in an increase in cost and staff time burdens less than that of **Alternative 3 (Preferred)**. Instead of basing redistribution on landings, NOAA Fisheries Service staff would be responsible for issuing the correct number of reverted shares based on the proportion of shares already held by each currently active shareholder.

Table 2-2. Summary of redistributed shares gained by shareholders under each alternative for **Action 2**, and the total percentage of shares that would result after redistribution

Reverted Share Distribution Scenarios Under Action 1 Alternative 2					
Shareholder	Alt. 2, Option a. (% of shares redistributed/total shares after redistribution)	Alt. 2, Option b. (% of shares redistributed/total shares after redistribution)	Alt. 3, Option a. (% of shares redistributed/total shares after redistribution)	Alt. 3, Option b (Pref). (% of shares redistributed/total shares after redistribution)	Alt. 4. (% of shares redistributed/total shares after redistribution)
A	3.51/7.02	0.09/3.60	0.12/3.63	3.50/7.01	2.49/6.00
B	7.47/13.64	11.49/17.66	8.04/14.22	9.20/15.37	4.37/10.54
C	5.43/26.06	5.38/26.01	3.95/24.58	6.14/26.77	14.60/35.23
D	4.13/14.32	3.25/13.44	1.35/11.55	5.08/15.27	7.21/17.40
E	17.34/26.42	21.09/30.17	27.78/36.86	14.00/23.07	6.42/15.50
F	3.55/12.53	0.14/9.13	0.19/9.17	3.53/12.51	6.36/15.34
G	N/A	N/A	N/A	N/A	N/A
Reverted Share Distribution Scenarios Under Action 1 Alternative 3 (Preferred)					
Shareholder	Alt. 2, Option a. (% of shares redistributed/total shares after redistribution)	Alt. 2, Option b. (% of shares redistributed/total shares after redistribution)	Alt. 3, Option a. (% of shares redistributed/total shares after redistribution)	Alt. 3, Option b (Pref). (% of shares redistributed/total shares after redistribution)	Alt. 4. (% of shares redistributed/total shares after redistribution)
A	2.05/5.56	2.03/5.54	0.08/3.59	0.04/3.55	1.38/4.89
B	4.75/10.92	4.55/10.72	5.47/11.64	5.07/11.24	2.42/8.60
C	3.36/23.99	3.20/23.83	2.69/23.32	2.37/23.00	8.10/28.72
D	2.47/12.67	2.73/12.92	0.92/11.11	1.43/11.62	4.00/14.19
E	11.46/20.53	6.66/15.74	18.90/27.97	9.30/18.38	3.56/12.62
F	2.08/11.06	2.04/11.03	0.13/9.11	0.06/9.05	3.53/12.51
G	2.01/15.27	6.97/20.22	0.00/13.25	9.91/23.16	5.20/18.46

Data source: SERO using SEFSC wreckfish logbook

2.3 Action 3: Establish a share cap.

Alternative 1: No Action. Do not establish a share cap.

Alternative 2: Establish a share cap as 15% of the total shares.

Alternative 3: Establish a share cap as 25% of the total shares.

Alternative 4 (Preferred): Establish a share cap as 49% of the total shares.

Alternative 5: Establish a share cap as 65% of the total shares.

Alternative 6: Establish a share cap as the percentage of total shares held by the largest shareholder after redistribution.

Note: It is the South Atlantic Council's intent that NOAA Fisheries Service administratively prohibit transfers of wreckfish shares for the necessary amount of time, not to exceed 45 days, until the reverted shares are redistributed.

2.3.1 Comparison of alternatives

The South Atlantic Council is required to define excessive shares for the ITQ program to establish a cap on the number of shares that one entity may own. This action is necessary to prohibit one individual from holding so many shares that he/she would control the market for wreckfish, in addition to equity concerns for the fishermen. A share cap can also be defined based on management goals for the fishery. The wreckfish ITQ program does not currently have a cap on shares, as this was not a Magnuson-Stevens Act requirement until the Act was reauthorized in 2007 and the wreckfish ITQ program was implemented in 1992 under Amendment 5 (SAFMC 1991). It should be noted that Amendment 5 established a 10% cap on the shares that could be received in initial allocation, but not a cap for the number of shares that an entity could hold by purchasing additional shares. In addition, the South Atlantic Council concluded that, at the time, existing anti-trust laws were sufficient.

Alternative 1 (No Action) would not establish a share cap, which would not only allow one entity (i.e., individual, corporation, etc.) to hold any amount of wreckfish shares, but also would not be in compliance with the reauthorized Magnuson-Stevens Act. **Alternative 2** would allow one entity to own 15% of shares, which under the proposed commercial ACL would allocate no more than 33,488 annual pounds to each active shareholder in a fishing year. **Alternative 3** would establish a share cap at 25%, and each fisherman would receive no more than 55,813 annual pounds each year. **Alternative 4 (Preferred)** sets the cap at 49%, which would never allow one entity to own half or more of wreckfish shares. Because the number of participants in the wreckfish fishery is small, some of the alternatives present share caps in which one individual may own more than half of the wreckfish shares. One entity may hold 65% of shares under **Alternative 5**. **Alternative 6** would set the cap at the maximum percentage of shares that one fisherman holds after redistribution, which would depend on the number of shares available for redistribution through Action 1, and the redistribution formula selected in Action 2.

Under **Alternative 1 (No Action)** six individuals would be allowed to own as many shares as they could obtain, either via purchases through the market or as a result of the alternative selected under Action 2. In theory, a single individual could end up controlling at least a majority of the quota shares and possibly 100% of the quota shares. **Alternative 2**, which would establish a share cap of 15%, is no longer a viable or reasonable alternative.³ Under **Alternative 4 (Preferred)**, **Alternative 5**, and **Alternative 6**, no individuals would exceed the share cap and thus no individual would possess excess shares that could be subject to further redistribution, regardless of whether an active shareholder is defined under Action 1.⁴ Thus, given current conditions, the issue of excess shares is only germane under **Alternative 3**. Harvest would be limited to the proposed ACL in the Comprehensive ACL Amendment (SAFMC 2011), if approved, and therefore biological effects of redistribution under **Alternatives 2, 3, and 4 (Preferred)**, would not be significant to target or non-target species. Biological effects under **Alternative 6** may be slightly higher than under **Alternatives 2-4 (Preferred)**, but may be lower than **Alternative 5** since no individual currently holds 65% of the shares.

Although **Alternative 1 (No Action)** would be expected to provide the most social benefits to shareholders holding a large number of shares, it is not practical because of its non-compliance with the mandates for limited access privilege programs. **Alternatives 2 and 3** would reduce the possible participation of the largest shareholders by giving each entity an equal share and would act in opposition to the underlying social and economic purpose of this amendment. The share cap under **Alternative 4 (Preferred)** would currently not impact any single individual (at their current share level with any of the various alternatives and options). However, if the largest entity were to acquire more shares prior to the freeze on transfers, this could change. **Alternative 5** would establish the largest share cap, and if this share cap were met by an entity, they would have the majority of the wreckfish shares, possibly causing negative social effects including effects to wreckfish dealers who currently depend on wreckfish landings, but are located in a different delivery area from the large shareholder entity; however at current levels no one entity would hold a majority of the shares and this would only be expected to occur if there were a significant transfer of shares. **Alternative 6** could allow for a possible situation similar to that of **Alternative 5** where one entity could have the majority of the shares if a significant transfer of shares were to occur prior to a freeze on transfers.

³ At the beginning of the 2011/12 fishing year, seven individuals were associated with the active shareholders under both Alternative 2 and Alternative 3 (Preferred) for Action 1 and thus **Alternative 2** under **Action 3** was a viable and reasonable alternative. However, one of the active shareholders recently sold his shares, which reduced the number of individuals associated with active shareholders to six.

⁴ In instances where more than one individual was associated with a single active shareholder (e.g., more than one individual owned the corporation holding the share certificate), landings were apportioned between those individuals according to the percentage of the corporation they own.

It is reasonable to assume that the lower the share cap is set the more administratively burdensome the action would be due to the increased probability of there being excess shares. Therefore, **Alternative 2** is likely to incur the greatest cost and time burden followed by **Alternatives 3, 4 (Preferred), 5, and 6**. Depending on the South Atlantic Council's choice of preferred, dealing with excess shares and associated outreach efforts could constitute a moderate short-term impact on the administrative environment. **Alternatives 1 (No Action)** and **Alternative 6** are likely to result in the same negligible level of cost and time burden since both would require little to no effort to implement. However, as stated previously, a cap on shares is a Reauthorized Magnuson-Stevens Act requirement and; therefore, if no share cap is established (**Alternative 1 (No Action)**), NOAA Fisheries Service could be subject to significant administrative burdens associated with litigation.

2.4 Action 4: Establish an appeals process.

Alternative 1: No Action. Do not specify provisions for an appeals process associated with the ITQ program.

Alternative 2 (Preferred): A percentage of the wreckfish shares for fishing year 2012/2013 will be set-aside to resolve appeals for a period of 90-days starting on the effective date of the final rule. The Regional Administrator will review, evaluate, and render final decisions on appeals. Hardship arguments will not be considered. The Regional Administrator will determine the outcome of appeals based on NMFS' logbooks. If NMFS' logbooks are not available, the Regional Administrator may use state landings records. Appellants must submit NMFS' logbooks or state landings records to support their appeal. After the appeals process has been terminated, any amount remaining from the set-aside will be distributed back to remaining ITQ shareholders according to the redistribution method selected under Action 2.

Sub-alternative 2a: 3% of wreckfish shares will be set aside for appeals.

Sub-alternative 2b (Preferred): 5% of wreckfish shares will be set aside for appeals.

Sub-alternative 2c: 10% of wreckfish shares will be set aside for appeals.

Alternative 3: A percentage of the wreckfish shares for fishing year 2012/2013 will be set-aside to resolve appeals for a period of 90-days starting on the effective date of the final rule. The Regional Administrator will review, evaluate, and render final decisions on appeals. Hardship arguments will not be considered. A special board composed of state directors/designees will review, evaluate, and make individual recommendations to the Regional Administrator on appeals. Hardship arguments will not be considered. The special board and the Regional Administrator will determine the outcome of appeals based on NMFS' logbooks. If NMFS' logbooks are not available, the Regional Administrator may use state landings records. Appellants must submit NMFS' logbooks or state landings records to support their appeal. After the appeals process has been terminated, any amount remaining from the set aside will be distributed back to remaining ITQ shareholders according to the redistribution method selected under Action 2.

Sub-alternative 3a: 3% of wreckfish shares will be set aside for appeals.

Sub-alternative 3b: 5% of wreckfish shares will be set aside for appeals.

Sub-alternative 3c: 10% of wreckfish shares will be set aside for appeals.

2.4.1 Comparison of alternatives

This action establishes an appeals process to address issues that arise when shares are defined as inactive and reverted in Action 1, and redistributed in Action 2. **Alternative 1 (No Action)** would not establish any kind of process for fishermen to ask for reconsideration of share reversion or redistribution formulas. **Alternative 2 (Preferred)** would establish the process under which the Regional Administrator would hear and consider all appeals requests (excluding hardship arguments), while **Alternative 3** would allow a board to hear and consider requests, but the Regional Administrator would render the final decision based on the board's recommendations. **Sub-alternatives a-c** under **Alternatives 2 (Preferred)** and **3** would establish a percentage (3%, 5%, or 10%) of the shares as a set-aside to address any

appeals. With respect to **Sub-alternatives a-c** under **Alternative 2 (Preferred)** and **Alternative 3**, the amount of quota to be set aside for appeals would be 6,697.5 pounds (ww), 11,162.5 pounds (ww), and 22,325 pounds (ww). For these sub-alternatives, the South Atlantic Council chose to follow recommendations from NOAA Fisheries Service staff that were based on outcomes of the appeals process for the Gulf of Mexico Red Snapper IFQ program. NOAA Fisheries Service staff recommended that 3% was adequate, but no more than 10% needed to be set aside for appeals.

Alternative 1 (No Action) would result in no adverse biological effects since it would not increase the number of shareholders allowed to receive reverted shares under Action 1, and thus fish those shares. **Alternative 2 (Preferred)** would give shareholders an opportunity to appeal their inactive share status or the number of reverted shares that were issued to active shareholders through the redistribution process. If either type of appeal were granted by the Regional Administrator, no adverse biological impact would be expected since the overall harvest of the proposed commercial ACL and the number of reverted shares are both limiting factors. The only difference between **Alternatives 2 (Preferred)** and **3** is the means by which appeals are considered; i.e., via Regional Administrator determination, or via special board recommendations presented to the Regional Administrator.

The wreckfish shareholders' appeals process is largely an administrative action that would have few if any biological implications. **Sub-alternatives 2a-2c** and **3a-3c** may result in some short-term lower fishing mortality during the 2012/2013 wreckfish fishing year, since 3%, 5% (**Preferred**), or 10% respectively, of the wreckfish shares would not be fished during the designated 90-days unless those shares are distributed to successful appellants. After the 2012/2013 season, the long-term biological effects of all the sub-alternatives would be the same.

The only difference in the expected economic effects between **Alternative 2 (Preferred)** and **Alternative 3** would be with respect to the timeliness and administrative costs associated with rendering decisions on these appeals. In general, it is expected that appeals would be resolved in a more timely and less costly manner if fewer people are involved in the decision making process. Thus, adverse economic effects are expected to be less under **Alternative 2 (Preferred)** relative to **Alternative 3**.

The absence of an appeals process, as would occur under **Alternative 1 (No Action)**, would be expected to increase the likelihood that one or more appropriate qualifying individuals would have either been deemed inactive and would not receive reverted shares or would not have received the proper amount of reverted shares through some sort of error, resulting in less social benefits. **Alternative 2 (Preferred)** and **Alternative 3** allow for an appeals process and would be expected to result in greater social benefits than **Alternative 1 (No Action)**.

3 Affected Environment

3.1 Habitat

3.1.1 Habitat for Snapper Grouper Species (including wreckfish)

Information on the habitat utilized by species in the Snapper Grouper Complex (which includes wreckfish) is included in Volume II of the Fishery Ecosystem Plan (SAFMC 2009) and incorporated here by reference. The FEP can be found at:

<http://www.safmc.net/ecosystem/Home/EcosystemHome/tabid/435/Default.aspx>

3.1.1.1 Essential Fish Habitat

Essential fish habitat (EFH) is defined in the Reauthorized Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) as “those waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity” (16 U.S. C. 1802(10)). Specific categories of EFH identified in the South Atlantic, which are utilized by federally managed fish and invertebrate species, include both estuarine/inshore and marine/offshore areas. Specifically, estuarine/inshore EFH includes: estuarine emergent and mangrove wetlands, submerged aquatic vegetation, oyster reefs and shell banks, intertidal flats, palustrine emergent and forested systems, aquatic beds, and estuarine water column. Additionally, marine/offshore EFH includes: live/hard bottom habitats, coral and coral reefs, artificial and manmade reefs, *Sargassum* species, and marine water column. See **Appendix I** for more information about EFH and Ecosystem Based Management in the South Atlantic.

EFH utilized by snapper grouper species in this region 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 183 meters [600 feet (but to at least 2,000 feet for wreckfish)] where the annual water temperature range is sufficiently warm to maintain adult populations of members of this largely tropical fish complex. EFH includes the spawning area in the water column above the adult habitat and the additional pelagic environment, including *Sargassum*, required for survival of larvae and growth up to and including settlement. In addition, the Gulf Stream is also EFH because it provides a mechanism to disperse snapper grouper larvae.

For specific life stages of estuarine-dependent and near-shore snapper grouper species, EFH includes areas inshore of the 30-meter (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 habitats.

EFH utilized by wreckfish (*Polyprion americanus*) off the coast of South Carolina and Georgia, is an area of extensive hard bottom habitat known as the Charleston Bump, on the northern Blake Plateau (Sedberry et al. 2001). This topographic feature is located in the Gulf Stream at depths of 400–800 m and roughly 160 km offshore. The rough topography of the Charleston Bump includes over 100 m of near-vertical steep rocky relief with carbonate outcroppings, overhangs, and phosphorite–manganese flat hard bottom (Popenoe and Manheim 2001; Sedberry et al. 2001). The high topographic relief of the bottom deflects the

Gulf Stream offshore and creates eddies, gyres, and upwellings in the Gulf Stream flow (Sedberry et al. 2001), which advect nutrients from the bottom into the euphotic zones, creating areas of high productivity (Lee et al. 1991).

3.1.1.2 Essential Fish Habitat-Habitat Areas of Particular Concern

Areas which meet the criteria for Essential Fish Habitat-Habitat Areas of Particular Concern (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; near shore 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 South Atlantic Fishery Management Council (South Atlantic Council)-designated Artificial Reef Special Management Zones (SMZs).

Areas that meet the criteria for EFH-HAPCs include habitats required during each life stage (including egg, larval, postlarval, juvenile, and adult stages).

In addition to protecting habitat from fishing related degradation through FMP regulations, the South Atlantic Council, in cooperation with NOAA Fisheries Service, actively comments on non-fishing projects or policies that may impact essential fish habitat. The South Atlantic Council adopted a habitat policy and procedure document that established a four-state Habitat Advisory Panel and adopted a comment and policy development process. With guidance from the Advisory Panel, the South Atlantic Council has developed and approved habitat policies on: energy exploration, development, transportation and hydropower re-licensing; beach dredging and filling and large-scale coastal engineering; protection and enhancement of submerged aquatic vegetation; and alterations to riverine, estuarine and near shore flows, offshore aquaculture, invasive estuarine species, and invasive marine species (available at www.safmc.net).

3.2 Biological/Ecological Environment

3.2.1 Species Most Impacted by this Amendment

3.2.1.1 Wreckfish, *Polyprion americanus*

The wreckfish, *Polyprion americanus*, is a large grouper-like fish that has a global anti-tropical distribution, but it was rarely captured in the western North Atlantic until the late 1980s, when a bottom hook-and-line fishery that targets wreckfish developed on the Blake Plateau (Vaughan et al. 2001). Wreckfish occur in the Eastern and Western Atlantic Ocean, on the Mid-Atlantic Ridge, on Atlantic islands and seamounts, and in the Mediterranean Sea, southern Indian Ocean, and southwestern Pacific Ocean (Heemstra 1986; Sedberry 1995; Sedberry et al. 1994, 2001). In the western Atlantic, they occur from Grand Banks (44°50' N) off Newfoundland (Scott and Scott 1988) to the Valdes Peninsula (43°30' S) in Argentina (Menni et al. 1981). Genetic evidence suggests that there are three stocks: one that encompasses the entire North Atlantic and Mediterranean, one from Brazil, and the third from Australia/New Zealand in the South Pacific (Ball et al. 2000; Sedberry et al. 1996). Active adult migration is also possible as the frequent occurrence of European fish hooks in western North Atlantic wreckfish suggests migration across great distances (Sedberry et al. 2001).

Wreckfish have supported substantial fisheries in the eastern North Atlantic, Mediterranean, Bermuda, and the western South Atlantic, but concentrations of wreckfish adequate to support a fishery off the southeastern United States were not discovered until 1987. The fishery off the southeastern United States occurs over a complex bottom feature that has over 100 m of topographic relief, known as the Charleston Bump, that is located 130-160 km southeast of Charleston, South Carolina, at 31°30'N and 79°00'W on the Blake Plateau (Sedberry et al. 2001). Fishing occurs at water depths of 450-600 m. Primary fishing grounds comprise an area of approximately 175-260 km², characterized by a rocky ridge and trough feature with a slope greater than 15° (Sedberry et al. 1994, 1999, 2001).

Adults are demersal and attain lengths of 200 cm TL (79 in; Heemstra 1986) and 100 kg (221 pounds; Roberts 1986). Wreckfish landed in the southeastern United States average 15 kg (33 pounds) and 100 cm TL (39 inches TL) (Sedberry et al. 1994). Goldman and Sedberry (2011) found that wreckfish predominantly consumed teleost fish and squid. Juvenile wreckfish (< 60 cm TL) are pelagic, and often associate with floating debris, which accounts for their common name. The absence of small pelagic and demersal wreckfish on the Blake Plateau has led to speculation that young wreckfish drift for an extended period, up to four years, in surface currents until reaching the eastern Atlantic, or perhaps that they make a complete circuit of the North Atlantic (Sedberry et al. 2001).

Vaughan et al. (2001) reported a maximum age of 35 years, however, off Brazil ages as great as 76 years have been reported for wreckfish (Peres and Haimovici 2004). In a recent Marine Resources Monitoring, Assessment, and Prediction (MARMAP) report, mature gonads were present in 60% of females at 751-800 mm, 57% at 801-850 mm, and 100% at larger sizes. The smallest mature female was 692 mm, and immature females were 576-831 mm. The estimate of length at 50% maturity was 790 mm (Gomperz model; 95% CI = 733-820). Mature gonads were present in 40% of males at 651-800 mm and 100% at larger sizes.

The smallest mature male was 661 mm, and immature males were 518-883 mm. L50 was not estimated because transition to maturity was abrupt.

Wreckfish spawn from December through May, with a peak during February and March. The highest percentages of ripe males occurred during December through May, which corresponded with the female spawning season; however, males in spawning condition were collected throughout the year. The male spawning peak was also during February and March.

3.2.1.2 Other Affected Species

Descriptions of other South Atlantic Council-managed species may be found in Volume II of the Fishery Ecosystem Plan (SAFMC 2009) or at the following web address:

<http://www.safmc.net/ecosystem/Home/EcosystemHome/tabid/435/Default.aspx>

In the wreckfish commercial fishery, barrelfish (*Hyperoglyphe perciformes*) and red bream (*Beryx decadactylus*) are caught as bycatch (Goldman and Sedberry 2011). Other species collected by Goldman and Sedberry (2011) on vertical lines with baited hooks from 400 to 800 m depth, on and around Charleston Bump were: splendid alfonsino (*Beryx splendens*), conger eel (*Conger oceanicus*), gulper shark (*Centrophorus granulosus*), roughskin dogfish (*Cirrhigaleus asper*), and shortspine dogfish (*Squalus mitsukurii*).

3.2.2 Protected species

There are 31 different species of marine mammals that may occur in the exclusive economic zone (EEZ) of the South Atlantic region. All 31 species are protected under the Marine Mammal Protection Act of 1972 (MMPA) and six are also listed as endangered under the Endangered Species Act (ESA) (i.e., sperm, sei, fin, blue, humpback, and North Atlantic right whales). Other species protected under the ESA occurring in the South Atlantic include five species of sea turtle (green, hawksbill, Kemp's ridley, leatherback, and loggerhead); the smalltooth sawfish; and two *Acropora* coral species (elkhorn [*Acropora palmata*] and staghorn [*A. cervicornis*]). Designated critical habitat for the *Acropora* corals and the North Atlantic right whale also occurs within the South Atlantic region. Because of the depth at which the fishery operates and the gears used, not all of the protected species known to occur in the South Atlantic may interact with the wreckfish fishery. The species potentially affected by the fishery are discussed below.

3.2.2.1 ESA-Listed turtles

Green, hawksbill, Kemp's ridley, leatherback, and loggerhead sea turtles are all highly migratory and travel widely throughout the South Atlantic. The following sections are a brief overview of the general life history characteristics of the sea turtles found in the South Atlantic region. Several volumes exist that cover the biology and ecology of these species more thoroughly (i.e., Lutz and Musick 1997, Lutz et al. 2002).

Green sea turtle hatchlings are thought to occupy pelagic areas of the open ocean and are often associated with *Sargassum* rafts (Carr 1987, Walker 1994). Pelagic stage green sea turtles are thought to be carnivorous. Stomach samples of these animals found ctenophores and pelagic snails (Frick 1976, Hughes 1974). At approximately 20 to 25 cm carapace

length, juveniles migrate from pelagic habitats to benthic foraging areas (Bjorndal 1997). As juveniles move into benthic foraging areas a diet shift towards herbivory occurs. They consume primarily seagrasses and algae, but are also known to consume jellyfish, salps, and sponges (Bjorndal 1980, 1997; Mortimer 1981, 1982; Paredes 1969). The diving abilities of all sea turtles species vary by their life stages. The maximum diving range of green sea turtles is estimated at 110 m (360 ft) (Frick 1976), but they most frequently make dives of less than 20 m (65 ft.) (Walker 1994). The time of these dives also varies by life stage. The maximum dive length is estimated at 66 minutes with most dives lasting from 9 to 23 minutes (Walker 1994).

The hawksbill's pelagic stage lasts from the time they leave the nesting beach as hatchlings until they are approximately 22-25 cm in straight carapace length (Meylan 1988, Meylan and Donnelly 1999). The pelagic stage is followed by residency in developmental habitats (foraging areas where juveniles reside and grow) in coastal waters. Little is known about the diet of pelagic stage hawksbills. Adult foraging typically occurs over coral reefs, although other hard-bottom communities and mangrove-fringed areas are occupied occasionally. Hawksbills show fidelity to their foraging areas over several years (Van Dam and Diéz 1998). The hawksbill's diet is highly specialized and consists primarily of sponges (Meylan 1988). Gravid females have been noted ingesting coralline substrate (Meylan 1984) and calcareous algae (Anderes Alvarez and Uchida 1994), which are believed to be possible sources of calcium to aid in eggshell production. The maximum diving depths of these animals are not known, but the maximum length of dives is estimated at 73.5 minutes. More routinely, dives last about 56 minutes (Hughes 1974).

Kemp's ridley hatchlings are also pelagic during the early stages of life and feed in surface waters (Carr 1987, Ogren 1989). Once the juveniles reach approximately 20 cm carapace length they move to relatively shallow (less than 50m) benthic foraging habitat over unconsolidated substrates (Márquez-M. 1994). They have also been observed transiting long distances between foraging habitats (Ogren 1989). Kemp's ridleys feeding in these nearshore areas primarily prey on crabs, though they are also known to ingest mollusks, fish, marine vegetation, and shrimp (Shaver 1991). The fish and shrimp Kemp's ridleys ingest are not thought to be a primary prey item but instead may be scavenged opportunistically from bycatch discards or from discarded bait (Shaver 1991). Given their predilection for shallower water, Kemp's ridleys most routinely make dives of 50 m or less (Byles 1988; Soma 1985). Their maximum diving range is unknown. Depending on the life stage a Kemp's ridley may be able to stay submerged anywhere from 167 minutes to 300 minutes, though dives of 12.7 minutes to 16.7 minutes are much more common (Byles 1988; Mendonça and Pritchard 1986; Soma 1985). Kemp's ridleys may also spend as much as 96% of their time underwater (Byles 1988; Soma 1985).

Leatherbacks are the most pelagic of all ESA-listed sea turtles and spend most of their time in the open ocean, although they will enter coastal waters and are seen over the continental shelf on a seasonal basis to feed in areas where jellyfish are concentrated. Leatherbacks feed primarily on cnidarians (medusae, siphonophores) and tunicates. Unlike other sea turtles, leatherbacks' diets do not shift during their life cycles. Because leatherbacks' ability to capture and eat jellyfish is not constrained by size or age, they continue to feed on these species regardless of life stage (Bjorndal 1997). Leatherbacks are the deepest diving of all sea turtles. It is estimated that these species can dive in excess of 1000 m (Eckert et al. 1989).

but more frequently dive to depths of 50 m to 84 m (Eckert et al. 1986). Dive times range from a maximum of 37 minutes to more routines dives of 4 to 14.5 minutes (Eckert et al. 1986, 1989; Keinath and Musick 1993; Standora et al. 1984). Leatherbacks may spend 74% to 91% of their time submerged (Standora et al. 1984).

Loggerhead hatchlings forage in the open ocean and are often associated with *Sargassum* rafts (Bolten and Balazs 1995; Carr 1987; Hughes 1974; Walker 1994). The pelagic stage of these sea turtles are known to eat a wide range of things including salps, jellyfish, amphipods, crabs, syngnathid fish, squid, and pelagic snails (Brongersma 1972). Stranding records indicate that when pelagic immature loggerheads reach 40-60 cm straight-line carapace length they begin to live in coastal inshore and nearshore waters of the continental shelf throughout the South Atlantic (Witzell 2002). Here they forage over hard- and soft-bottom habitats (Carr 1986). Benthic foraging loggerheads eat a variety of invertebrates with crabs and mollusks being an important prey source (Burke et al. 1993). Estimates of the maximum diving depths of loggerheads range from 211 m to 233 m (692-764 ft.) (Limpus and Nichols 1988; Thayer et al. 1984). The lengths of loggerhead dives are frequently between 17 and 30 minutes (Lanyon et al. 1989; Limpus and Nichols 1988, 1994; Thayer et al. 1984) and they may spend anywhere from 80 to 94% of their time submerged (Lanyon et al. 1989; Limpus and Nichols 1994).

3.2.2.2 South Atlantic Fisheries Interactions with ESA

Sea turtles are vulnerable to capture in the vertical line gear used in the wreckfish fishery. The effects of the wreckfish fishery on sea turtles were evaluated in the previous biological opinion on the entire South Atlantic snapper grouper fishery (NMFS 2006). The biological opinion concluded the entire South Atlantic snapper grouper fishery (including the wreckfish sector) was likely to adversely affect sea turtles, but not jeopardize their continued existence.

Table 3-1 illustrates the number of interactions estimated for the South Atlantic snapper grouper fishery and the type of interaction anticipated (i.e., lethal or non-lethal).

Entanglement in the hook-and-line gear is the primary route of effect on sea turtles from the snapper grouper fishery as a whole. There are no observer data on sea turtle takes and information collected through Cooperative Research Program projects has not shown any sea turtle takes.

Table 3-1. Annual anticipated takes of ESA-listed marine turtles for the Snapper Grouper FMP.

Fishery	Sea Turtle Species				
	Loggerhead	Leatherback	Kemp's Ridley	Green	Hawksbill
South Atlantic Snapper Grouper	68-No more than 23 lethal	9-No more than 5 lethal	7-No more than 3 lethal	13-No more than 5 lethal	2-No more than 1 lethal

3.2.2.3 Designated Critical Habitat for ESA-Listed Species in the South Atlantic

In the South Atlantic, the critical habitat designated for the North Atlantic right whale may be impacted by the wreckfish fishery. Critical habitat for the North Atlantic right whale has been designated off coastal Florida and Georgia, and a small portion of which overlaps the South Atlantic Council's jurisdiction. The unit is defined as extending from the mouth of the Altamaha River, Georgia, to Jacksonville, Florida, out 15 nautical miles and from Jacksonville, Florida, to Sebastian Inlet, Florida, out five nautical miles. The area was designated because of its importance as a calving area. The physical or biological feature of the critical habitat essential to the conservation of North Atlantic right whales are related to water depth, water temperature, and bathymetry. In general the vertical line gear used in the commercial wreckfish fishery is not likely to adversely affect North Atlantic right whale, and even if there is overlap with the calving season, there are no anticipated impacts because of the gear type in use.

3.3 Administrative Environment

3.3.1 The Fishery Management Process and Applicable Laws

3.3.1.1 Federal Fishery Management

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

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

The South Atlantic Council is responsible for conservation and management of fishery resources in federal waters of the U.S. South Atlantic. These waters extend from 3 to 200 miles offshore from the seaward boundary of the States of North Carolina, South Carolina, Georgia, and east Florida to Key West. The South Atlantic Council has thirteen voting members: One from NOAA Fisheries Service; one each from the state fishery agencies of North Carolina, South Carolina, Georgia, and Florida; and eight public members appointed by the Secretary. On the South Atlantic Council there are two public members from each of the four South Atlantic States. Non-voting members include representatives of the U.S. Fish and Wildlife Service, U.S. Coast Guard, State Department, and Atlantic States Marine Fisheries Commission (ASMFC). The South Atlantic Council has adopted procedures whereby non-voting members serving on the South Atlantic Council Committees have full voting rights at the Committee level but not at the full Council level. South Atlantic Council members serve three-year terms, and are recommended by state governors and appointed by the Secretary from lists of nominees submitted by the governors. Appointed members may serve a maximum of three consecutive terms.

Public interests also are involved in the fishery management process through participation on Advisory Panels and through council meetings, which, with few exceptions for discussing personnel matters, are open to the public. The South Atlantic Council uses a Scientific and Statistical Committee (SSC) to review the data and science being used in assessments and fishery management plans/amendments. In addition, the regulatory process is in accordance with the Administrative Procedures Act (APA), in the form of “notice and comment” rulemaking.

3.3.1.2 State Fishery Management

The state governments of North Carolina, South Carolina, Georgia, and Florida have authority to manage fisheries that occur in waters extending three nautical miles from their respective shorelines. North Carolina's marine fisheries are managed by the Marine Fisheries Division of the North Carolina Department of Environment and Natural Resources. The Marine Resources Division of the South Carolina Department of Natural Resources regulates South Carolina's marine fisheries. Georgia's marine fisheries are managed by the Coastal Resources Division of the Department of Natural Resources. The Marine Fisheries Division of the Florida Fish and Wildlife Conservation Commission is responsible for managing Florida's marine fisheries. Each state fishery management agency has a designated seat on the South Atlantic Council. The purpose of state representation at the South Atlantic Council level is to ensure state participation in Federal fishery management decision-making and to promote the development of compatible regulations in state and Federal waters.

The South Atlantic states are also involved through the ASMFC in management of marine fisheries. The Commission was created to coordinate state regulations and develop management plans for interstate fisheries. It has significant authority, through the Atlantic Striped Bass Conservation Act and the Atlantic Coastal Fisheries Cooperative Management Act, to compel adoption of consistent state regulations to conserve coastal species. The ASFMC also is represented at the South Atlantic Council level, but does not have voting authority.

NOAA Fisheries Service State-Federal Fisheries Division is responsible for building cooperative partnerships to strengthen marine fisheries management and conservation at the state, inter-regional, and national levels. This division implements and oversees the distribution of grants for two national (Inter-jurisdictional Fisheries Act and Anadromous Fish Conservation Act) and two regional (Atlantic Coastal Fisheries Cooperative Management Act and Atlantic Striped Bass Conservation Act) programs. Additionally, it works with the ASMFC to develop and implement cooperative State-Federal fisheries regulations.

3.3.2 Enforcement

Both the NOAA Fisheries Service Office for Law Enforcement (NOAA/OLE) and the United States Coast Guard (USCG) have the authority and the responsibility to enforce NOAA Fisheries Service regulations. NOAA/OLE agents, who specialize in living marine resource enforcement, provide fisheries expertise and investigative support for the overall fisheries mission. The USCG is a multi-mission agency, which provides at-sea patrol services for the enforcement of fisheries regulations.

Neither NOAA/OLE nor the USCG can provide a continuous law enforcement presence in all areas due to the limited resources of NOAA/OLE and the priority tasking of the USCG. To supplement at-sea and dockside inspections of fishing vessels, NOAA entered into Joint Enforcement Agreements with Florida, Georgia, and South Carolina, which granted authority to state officers to enforce the laws for which NOAA/OLE has jurisdiction. In recent years, the level of involvement by the states has increased through Joint Enforcement Agreements, whereby states conduct patrols that focus on federal priorities and, in some circumstances, prosecute resultant violators through the state when a state violation has occurred.

NOAA General Counsel issued a revised Southeast Region Magnuson-Stevens Act Penalty Schedule in June 2003, which addresses all Magnuson-Stevens Act violations in the Southeast Region. In general, this Penalty Schedule increases the amount of civil administrative penalties that a violator may be subject to up to the current statutory maximum of \$120,000 per violation. NOAA General Counsel requested public comment through December 20, 2010, on a new draft policy.

3.4 Economic Environment

3.4.1 Description of Regulations, Harvest Methods, and Gear

Wreckfish were discovered by fishermen in commercial concentrations on the Blake Plateau in deep water located about 120 nautical miles east of Savannah, Georgia in the mid-1980s. The fish are caught at depths from 1,500-2,000 feet (450-600 m) over rocky ridge systems, with an average weight of wreckfish caught during the 1980s and 1990s of over 13 kg (30 pounds) (Vaughan et al. 2001). Longliners retrieving pieces of parted longline gear first caught wreckfish in the mid-1980s, but hydraulic reels with baited hooks were developed later to exploit this fishery. The fishery expanded rapidly from two vessels landing fewer than 30,000 pounds in 1987 to six vessels with landings of over 450,000 pounds (ww) in 1988, and about 25 vessels landing over 3.7 million pounds (ww) in 1989.

In 1990, over two million pounds (ww) of wreckfish were landed by 40 vessels. In response to the rapid growth of the fishery, the South Atlantic Council added wreckfish to the Snapper Grouper FMU via Amendment 3 (SAFMC 1990) to the Snapper Grouper FMP. Amendment 3 also established a permit system, as well as a total allowable catch (TAC), a control date, and a spawning season closure. In September 1991, the South Atlantic Council established the individual transferable quota (ITQ) program for the wreckfish fishery through Snapper Grouper Amendment 5 (SAFMC 1991). The ITQ program was established to manage the commercial wreckfish fishery for long-term economic viability, among other objectives.

Structure of the Wreckfish ITQ Program

Snapper Grouper Amendment 5 (SAFMC 1991) outlined the structure of the wreckfish ITQ program adopted by the South Atlantic Council in September 1991. The summaries below are, in some cases, taken directly from Amendment 5.

Initial Eligibility

Eligibility for participation required that applicants include those who could document wreckfish landings during the period beginning January 1, 1989, and ending September 24, 1990 (the effective control date). The applicants also needed to be able to document having landed at least 5,000 pounds (gutted weight) of wreckfish in aggregate between January 1, 1987, and September 24, 1990.

Distribution of Initial Allocation

Initial allocations were made based on dividing one-half of the available shares (100 were made available, each representing 1% of the total allowable catch (TAC)) equally among eligible participants. The remaining shares were divided based on each participant's percentage of total wreckfish landings between January 1, 1987, and August 8, 1990. The formula for the weighted portion of the initial allocation for an individual was: participant's total documented wreckfish catch 1987-1990 divided by total wreckfish catch 1987-1990 by all participants, as determined by fish house receipts and dealer records with affidavits submitted, not official landings data. Shares were allocated as percentages of the 2 million pound TAC. Initial allocation was made to vessel owners even if the portion of an individual's share was based on catch history from separate vessels owned by an individual during the 1987-1990 period. Amendment 5 stipulated that no percentage share could be greater than 10% of the available shares at the time of the initial allocation, but no rule was put in place by the South Atlantic Council to limit ownership of shares after initial allocation.

Transferability

Sale of percentage wreckfish shares is allowed to anyone. However, sale or lease of individual quota is allowed between shareholders only. Therefore, if an individual wanted to fish for wreckfish and did not own shares, he/she would first have to purchase shares and then purchase individual quota (if the purchase was made mid-season and was not accompanied by quota), or wait for annual allocation of individual quota based on shares owned.

Tracking sales of individual quota is done by requiring the buyer and seller to sign and date coupons that are sold. The system to track transactions of percent shares involves a NOAA Fisheries Service single point transfer agent similar to the way stock and bond transactions are recorded.

Tracking and Monitoring

The system to track and monitor individual quotas to ensure that the TAC and individual quotas are not exceeded is a dual-entry record keeping system. The main features of the dual-entry system are as follows:

- 1) Individual quotas are issued via coupons in small denominations of wreckfish pounds (100 and 500 pound denominations) equaling the total pounds of a fisherman's individual quota for that year. (Note: the lack of divisibility of the coupons has presented problems for fishermen in the past who wanted to deliver more than 100 pound increments allowed but less than 500 pound increments allowed. This resulted in the loss of pounds to the fishermen. This can be corrected by issuing coupons down to 1 pound.).
- 2) Coupons are serial numbered, and coded for each fisherman, and a portion of the serial number is the permit number (associated with a particular vessel) of the fisherman receiving the individual quota allocation.
- 3) Coupons are separable at the center, one part is submitted to the Southeast Fisheries Science Center within seven days of the time of trip settlement along with the logbook sheet for the trip; the other half goes to the fish house or dealer that purchases the wreckfish.
- 4) Fishermen must have adequate coupon units on board for the wreckfish in their possession, and the proper number of coupons must be "canceled" by being signed and dated, in ink, prior to landing.
- 5) Fishermen must obtain a permit for the vessel used to harvest wreckfish, and submit logbook sheets and canceled coupons to record their catch. Anyone in possession of wreckfish who does not have a permit, logbook, and adequate coupons for the wreckfish in their possession is in violation.
- 6) Fishermen must return any unused coupons to NOAA Fisheries Service at the end of the fishing year, but compliance is not consistent.

- 7) Fish houses are responsible for signing and dating their portions of the coupons accompanying wreckfish they purchase. Fish houses must have canceled and dated coupons equaling the pounds of wreckfish at their fish house at a given time. Fish houses are also responsible for printing their federal wreckfish permit dealer permit number on their side of coupons accompanying wreckfish they purchase.
- 8) Fish houses must submit monthly settlement sheets or the equivalent, to report the total number of pounds of wreckfish purchased that month, as well as submitting their portion (the side marked for dealers) of wreckfish coupons totaling the quantity of wreckfish purchased that month.

Dealer Permits

Dealers must obtain a federal wreckfish dealer permit in order to receive wreckfish. Requirements for a dealer permit include that the applicant possess a state dealer's license, and that the applicant must have a physical facility at a fixed location in the state wherein the dealer has a state dealer's license.

Fishing Permits

Fishermen are required to possess a federal snapper grouper permit and a wreckfish vessel permit in conjunction with coupons and a current logbook. To obtain a wreckfish permit, an applicant must possess a certificate of percentage share, which is issued at the initial allocation of shares or obtained from the transfer agent after purchasing percentage share or portion thereof.

Offloading Requirements

To offload wreckfish at any location other than that of a federally permitted wreckfish dealer, the vessel operator must notify the NOAA Fisheries Service enforcement office 24 hours prior to offloading. All offloading of wreckfish is to occur between 8 am and 5 pm regardless of whether offloading occurs at a federally permitted dealer location.

The Market for Wreckfish Shares and Coupons

Shareholders who entered the fishery after ITQ implementation or increased their initial allocation through purchasing shares from others had to purchase shares in order to be able to fish for a specific poundage of wreckfish annually in perpetuity. An informal survey of shareholders in 2009 showed that some individuals had purchased shares with the intent of selling them when prices were higher, and some purchased shares because they felt it was a good investment and that if they did not fish all of their coupons, then they could sell them. Several shareholders were interested in selling their shares or coupons if offered an "appropriate" price. However, no shareholder knew what the appropriate price might be.

All shareholders contacted were aware they could sell their shares and coupons to a buyer, however, a lack of buyers prevent them from doing so. Several shareholders were waiting for the stock to rebound so that they could sell, lease, or fish their wreckfish shares/coupons. Three shareholders felt that implementation of the ITQ created a great deal of animosity due to the initial allocation. They theorized that other shareholders were holding on to the quota out of bitterness and to help rebuild the stock. Other shareholders stated that they would sell or lease if there were buyers willing to pay a fair price. Most shareholders contacted preferred to hold onto their shares and sell their coupons instead.

3.4.2 Landings, Ex-Vessel Value, Price, and Effort

Historical Landings

Wreckfish landings are available from 1988-1990 (by calendar year) from NOAA Fisheries Service general canvas files and by fishing year from 1991/1992 thru 2010/2011 from fishermen logbooks. Landings for 2001/2002 through 2008/2009 are confidential because there were fewer than three vessels that fished wreckfish during those years and/or fewer than three dealers purchased wreckfish in those years (**Table 3-2**).

In general, across the years when wreckfish landings can be reported, the landings decreased from a high of 3.7 million pounds in 1989 to about 216,000 pounds in 2009/201. One of the goals of the ITQ program was to eliminate the derby fishery of the early 1990s. In the years after the ITQ went into place, the average price per pound slowly increased from \$1.19 in 1991/1992, the last year before the ITQ program was implemented, to a high of \$3.01 per pound in 2010/2011 (**Table 3-2**).

Table 3-2. Landings in pounds (whole weight), 1988-2001. (Landings after 2001 are confidential given the small number of participating vessels or dealers. However, price per pound can be determined without undermining confidentiality for all years.)

Year	Wreckfish Landings (pounds ww)	Value (actual)	Price Per Pound
1988	455,969	\$670,216	\$1.63
1989	3,704,966	\$4,644,877	\$1.39
1990	2,111,776	\$2,562,632	\$1.35
1991/1992	1,926,086	\$2,071,663	\$1.19
1992/1993	1,270,556	\$1,962,310	\$1.71
1993/1994	1,144,734	\$1,939,354	\$1.88
1994/1995	1,203,268	\$2,073,158	\$1.91
1995/1996	644,988	\$1,126,196	\$1.95
1996/1997	396,869	\$762,965	\$2.13
1997/1998	249,714	\$498,348	\$2.22
1998/1999	210,801	\$429,407	\$2.26
1999/2000	210,500	\$427,178	\$2.25
2000/2001	168,093	\$351,262	\$2.32
2001/2002	Confidential	Confidential	\$2.23
2002/2003	Confidential	Confidential	\$2.04
2003/2004	Confidential	Confidential	\$2.05
2004/2005	Confidential	Confidential	\$2.14
2005/2006	Confidential	Confidential	\$2.33
2006/2007	Confidential	Confidential	\$2.16
2007/2008	Confidential	Confidential	\$2.75
2008/2009	Confidential	Confidential	\$2.48
2009/2010	216,449	\$567,263	\$2.91
2010/2011	257,320	\$697,711	\$3.01

Data Source: NOAA Fisheries Service Logbook data, 10/18/2011.

Historical Vessel Participation

Vessel participation has fluctuated greatly over time. **Table 3-3** shows the number of vessels participating annually. There was some contraction in the fishery after the ITQ program went into place in 1992. The number of permitted vessels, participating vessels and dealers purchasing wreckfish, on average, all declined in the years following 1992. However, 2009/2010 and 2010/2011 both saw an increase in permitted vessels, as well as participating vessels and dealers.

Table 3-3. Number of vessels and dealers participating in the wreckfish fishery, 1991-2011.

Year	Vessels Permitted	Vessels	Dealers Participating
1991/1992	91	38	22
1992/1993	39	20	14
1993/1994	27	19	8
1994/1995	25	17	8
1995/1996	17	13	7
1996/1997	18	9	4
1997/1998	14	7	3
1998/1999	12	3	3
1999/2000	12	3	3
2000/2001	8	3	3
2001/2002	6	2	2
2002/2003	8	3	2
2003/2004	9	2	1
2004/2005	10	3	2
2005/2006	10	4	2
2006/2007	9	4	2
2007/2008	9	4	2
2008/2009	10	3	2
2009/2010	15	5	4
2010/2011	14	7	6

Data Source: NOAA Fisheries Service Southeast Regional Office, 8/17/2011

Number of Shareholders

Table 3-4 shows the number of shareholders over time. **Table 3-5** shows the number of shareholders in the wreckfish fishery by the percentage of shares held. When the ITQ program went into effect, the initial 49 shareholders decreased to 37 in the first year. By 1994/1995, the number of shareholders had decreased to 26, and from 1994/1995 through 2010/2011, the number of shareholders remained at 25 or 26 until recently when some shareholders sold all their shares. As of November 17, 2011, there were 20 shareholders.

Table 3-4. Number of wreckfish ITQ shareholders, 1991-2011.

Year	Shareholders
1991/1992	49
1992/1993	37
1993/1994	35
1994/1995	26
1995/1996	25
1996/1997	25

Year	Shareholders
1997/1998	25
1998/1999	25
1999/2000	25
2000/2001	25
2001/2002	25
2002/2003	25
2003/2004	25
2004/2005	25
2005/2006	25
2006/2007	25
2007/2008	25
2008/2009	25
2009/2010	25
2010/2011	26

Data Source: NOAA Fisheries Service Southeast Regional Office, 8/17/2011

Table 3-5 indicates the percent of shares held by individual shareholders. One concern with the ITQ program was consolidation of shares. As the table shows, there is one participant who has held more than 15% of the shares in the fishery in the past several years. Over time, there has been little additional consolidation of shares among shareholders in the fishery.

Table 3-5. Number of shareholders and number of shares held, 1991-2010.

Share	Initial Allocation	July 1992	1993	1994	1995-2008	2009-2010
Less than 1%	0	0	1	2	3	3
1-1.9%	31	22	20	12	10	10
2-2.9%	9	5	5	1	1	2
3-3.9%	6	4	4	2	2	2
4-5.9%	2	1	1	3	2	2
6-7.9%	1	3	3	3	3	2
8-9.9%	0	1	1	0	1	1
10-14.9%	0	1	1	2	2	2
Over 15%	0	0	0	1	1	1
Total	49	37	36	26	25	25

Data Source: NOAA Fisheries Service Southeast Regional Office, 8/17/2011

Trip Characteristics

Table 3-6 consolidates some data from **Tables 3-2, 3-3, and 3-4** showing in summary form the number of trips taken each season, and the number of active dealers, vessels, and shareholders. Additionally, where the landings are not confidential, average gross revenue is shown for dealers, vessels and shareholders, along with the maximum amount made by the highest earning dealer, vessel, and shareholder for each of the fishing years. Comparing the results, typically there are one or two dealers, fishermen, or shareholders who earned the most revenue from participating in the wreckfish fishery each year. This is not surprising given the relatively low numbers each year, especially beginning in the 1997/1998 season.

Table 3-6. Trips, active dealers, vessels, and shareholders in the wreckfish fishery from the 1992-93 to the 2010-11 fishing years. Data shown are nominal, unadjusted values.

Fishing Year	Trips	Dealers			Vessels			Shareholders		
		Active Dealers	Average per Dealer	Maximum Dealer	Active Vessels	Average per Vessel	Maximum Vessel	Active Shareholders	Average Per Shareholder	Maximum Shareholder
1992/1993	222	14	\$140,743	\$934,505	20	\$98,520	\$514,921	19	\$103,705	\$514,921
1993/1994	210	8	\$242,763	\$926,104	19	\$102,216	\$544,839	16	\$121,382	\$544,839
1994/1995	202	8	\$259,217	\$1,023,813	17	\$121,984	\$497,720	15	\$138,249	\$497,720
1995/1996	140	7	\$164,182	\$606,134	13	\$88,406	\$394,770	13	\$88,406	\$394,770
1996/1997	95	4	\$190,741	\$345,320	9	\$84,774	\$306,584	11	\$69,360	\$306,584
1997/1998	56	3	\$166,116	\$318,751	7	\$71,193	\$308,552	10	\$49,835	\$308,552
1999/2000	36	3	\$142,393	\$301,675	3	\$142,393	\$301,675	3	\$142,393	\$301,675
2000/2001	28	3	\$117,087	\$252,613	3	\$117,087	\$252,613	3	\$117,087	\$252,613
2001/2002	31	*	*	*	*	*	*	*	*	*
2002/2003	26	*	*	*	*	*	*	*	*	*
2003/2004	28	*	*	*	*	*	*	*	*	*
2004/2005	25	*	*	*	*	*	*	*	*	*
2005/2006	48	*	*	*	*	*	*	*	*	*
2006/2007	36	*	*	*	*	*	*	*	*	*
2007/2008	26	*	*	*	*	*	*	*	*	*
2008/2009	22	*	*	*	*	*	*	*	*	*
2009/2010	49	4	\$142,696	\$513,546	5	\$114,157	\$405,482	5	\$114,157	\$405,482
2010/2011	41	5	\$139,542	\$570,795	7	\$99,673	\$435,492	5	\$139,542	\$435,492

* Denotes data are confidential. Data Source: NOAA Fisheries Service Logbook data, 8/10/2011.

The commercial economic impacts associated with the harvesting of wreckfish^{by} U.S. commercial fishermen and the activities of the seafood and retail industries that depend on fish and seafood products can be estimated. These impacts are expressed in terms of employment (full-time equivalent jobs), personal income, and output (sales by U.S. businesses). Using 2009/2010 values, the harvesting sector accounted for 6 jobs, \$214,000 in

income, and \$557,000 in output. When harvester data are combined with all aspects of the seafood industry (retail, restaurants, etc.) related to wreckfish harvest, the values increase to 49 jobs, \$1,457,000 in income, and \$3,419,000 in output.

3.4.3 Imports

Wreckfish specifically is not imported, but wreckfish is comparable and marketed as general “grouper” or as a substitute for other grouper species. NOAA Fisheries Service purchases fisheries trade data from the Foreign Trade Division of the U.S. Census Bureau, and data are available for download at <http://www.st.nmfs.noaa.gov/st1/trade/index.html>. The list of product codes relevant to this data request includes fresh and frozen groupers.

Imports of fresh groupers increased from 5.6 million pounds (product weight) in 1991 to a peak of 12.9 million pounds in 1998 (**Figure 3-1**), which were worth \$6.1 million (current dollars) and \$18.6 million, respectively. Imports have remained relatively steady since 1999 with an upward trend, with an annual average of 8 million pounds worth \$18.1 million. Imports generally originated in Mexico, and in Panama to a much lesser extent, and entered the U.S. in Miami. Prior to 2006, imports of fresh groupers were above average in March and April and below average in October and November. However, imports in March have declined significantly since 2006.

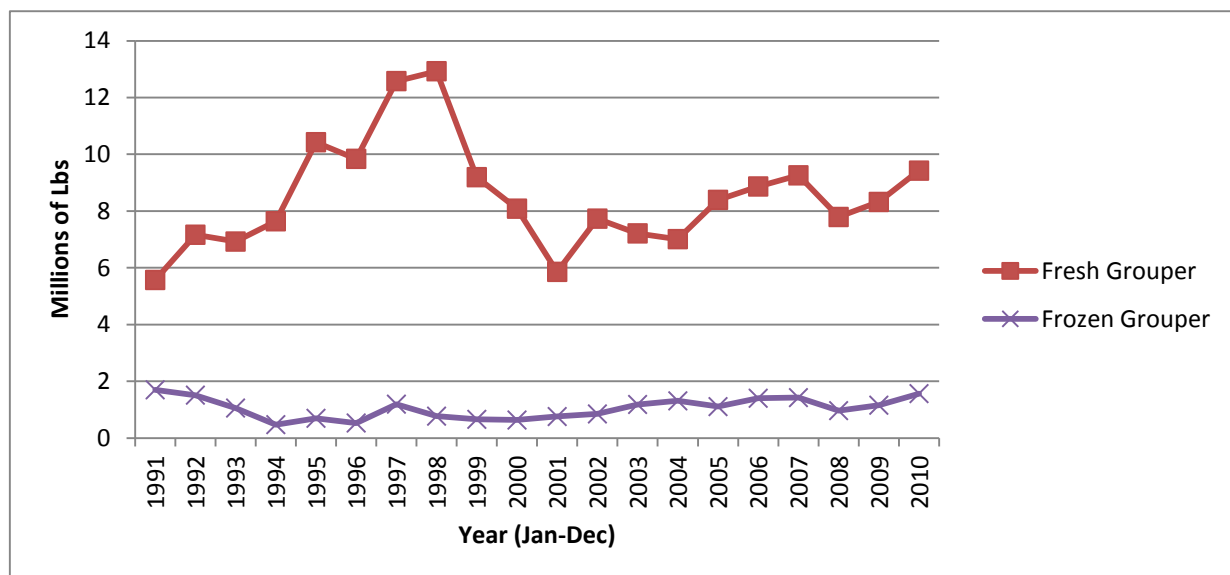


Figure 3-1. Grouper imports in pounds (product weight)

Imports of frozen grouper were relatively minor, and averaged 1.0 million pounds since 2006 (**Figure 3-1**), which were worth \$1.6 million. Imports generally originated in Mexico or Asia, and entered the U.S. in Miami, Tampa or San Juan. Based on data for imports, on average from 2006-2009, imports of frozen groupers were above average from December through April and below average from June through August.

3.5 Social and Cultural Environment

Background

To understand the social and cultural environment of the wreckfish fishery, it is important to understand the history of the fishery. Past and present fishery participants contributed to the following descriptions of the wreckfish fishery and the wreckfish ITQ program.

Late 1980s and Early 1990s

In the late 1980s, a few fishermen began to target wreckfish about 50 miles offshore. The species, also called stone bass, inhabited areas about a mile under the surface of the water. According to shareholders contacted in an informal 2009 survey, because the species had never been targeted before in South Atlantic waters, the species was relatively easy to catch and harvests were large. Prior to participation in the wreckfish portion of the snapper grouper fishery, shareholders fished for shrimp, snapper grouper, sharks, swordfish, and/or tuna. These fishermen typically had larger vessels and so it was possible for these vessels to participate in the wreckfish fishery which requires a large vessel given its distance from land. During this time, shrimp yields were relatively low and the ex-vessel price for shrimp was low as well. Several boats re-rigged to switch from shrimping to fishing for wreckfish. Other people bought new boats specifically made for fishing for wreckfish. By 1991, more than 100 vessels were fishing for wreckfish in derby-like conditions. The derby may have been caused by an influx of shrimp boats, and/or interest from other fishermen to participate in a fishery with high yields from a ‘virgin’ stock, which would likely require less effort to harvest than other stocks that had already been heavily fished. In general, the ITQ eliminated the derby fishery. However, some wreckfish fishermen have commented that this would have happened anyway given how difficult the fishery is to prosecute.

During the derby, ex-vessel prices were lower than previously and it was sometimes difficult to move the wreckfish harvest due to the large size of total landings; there were market gluts. Average nominal prices received ranged from \$1.19 to \$1.88 per pound in the late 1980s and early 1990s (see **Table 3-2**). Shareholders noted that on a typical trip, 15,000-18,000 pounds of wreckfish were harvested.

Prior to implementation of the ITQ, several fishermen noticed that wreckfish were filled with roe in winter and early spring. A spawning season closure from January 15-April 15 was proposed and implemented by the South Atlantic Council. But in April of the year of the first spawning season closure, fishermen found the markets that had developed for wreckfish were no longer available due to the interruption caused by the three-month spawning season closure. Average ex-vessel prices decreased and harvests were harder to sell. Ex-vessel price, the ITQ eligibility requirements, initial allocation, the difficulty of harvesting wreckfish, and a rebound in the shrimp fishery⁵ contributed to a decline in the number of vessels participating in the fishery in the early 1990s after implementation of the ITQ.

⁵ At about the same time that the ITQ was implemented, the shrimp fishery improved and several vessels stopped fishing for wreckfish.

The general feeling among shareholders is that the wreckfish fishery is a very difficult fishery to prosecute and that many vessels left because there were easier and more profitable fisheries open to them. Some of the factors that make the wreckfish fishery difficult are:

- the location of the fishing grounds near the Gulf Stream;
- the distance of the fishing grounds offshore and the expense associated with the fuel required to travel to the fishing grounds and harvest; and
- the inability to locate fish with a fish finder because wreckfish do not have air bladders.

While some vessels remained in the fishery, in 2002 there was yet another drop in landings that appears to be at least partially due to the untimely deaths of three highliners along with additional shareholders who passed away at a later date. Since that time, the number of active participants has varied between two and four vessels each year, with a few additional participants in the past two years.

Wreckfish Shareholders

Currently the wreckfish fishery is made up of ITQ shareholders with varying degrees of participation since the start of the ITQ program. The fishery consolidated initially in the first few years and from the 1995/1996 season up to the present fishing year, there were 25 shareholders. Initial allocation of the shares designated 49 shareholders, of which over half were associated to vessels with home ports in Florida, and 11 of those in Duval County around Jacksonville and Mayport, Florida (**Table 3-7**). Seven permit holders with shares had home ports in South Carolina (mostly around Charleston), four in Georgia, and five were in North Carolina.

Table 3-7. Total number of shareholder accounts in each state during the first season of the ITQ program (1992-93), after consolidation in the first few years (1995-1996), and the most recent fishing year (2010-2011).

	1992/1993	1995/1996	2010/2011
Florida	26	18	17
Georgia	4	1	1
South Carolina	7	4	4
North Carolina	5	2	3
Outside the South Atl/Unknown	7	0	0
TOTAL	49	25	25

Data Source: NOAA Fisheries Service Southeast Regional Office, 8/10/2011

After the 1995/1996 fishing year, consolidation of the fleet—a result of share transfers—mostly stopped, and the distribution stabilized. One difference is that in the 1995/1996 fishing year, Volusia County (including Port Orange and New Smyrna) in Florida surpassed Duval County (Jacksonville and Mayport) having the most shareholders (8 in Volusia, 7 in Duval).

The wreckfish fishery now supports a niche market that employs one fisherman almost year round, one fisherman for most of the year, and two shareholders who participate every few years. Inactive shareholders are discussed later in this section.

Shareholders Actively Fishing for Wreckfish

A few fishermen have consistently reported wreckfish landings. Two of these fishermen are based in Charleston, South Carolina, including the largest operation. The wreckfish is purchased by a local fish house, sold to restaurants or consumers, and shipped to dealers around the U.S. In Charleston, wreckfish is not uncommon at local fine dining establishments during the fishing year. More recently there have been wreckfish sales to dealers in the Florida Keys, and additional transfers of shares to individuals in the Florida Keys. Because of the small number of participants, most years of landings data are confidential. For more information, see **Section 3.4**.

Shareholders Not Fishing for Wreckfish

Over time the number of shareholders actively participating in the fishery declined as fishermen targeted other species, retired, or passed away. At the end of the 2010/2011 fishing year, there were 19 shareholders who had not reported any wreckfish landings in the previous ten years. Most of these shareholders reside in Florida (14 out of 19), in Volusia and Duval Counties. Georgia and South Carolina have one shareholder, and North Carolina has three. Of these current 19 shareholders without landings, 12 are original allocations from the start of the ITQ program in 1992.

Current shareholders not fishing for wreckfish also fish for king mackerel, tuna, dolphin, swordfish, shark, shrimp, black sea bass, lobsters, and oysters. In an informal survey of shareholders in 2009, some shareholders reported that they were preparing to participate in the wreckfish fishery in the next fishing year in order to make up for revenue they expected to receive from fisheries they would be unable to participate in due to changes in regulations. Some mentioned that they would make more trips for wreckfish if they had a newer and larger vessel, if their physical health was better, and if their balance was better as it was when they were younger. Several shareholders were retired or planned to retire soon.

Dealers

There are 53 wreckfish dealer permits in the South Atlantic, and 25 of these are located in Florida (mostly Monroe County (Florida Keys) and Miami-Dade County). There is one dealer with a wreckfish dealer permit in Georgia (McIntosh County); five in South Carolina (Charleston, Georgetown and Horry Counties); and 8 in North Carolina (Beaufort, Dare and Carteret Counties). Additionally, 14 of the wreckfish dealer permits are registered in other states, including New York, New Jersey, Virginia, Maryland, Louisiana, and Texas. South Atlantic wreckfish are sold in Canada, Boston, New York, and Orlando, among other places. It is a substitute for grouper but has a market of its own as well. It is sold as “wreckfish” or “wreckfish grouper”.

In general, only two or three wreckfish dealers have purchased wreckfish in the past ten years, and these are in the Charleston area, Volusia County (Florida), and in the Florida Keys.

Active wreckfish fishermen note that the wreckfish market is a narrow and specialized market. Active wreckfish fishermen have had to cancel some trips in the past few years because it has been uncertain whether the wreckfish poundage brought to the dock can be moved. The fishermen have also stated that it is also sometimes uncertain whether they will get paid right away due to a cash shortage on the part of the fish house.

Another shareholder stated that recently, the market has been flooded with red grouper, which is a substitute for wreckfish, which has lowered prices. There is hope that the market for wreckfish might improve if red grouper harvest decreased and/or marketing improved.

Affected Communities

Detailed information about potential effects on communities associated with the snapper grouper fishery can be found in Jepson et al. (2005) and the Comprehensive ACL Amendment (SAFMC 2011). In general, the areas most associated with wreckfish are Charleston, South Carolina; Port Orange, Florida; and Key Largo, Florida. However, shareholders also live in the Jacksonville, Florida area, among other towns and communities along with South Atlantic coast.

3.6 Environmental Justice Considerations

Executive Order 12898 requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. This executive order is generally referred to as environmental justice (EJ).

To evaluate EJ considerations for the proposed actions, information on poverty and minority rates is examined at the county level. Information on the race and income status for groups at the different participation levels (vessel owners, crew, dealers, processors, employees, employees of associated support industries, etc.) is not available. Because the proposed actions would be expected to affect fishermen and associated industries in several communities along the South Atlantic coast and not just those profiled, it is possible that other counties or communities have poverty or minority rates that exceed the EJ thresholds.

In order to identify the potential for EJ concern, the rates of minority populations (non-white, including Hispanic) and the percentage of the population that was below the poverty line were examined. The threshold for comparison that was used was 1.2 times the state average for minority population rate and percentage of the population below the poverty line. If the value for the community or county was greater than or equal to 1.2 times the state average, then the community or county was considered an area of potential EJ concern. Census data for the year 2000 was used. Estimates of the state minority and poverty rates, associated thresholds, and community rates are provided in **Table 3-8**.

While some communities that may be affected by this proposed amendment have minority or economic profiles that exceed the EJ thresholds and therefore may constitute areas of concern, significant EJ issues are not expected to arise as a result of this proposed amendment. No adverse human health or environmental effects are expected to accrue due to this proposed amendment, nor are these measures expected to result in increased risk of exposure of affected individuals to adverse health hazards. The proposed management measures would apply to all participants in the affected area, regardless of minority status or income level, and information is not available to suggest that minorities or lower income persons are, on average, more dependent on the affected species than non-minority or higher income persons.

Table 3-8. Environmental Justice Thresholds (2000 U.S. Census data).

State	Community	Minority Rate	Minority Threshold*	Poverty Rate	Poverty Threshold*
Florida		34.60	41.52	12.50	15.00
	Cape Canaveral	8.10		11.60	
	Daytona Beach	39.7		23.6	
	Fernandina Beach	20.0		10.2	
	Jacksonville Beach	11.0		7.2	
	St. Augustine	20.7		15.8	
Georgia		37.40	44.88	13.00	15.60
	Townsend**	39.10		14.60	
South Carolina		33.90	40.68	14.10	16.92
	Little River	9.10		7.50	
North Carolina		29.80	35.76	12.30	14.76
	Atlantic City	2.60		7.30	
	Beaufort	25.40		16.60	
	Hatteras Village	6.60		10.00	
	Morehead City	19.20		14.60	
	Sneads Ferry	9.70		13.50	
	Wanchese	3.30		8.10	

*Calculated as 1.2 times the state rate.

**Values are for entire McIntosh County.

Among the communities examined, based on available demographic information, there are no EJ concerns. As noted above, however, there may be additional communities beyond those profiled that could be affected by the actions in this proposed amendment. Because these communities have not been profiled, the absence of additional potential EJ concerns cannot be assumed and the total number of communities that exceed the thresholds is unknown.

The actions in this proposed amendment are expected to incur social and economic benefits to users and communities by reverting inactive wreckfish shares, and redistributing them to fishermen who actively harvest wreckfish. Although some shareholders will lose shares without compensation, these shares have not contributed to the shareholders' income in several years, and they are not dependent on these shares.

Finally, the general participatory process used in the development of fishery management measures (e.g., scoping meetings, public hearings, and open South Atlantic Council meetings) is expected to have provided sufficient opportunity for meaningful involvement by potentially affected individuals to participate in the development process of this amendment and have their concerns factored into the decision process.

4 Environmental Effects

4.1 Action 1. Define and revert inactive wreckfish shares.

Alternative 1: No Action. Do not define or revert inactive shares for redistribution.

Alternative 2: Define inactive shares as shares belonging to any ITQ shareholder who has not reported wreckfish landings between April 16, 2009, and January 14, 2011, and revert inactive shares for redistribution among active shareholders.

Alternative 3 (Preferred): Define inactive shares as shares belonging to any ITQ shareholder who has not reported wreckfish landings between April 16, 2006, and January 14, 2011, and revert inactive shares for redistribution among active shareholders.

4.1.1 Biological Effects

The following biological effects analysis assumes that the proposed commercial annual catch limit (ACL) for wreckfish included in the amended proposed rule for the Comprehensive ACL Amendment (SAFMC 2011), will be approved by the Secretary of Commerce. Defining and reverting inactive wreckfish shares, independent of the other actions in this amendment, would not result in direct biological effects, such as increasing or decreasing the amount of harvest, compared to the status quo. However, if the reverted shares are redistributed to other shareholders (Action 2) who are assumed to be more likely to actively fish the shares, some indirect biological effects would result. Therefore, the biological effects analysis for this action takes into account the likely scenario in which the South Atlantic Council would choose to redistribute reverted shares to active commercial participants in the wreckfish portion of the snapper grouper fishery. Otherwise, simply defining inactive shares and reverting those shares are largely administrative actions.

Under **Alternative 1 (No Action)**, inactive shares would remain with their current shareholders and thus, may or may not be utilized for harvesting wreckfish. The ACL for the commercial sector for wreckfish in the Comprehensive ACL Amendment amended proposed rule is 223,250 pounds whole weight (ww), compared to the previous 2 million pound (ww) commercial quota. This new harvest limit would result in a significant (89%) reduction in the amount of pounds associated with each share, including inactive shares. As a result, if inactive shares are not reverted it is likely that harvest would only reach approximately 130,735⁶-160,338⁷ pounds (ww), after applying the proposed ACL. If the historical wreckfish fishing practices among active and inactive shareholders were to persist,

⁶ Obtained by multiplying 0.5856 x 223,250, where the former is the percentage of shares held by current active shareholders under **Alternative 2** in **Action 1**.

⁷ Obtained by multiplying 0.7182 x 223,250 where the former is the percentage of shares held by the current active shareholders under **Alternative 3** in **Action 1**.

Alternative 1 (No Action) could result in biological benefits in the form of reduced fishing mortality when compared to **Alternatives 2 and 3 (Preferred)**.

According to the 2010 Status of Fisheries (NMFS 2010) wreckfish are not undergoing overfishing and their overfished status is unknown. Landings by the seven active shareholders during the 2010/2011 fishing year were 257,320 pounds (ww) (**Table 3-2**), well under the 2 million pound (ww) quota. Currently, wreckfish have not been declared overfished or undergoing overfishing, and it is not necessary to restrict harvest in the commercial sector below the proposed commercial ACL of 223,250 pounds (ww). The Comprehensive ACL Amendment (SAFMC 2011) also proposes to set optimum yield (OY) equal to the ACL, which for both sectors combined is 235,000 pounds (ww). **Section 1.4** contains a detailed description of the South Atlantic Council process to specify the proposed ACL.

Out of 20 wreckfish shareholders, currently there are either 14 inactive shareholders (**Alternative 2**), or 13 inactive shareholders (**Alternative 3 (Preferred)**) holding shares that would be redistributed among a group of 6 or 7 remaining active wreckfish shareholders. **Table 4-1** illustrates the number of shares that would be reverted based on individual transferable quota (ITQ) shareholders who have no reported wreckfish landings during the 2009/2010 and 2010/2011 fishing years (**Alternative 2**) or had no landings during the 2006/2007, 2007/2008, 2008/2009, 2009/2010, and 2010/2011 fishing years (**Alternative 3 (Preferred)**).

Table 4-1. Inactive shares held by ITQ shareholders with no landings during the time periods specified under each alternative.

	Number of Active Shareholders	Percentage of Shares Held by Active Shareholders	Number of Inactive Shareholders	Percentage of Shares Held by Inactive Shareholders
Alternative 2	6	58.56%	14	41.44%
Alternative 3 (Preferred)	7	71.82%	13	28.18%

Data source: NOAA Fisheries Service Southeast Regional Office

Alternative 2 would result in a total of 41.44% of the existing wreckfish shares being reverted and made available for redistribution under Action 2. **Alternative 3 (Preferred)** would result in 28.18% of existing shares being reverted. Compared to the status quo, **Alternatives 2 and 3 (Preferred)** are likely to result in the greatest level of fishing harvest in the commercial sector assuming all redistributed shares under each alternative would result in 100% of the shares being fished. Inactive shares taken from current wreckfish permit holders under **Alternatives 2 and 3 (Preferred)** would remove the opportunity to fish for wreckfish for those individuals unless they were to obtain shares via transfer in the future. Although opportunities to fish for wreckfish would no longer be available for inactive shareholders as defined under this action, those fishing opportunities would be transferred to active shareholders under Action 2. Because the shares that were previously unfished would be transferred to those who are more likely to fish them, a small indirect biological impact could

be expected from this action in the form of increased fishing mortality. However, ACLs and accountability measures, which are proposed in the Comprehensive ACL Amendment and its amended proposed rule, would prevent the commercial harvest from exceeding the 223,250 pound (ww) proposed commercial ACL.

Defining inactive shares, and reverting them for redistribution, would have no immediate biological impact on target or non-target species, or essential fish habitat; however, it would result in indirect biological effects by freeing up currently unused shares to be fished in the future. If the South Atlantic Council chooses to redistribute shares (Action 2) that are not currently being fished, the probability of bycatch associated with commercial wreckfish fishing could increase. However, there is very little bycatch in the wreckfish portion of the snapper grouper fishery and, the mortality rate of any released fish is likely to be 100% because wreckfish are typically harvested in waters deeper than 984 ft (300 m) (Machias et al. 2003; SAFMC 1991). Fish caught in deep water have a higher mortality rate than fish caught in shallower depths. Bycatch when targeting wreckfish with hook and line gear typically consists of deepwater finfish species such as barrelfish (*Hyperoglyphe perciformis*) and red bream (*Beryx decadactylus*) (Goldman and Sedberry 2011; NMFS 2001).

The action to define inactive wreckfish shares and revert those shares for redistribution would not directly increase or decrease the current level of fishing mortality, which would ultimately be limited by the previously discussed proposed in-season accountability measures to maintain commercial harvest at or below 223,250 pounds (ww), nor would it modify the gear types used in the wreckfish portion of the snapper grouper fishery. Additionally, fishing practices for the harvest of wreckfish would not be modified under this action in ways not considered in previous evaluations of effects to protected species; therefore, no increased risk to sea turtles, other protected species, essential fish habitat, or habitat areas of particular concern is expected from this action.

4.1.2 Economic Effects

Under **Alternative 1 (No Action)**, no quota shares would be defined as inactive and reverted for redistribution. Thus, the distribution of shares between the current⁸ 20 shareholders would be expected to continue in the future. Statistics regarding that distribution are presented in **Table 4-2**. These estimates indicate that the current minimum quota share held by a shareholder is 0.06%, the maximum quota share is 20.63%, the mean quota share is 5%, and the median quota share is 3.4%. Because the median is significantly less than the mean and the standard deviation is relatively large compared to the mean, these statistics indicate a highly skewed distribution of quota shares. Specifically, 13 shareholders own less than 5%, four shareholders own between 5% and 10%, two shareholders own between 10% and 15%, and one shareholder owns more than 20% of the quota shares.

⁸ As of November 17, 2011.

Assuming that shareholders who have recently been active continue to be active in the commercial wreckfish component of the snapper grouper fishery, and those who have been inactive continue to be inactive, this distribution would be expected to result in commercial landings between 130,735 and 160,338 pounds (ww), depending on the time period chosen for determining whether a shareholder is active or inactive. In turn, between 62,912 and 92,515 pounds (ww) of landings are expected to be foregone as a result, again depending on the time period chosen for determining whether a shareholder is active or inactive. Given an average price of \$2.96/pound (ww)⁹ in the 2010/2011 fishing year, the expected loss in annual gross revenue to the commercial sector is estimated to be between \$186,220 and \$273,844 under **Alternative 1 (No Action)**, or between \$26,603 on average for the 7 shareholders active in two most recent fishing years (i.e., 2009/2010 and 2010/2011) and \$45,641 on average for the 6 shareholders active in the five most recent fishing years (i.e., 2006/2007 through 2010/2011). Consistent with previous information, these estimates reflect a loss of potential gross revenue in the commercial sector between 28.18% and 41.44% relative to a distribution of quota shares that would allow the entire commercial quota of 223,250 pounds (ww) to be harvested by active shareholders. These losses in gross revenue are expected to lead to a loss in profits as well. However, cost data for the active wreckfish vessels is not presently available and thus the potential loss in profits to the commercial sector and the active shareholders' vessels cannot be estimated.

On the other hand, by not defining some quota shares as inactive and redistributing those quota shares to active shareholders, all shareholders will be allowed to retain their current quota shares. Based on currently available transfer price data between the 2009/2010 and 2011/2012 fishing years,¹⁰ the market value of a 1% share of quota is estimated to be \$6,407 on average,¹¹ or approximately \$0.32/pound. This estimate must be used with some caution as it is based on only 10 share transfer transactions. Further, this estimate is based on buyers and sellers assuming the historical 2 million pounds (ww) commercial quota in their negotiations, and the associated allocation of pounds that would come with the shares under that quota. Assuming the quota was reduced to 223,250 pounds (ww), or by 89%, the allocation associated with those quota shares would be proportionally reduced. In turn, the expected stream of future income associated with that reduced allocation is expected to decrease significantly as well, leading to a reduction in the market value of those quota shares.

Based on the information in **Table 4-2** and the information above, the total market value of all quota shares is estimated to be approximately \$640,700. On a per shareholder basis, the minimum market value of a shareholder's current quota shares is \$384 while the maximum market value of a shareholder's current quota shares is approximately \$132,176. The mean

⁹ All prices, values, and revenues are in 2009 dollars.

¹⁰ Based on share transfer price data compiled on August 24, 2011. No share transfers occurred between 1999 and 2008 and share transfer prices before 1999 are likely not reflective of current market conditions.

¹¹ The average in this case is a mean value.

market value of a shareholder's current quota shares is approximately \$32,035 while the median market value is approximately \$21,784. Given the skewed distribution of quota shares, the median value is likely more representative of the "average" value.

Table 4-2. All shareholder statistics for **Alternative 1 (No Action)** under **Action 1.**

Number of Shareholders	20
Minimum Share per Shareholder	0.06%
Maximum Share per Shareholder	20.63%
Total Shares	100.0%
Median Share per Shareholder	3.40%
Mean Share per Shareholder	5.00%
Standard Deviation	5.28%

Data source: NOAA Fisheries Service Southeast Regional Office

Under **Alternative 2**, some quota shares would be defined as inactive and reverted for redistribution to shareholders determined to be active. Statistics regarding the six shareholders and 14 shareholders determined to be active and inactive, respectively, under **Alternative 2** are presented in **Table 4-3** and **Table 4-4**, respectively. These estimates indicate that the current minimum quota share held by an active shareholder is 3.51%, the maximum quota share is 20.63%, the mean quota share is 9.76%, and the median quota share is 9.03%. For inactive shareholders, the current minimum quota share held by an inactive shareholder is 0.06%, the maximum quota share is 13.25%, the mean quota share is 2.96%, and the median quota share is 1.89%. Thus, while there are fewer active than inactive shareholders, the active shareholders are much more vested in the commercial wreckfish component of the snapper grouper fishery, as illustrated by the fact that the minimum, maximum, and average share held by active shareholders are considerably greater than the estimates for inactive shareholders.

Table 4-3. Active shareholder statistics for **Alternative 2** under **Action 1.**

Number of Shareholders	6
Minimum Share per Shareholder	3.51%
Maximum Share per Shareholder	20.63%
Total Shares	58.56%
Median Share per Shareholder	9.03%
Mean Share per Shareholder	9.76%
Standard Deviation	5.85%

Data source: NOAA Fisheries Service Southeast Regional Office

Table 4-4. Inactive shareholder statistics for **Alternative 2** under **Action 1.**

Number of Inactive Shareholders	14
Minimum Share Reverted per Shareholder	0.06%
Maximum Share Reverted per Shareholder	13.25%
Total Shares Reverted	41.44%
Median Share Reverted per Shareholder	1.89%
Mean Share Reverted per Shareholder	2.96%
Standard Deviation	3.56%

Data source: NOAA Fisheries Service Southeast Regional Office

The 14 shareholders who are inactive in the commercial wreckfish component of the snapper grouper fishery would not incur any losses in wreckfish landings or gross revenue. Most of these shareholders (12) have not been active in any commercial fisheries and thus appear not to be involved in commercial fishing at all. However, two of these inactive shareholders did have commercial landings and gross revenue from other fisheries in 2009 and 2010. The extent to which these shareholders were involved in other fisheries differs greatly, as one was only minimally involved and the other significantly involved in other commercial fisheries.¹² The loss of wreckfish shares under **Alternative 2** is not expected to affect the current operations of these two shareholders' vessels, though it would take away the option of fishing for wreckfish in the future. Technically, the loss of shares would also prevent these shareholders from leasing their coupons. However, as no coupons have been leased by inactive nor active shareholders since 1995, this loss is not considered to be "real" economically and is therefore discounted.

Based on the average market value of a 1% share, the total loss of quota share to these 14 shareholders is estimated to be valued at approximately \$265,506, or about \$18,965 per shareholder. If the median quota share per shareholder is used, then the "average" loss per shareholder would be approximately \$12,110. These losses represent a loss in asset value or wealth as opposed to profits or income. Because information on these shareholders' wealth is not available, it is not possible to determine the economic significance of these losses to them.

It should be noted that "value" in the context used in the previous paragraph, and as subsequently used for **Alternative 3 (Preferred)** in the discussion below and throughout this section and appendices is based on the market price of shares and, therefore, is not equivalent to estimates of change in annual gross revenue. For example, as previously discussed, the expected loss in annual gross revenue to the commercial sector is estimated to range from \$186,220 to \$273,844. In the previous paragraph, the expected change in value as a result of **Alternative 2** is \$265,506 whereas, as discussed below, the comparable figure for **Alternative 3 (Preferred)** is \$180,582. Despite the similarity in the estimates (\$186,220-\$273,844 versus \$180,582-\$265,506), they represent different economic concepts, i.e., the value of shares versus the amount of annual revenues, and should not be confused.

The six active shareholders would not experience any direct economic effects under **Alternative 2**, but would be expected to experience indirect economic benefits since the intent of this alternative is to redistribute the inactive shares to the active shareholders. The active shareholders would not only benefit from the increased value of their assets, but would also benefit because of the expected increase in their wreckfish landings, gross revenue, and profits, relative to **Alternative 1 (No Action)**. In turn, the seven vessels used by these shareholders to harvest their annual allocations would also benefit as a result of the expected

¹² In order to protect confidential data, estimates of their annual gross revenue are not provided.

increase in their wreckfish landings and gross revenue.¹³ Similarly, the five active dealers who bought wreckfish in 2010 would also be expected to receive indirect economic benefits, as their sales of wreckfish would be expected to increase relative to what they would be under **Alternative 1 (No Action)**.

Under **Alternative 3 (Preferred)**, some quota shares would be defined as inactive and reverted for redistribution to shareholders determined to be active. Statistics regarding the 7 shareholders determined to be active and 13 determined to be inactive under **Alternative 3 (Preferred)** are presented in **Table 4-5** and **Table 4-6**, respectively. These estimates indicate that the current minimum quota share held by an active shareholder is 3.51%, the maximum quota share is 20.63%, the mean quota share is 10.26%, and the median quota share is 9.07%. For inactive shareholders, current minimum quota share held by an inactive shareholder is 0.06%, the maximum quota share is 7.31%, the mean quota share is 2.17%, and the median quota share is 1.79%. As under **Alternative 2**, while there are fewer active than inactive shareholders, the active shareholders are much more vested in the commercial wreckfish component of the snapper grouper fishery, as illustrated by the fact that the minimum, maximum and average share held by active shareholders are considerably greater than the estimates for inactive shareholders.

Table 4-5. Active shareholder statistics for **Alternative 3 (Preferred)** under **Action 1**.

Number of Shareholders	7
Minimum Share per Shareholder	3.51%
Maximum Share per Shareholder	20.63%
Total Shares	71.82%
Median Share per Shareholder	9.07%
Mean Share per Shareholder	10.26%
Standard Deviation	5.50%

Data source: NOAA Fisheries Service Southeast Regional Office

Table 4-6. Inactive shareholder statistics for **Alternative 3 (Preferred)** under **Action 1**.

Number of Inactive Shareholders	13
Minimum Share Reverted per Shareholder	0.06%
Maximum Share Reverted per Shareholder	7.31%
Total Shares Reverted	28.18%
Median Share Reverted per Shareholder	1.79%
Mean Share Reverted per Shareholder	2.17%
Standard Deviation	2.06%

Data source: NOAA Fisheries Service Southeast Regional Office

¹³ Although most shareholders use one vessel to harvest their allocation, one shareholder has used two vessels in recent years.

The 13 shareholders who are inactive would not incur any losses in wreckfish landings or gross revenue. Most of these shareholders (11) have not been active in any commercial fisheries and thus appear not to be involved in commercial fishing at all. However, two of these inactive shareholders did have commercial landings and gross revenue from other fisheries between 2006 and 2010. The extent to which these shareholders were involved in other fisheries differs greatly, as one was only minimally involved and the other significantly involved in other commercial fisheries.¹⁴ The loss of wreckfish shares under **Alternative 3 (Preferred)** is not expected to affect the current operations of these two shareholders' vessels, though it would take away the option of fishing for wreckfish in the future. Technically, the loss of shares would also prevent these shareholders from leasing their coupons. However, as no coupons have been leased by any shareholder since 1995, this loss is not considered to be "real" economically and is therefore discounted.

Based on the average market value of a 1% share, the total loss of quota share to these 13 shareholders is estimated to be valued at approximately \$180,582, or about \$13,890 per shareholder. If the median quota share per shareholder is used, then the "average" loss per shareholder would be approximately \$11,494. These losses represent a loss in asset value or wealth as opposed to profits or income. Because information on these shareholders' wealth is not available, it is not possible to determine the economic significance of these losses to them. However, the losses to inactive shareholders are less in total and on average under **Alternative 3 (Preferred)** than under **Alternative 2**.

The seven active shareholders would not experience any direct economic effects under **Alternative 3 (Preferred)**, but would be expected to economically benefit indirectly since the intent of this alternative is to redistribute the inactive shares to the active shareholders. The active shareholders would not only benefit from the increased value of their assets, but would also benefit due to the expected increase in their wreckfish landings, gross revenue, and profits, relative to **Alternative 1 (No Action)**. In turn, the eight vessels used by these shareholders to harvest their annual allocations would also benefit because of the expected increase in their wreckfish landings and gross revenue.¹⁵ Similarly, the five active dealers who bought wreckfish in 2010 would also be expected to experience indirect economic benefits, as their sales of wreckfish would be expected to increase relative to what they would be under **Alternative 1 (No Action)**.

In the aggregate, the magnitude of these indirect economic benefits to active shareholders and their vessels would be equivalent under **Alternative 2** and **Alternative 3 (Preferred)**. However, the distributional effects are likely to differ regardless of how shares from inactive shareholders are redistributed to active shareholders. Specifically, under **Alternative 2**, active shareholders from South Carolina control approximately 26% of the total shares held by all active shareholders, while they control about 40% of the total shares held by all active

¹⁴ In order to protect confidential data, estimates of their annual gross revenue are not provided.

¹⁵ Although most shareholders use one vessel to harvest their allocation, one shareholder has used two vessels in recent years.

shareholders under **Alternative 3 (Preferred)**. Conversely, active shareholders from Florida control approximately 74% of the total shares held by all active shareholders under **Alternative 2**, while they control about 60% of the total shares held by all active shareholders under **Alternative 3 (Preferred)**. Thus, these indirect economic benefits to active shareholders and their vessels in Florida would likely be greater under **Alternative 2**, while such benefits would likely be greater to active shareholders and their vessels in South Carolina would be greater under **Alternative 3 (Preferred)**.

With respect to indirect economic effects on wreckfish dealers, the primary effects would also be distributional in nature. In order to avoid disclosing confidential information, the nature of these distributional effects is only discussed in geographical terms. Specifically, the primary effect of the various alternatives would be to shift landings and sales of wreckfish between dealers in Florida and dealers in South Carolina. In recent years, approximately 80% of landings and sales of wreckfish have occurred in South Carolina with the other 20% occurring in Florida. In general, active shareholders sell to dealers in the state from which they operate. Thus, the geographic distribution of active shareholders generally predicts the geographic distribution of the landings and sales of wreckfish. Given that approximately 26% of the shares held by active shareholders operate from South Carolina while the other 74% is held by active shareholders operating from Florida under **Alternative 2**, a significant shift in the distribution of landings and sales of wreckfish from South Carolina to Florida dealers could occur. Conversely, given that approximately 40% of the shares will be held by active shareholders that operate from South Carolina while the other 60% will be held by active shareholders operating from Florida, the potential shift in the distribution of landings and sales of wreckfish from South Carolina to Florida dealers would be noticeably less under **Alternative 3 (Preferred)**.

4.1.3 Social Effects

Effects from fishing regulations on the social environment are difficult to analyze due to complex human-environment interactions and a lack of quantitative data about those interactions. Generally, social effects can be categorized according to changes in: human behavior (what people do), social relationships (how people interact with one another), and human-environment interactions (how people interact with other components of their environment, including enforcement agents and fishery managers). It is generally accepted that a positive correlation exists between economic effects and social effects. Thus, in **Section 4.1.2**, alternatives predicting positive or negative economic effects are expected to have correlating positive or negative social effects.

The amended proposed rule for the Comprehensive ACL Amendment (SAFMC 2011) proposes to significantly reduce the commercial sector's amount of possible harvest of wreckfish. Amendment 20A is therefore driven by the need to adjust the distribution of wreckfish shares in order to remove latent effort from the commercial sector and allow the commercial sector's ACL to be harvested and thereby achieve OY. This would be expected to allow for the continued participation of active shareholders, captains, crew, and wreckfish dealers. However, since the initial drafting of Amendment 20A, there have been a number of transfers of inactive shares (as well as active) to active shareholders which have resulted in a change in distribution of the shares.

Alternative 1 (No Action) would be expected to result in the most negative social effects. The commercial sector of the wreckfish portion of the snapper grouper fishery currently includes 20 shareholders and has included fewer than 9 active shareholders in recent years (fishing years 2006/2007-2010/2011). The annual pounds of wreckfish quota received by these active shareholders would be reduced with the amended proposed 2012 ACL by 89%. If the inactive shares are not redistributed to active shareholders it is assumed that the amount of wreckfish being fished and delivered would also be reduced by the same percentage. This loss in pounds of landings and revenue has been detailed in **Section 4.1.2**. This extreme reduction in catch and landings would be expected to negatively impact active shareholders, captains, crew members, and dealers who depend on wreckfish production. As expressed in public testimony at the August 2011 South Atlantic Council meeting, this loss in active shareholders' catch would cause a difficulty in making a living from one's wreckfish involvement.

During the years 2006/2007 to 2010/2011, a total of 7 dealers have been involved in wreckfish production; however, a large portion of these landings have been delivered in a few communities. The communities with the largest portion of wreckfish landings, Wadmalaw Island, South Carolina, and Port Orange, Florida, would likely be the most affected by a reduction in landings if **Alternative 1 (No Action)** is selected. Ripple effects such as the closure of a dealer resulting from a loss in income from wreckfish could possibly occur and impact other fishermen who depend on that particular dealer for the delivery of their product.

In addition, **Alternative 1 (No Action)** is potentially inconsistent with Magnuson-Stevens Act National Standard 8, which require that conservation and management measures take into account the importance of fishery resources to fishing communities in order to provide for the sustained participation of those communities and, to the extent practicable, minimize adverse economic impacts on such communities.

Conversely, **Alternative 1 (No Action)** would be expected to result in some positive social effects in that inactive shareholders would retain their shares and would have the choice to fish, sell, or lease their shares in the future. Based on an informal survey of wreckfish shareholders in 2009, shareholders were aware that they could sell shares and coupons but did not have buyers, and some were waiting for the stock to rebound to sell, lease, or fish the wreckfish shares and coupons. Some inactive shareholders may still be relying on their shares for future use and **Alternative 1 (No Action)** would continue to allow this option.

Alternative 2 and **Alternative 3 (Preferred)** are the most socially beneficial because these alternatives revert inactive shares to active shareholders and could allow most shareholders to continue participation at a level comparable to the current harvest under the TAC of 2 million pounds. These two alternatives would be expected to benefit active shareholders and wreckfish dealers, and only differ in terms of one shareholder's shares being reverted because of the landings years considered (**Alternative 2** includes 14 inactive shareholders and 6 active shareholders; whereas **Alternative 3 (Preferred)** includes 13 inactive shareholders and 7 active). **Table 4-1** in **Section 4.1.1** details this difference showing that

Alternative 2 would redistribute 41.44%; whereas, **Alternative 3 (Preferred)** would redistribute 28.18% to active shareholders. If the larger percentage of shares in **Alternative 2** were to be redistributed to the remaining shareholders, this would be expected to benefit the rest of the remaining participants to a larger degree in that a larger portion of the shares would be distributed to these remaining participants.

Although the shareholder that would be considered inactive under **Alternative 2**, but not under **Alternative 3 (Preferred)**, has not fished his quota in the recent years, it could be assumed that this shareholder would likely fish the quota in the future because of the reduction in the amended proposed ACL. However this shareholder could also decide to not fish the quota. The difference in the two socially beneficial **Alternatives 2 and 3 (Preferred)** is based on one shareholder. It would be in this shareholder's best interest and would be expected to provide the most benefits for the individual if the individual was included as an active shareholder and **Alternative 3 (Preferred)** is selected; however, the benefits to the remaining shareholders would be expected to be greater if **Alternative 2** is selected.

As discussed in **Section 4.1.2**, the distribution of shares and distribution of landings to dealers (because shareholders generally sell their catch to dealers in the area/state in which they reside) would likely change based on whether **Alternative 2** or **Alternative 3 (Preferred)** is selected. The difference between the two alternatives is that **Alternative 2** would revert 13.26% more of shares (from one individual who likely delivered and is assumed would continue to deliver to a dealer in their same area) than **Alternative 3 (Preferred)**. If this one shareholder is excluded from active status under **Alternative 2**, fewer pounds of landings would likely be delivered to the dealer in that area. Although, after redistribution some of the reverted shares would be redistributed to that area by whatever method is selected in Action 2. As detailed in **Section 4.1.2**, benefits to active shareholders and their vessels in South Carolina would likely be greater under **Alternative 3 (Preferred)** and benefits to active shareholders and their vessels in Florida would likely be greater under **Alternative 2**.

Alternatives 2 and 3 (Preferred) would also be expected to cause some negative social effects by removing the ability of those shareholders deemed inactive to utilize their shares in the future. Inactive shareholders whose shares are reverted would not have the option to fish, sell, or lease their shares in the future, and thus would have fewer options if fishing for their primary species were to change and they were in need of a fall-back plan.

4.1.4 Administrative Effects

Alternative 1 (No Action) would not result in any direct administrative effects because it would not require any action on behalf of the South Atlantic Council in deciding how to allocate reverted shares or by NOAA Fisheries Service Southeast Regional Office (SERO) in conducting the transfer of reverted shares from inactive shareholders for redistribution. However, in the long term, allowing the inactive shares to remain unused could lead to unnecessary under-capitalization of the commercial wreckfish component of the snapper grouper fishery. Action 1 is largely administrative in nature and would require NOAA Fisheries Service to revert inactive shares for redistribution via a method chosen under

Action 2. Initially, the set of shareholders would be bound by the time series under either **Alternative 2** or **Alternative 3 (Preferred)**. Those who hold inactive shares under **Alternative 2** or **Alternative 3 (Preferred)** have been notified of their inactive shareholder status and the South Atlantic Council's proposed decision to revert those shares for redistribution.

Currently, regulations include a freeze on share transfers between February 15 and April 15 of every year. In order to establish a stable set of shares and shareholders, it may be necessary to implement an additional freeze on share and/or coupon transfers on a specific date for a period of time not to exceed 45 days. During this freeze on share transfers, NOAA Fisheries Service would establish the final percentage of shares to be redistributed and would redistribute those shares according to the method chosen under Action 2 of this amendment. In the short-term, the greater the number of reverted shares, the greater the administrative burden. Therefore, **Alternative 2** is likely to result in greater short-term administrative effects than **Alternative 3 (Preferred)**; however, none of the options under consideration are expected to significantly affect the administrative environment. In the long term, there would be fewer shareholders in the fishery, and therefore, the administrative burden would be less than under the status quo situation. Overall, the process of determining the number of shares to be reverted, and reverting inactive shares would require a minimal to moderate short-term increase in administrative effort when compared to the status quo **Alternative 1 (No Action)**.

4.1.5 Council Conclusions

The Snapper Grouper Advisory Panel (AP) recommended that the South Atlantic Council invalidate the wreckfish ITQ program and treat the fishery as an open access fishery within the snapper grouper program. The AP did not have a specific recommendation for this action.

The Social and Economic Panel (SEP) of the Scientific and Statistical Committee (SSC) reviewed the action. The SEP strongly opposes reverting inactive shares and recommended that if shares are going to be reverted, then the SEP suggests auctioning off the shares and giving the money back to the original shareholders. The SSC concurred with the SEP's recommendations.

The Law Enforcement Advisory Panel reviewed the action but had no specific recommendations.

The South Atlantic Council selected **Alternative 3** as the preferred alternative. **Alternative 3 (Preferred)** defines inactive shares as those shares held by individuals who have not reported wreckfish landings at any time from April 16, 2006, through January 14, 2011. Shares of thirteen wreckfish shareholders would be designated as inactive and reverted for redistribution to seven remaining shareholders. The estimated percentage of shares that would be defined as inactive would be 28.18%.

Although there have been only two or three active participants in the wreckfish commercial fishery for several years, in more recent years there have been additional participants who

have purchased wreckfish shares and reported wreckfish landings. With implementation of the 2012 ACL, if approved, the active participants would not be allocated enough annual pounds to maintain operation size or would have to purchase or lease additional shares. Under **Alternative 3 (Preferred)**, active participants would be allocated inactive shares and continue fishing, and latent effort could be minimized. **Alternative 3 (Preferred)** would allow for more of the recent participants to retain shares and to be eligible to receive shares from redistribution. The South Atlantic Council had also considered other time periods of ten years during development of the amendment, but analysis showed that many shareholders who had not reported landings within the past five years had also not reported landings in the past ten years. The South Atlantic Council felt that if an individual had not reported wreckfish landings in the past five fishing years, then **Alternative 3 (Preferred)** would not put anyone out of the fishery who had been a recent active participant.

The South Atlantic Council concluded **Alternative 3 (Preferred)** best meets the purpose and need to implement measures expected to achieve optimum yield (OY) while minimizing, to the extent possible, adverse social and economic effects. The preferred alternative also best meets the objectives of the Snapper Grouper Fishery Management Plan, as amended, while complying with the requirements of the Magnuson-Stevens Act (including National Standard 1) and other applicable law.

4.2 Action 2. Redistribute reverted shares to remaining shareholders.

Alternative 1: No Action. Do not redistribute reverted shares.

Alternative 2: Redistribute reverted shares to remaining shareholders based on 50% equal allocation + 50% landings history.

Option a: total wreckfish landings from April 16, 2009, through January 14, 2011.

Option b: total wreckfish landings from April 16, 2006, through January 14, 2011.

Alternative 3 (Preferred): Redistribute reverted shares to remaining shareholders based on landings history.

Option a: total wreckfish landings from April 16, 2009, through January 14, 2011.

Option b (Preferred): total wreckfish landings from April 16, 2006, through January 14, 2011.

Alternative 4: Redistribute reverted shares based on proportion of remaining shares held by each remaining shareholder after inactive shares are reverted.

Note: Landings in pounds (ww) will be determined based on wreckfish logbook records submitted to the Southeast Fisheries Science Center (SEFSC).

4.2.1 Biological Effects

The following biological effects analysis assumes that the commercial wreckfish ACL contained in the amended proposed rule for the Comprehensive ACL Amendment (SAFMC 2011) will be approved by the Secretary of Commerce. **Alternative 1 (No Action)** would not redistribute reverted inactive shares to active wreckfish shareholders and those shares would not be used for the purposes of harvesting the wreckfish commercial ACL.

Alternative 1 (No Action) would likely result in an unnecessary reduction in fishing opportunities caused by a decrease in annual pounds associated with each share due to a significantly reduced commercial quota that would be implemented through the amended proposed rule for the Comprehensive ACL Amendment (SAFMC 2011). Currently, there is no biological reason to restrict harvest to a level below the proposed commercial ACL of 223,250 pounds (ww), as the 2010 Status of Fisheries (NMFS 2010) states that wreckfish are not undergoing overfishing and their overfished status is unknown. Under **Alternative 1 (No Action)**, it is likely that only between 130,735 and 160,338 pounds (ww) of wreckfish would be landed during the 2012/2013 fishing year assuming the currently inactive shares remain unfished. All other alternatives would theoretically result in some level of increased fishing harvest among the current active shareholders, and would thus result in increased harvest limited only by the proposed commercial ACL of 223,250 pounds (ww) and the poundage associated with the total shares held by each entity. Because the proposed commercial ACL in the amended proposed rule for the Comprehensive ACL Amendment (SAFMC 2011), if approved, is scheduled to be implemented prior to implementation of Amendment 20A, the commercial sector would be limited to harvest at or below the commercial ACL regardless of how many inactive shares are redistributed to any one active shareholder. Additionally, the share cap chosen under Action 3 may limit the number of reverted shares that are actually

redistributed to any one entity. For example, if one individual already held 40% of wreckfish shares and the South Atlantic Council chose a share cap of 49%, regardless of which redistribution option the South Atlantic Council chooses, that individual would only be allowed to receive the number of shares equal to or less than 9% of the total reverted shares.

Because the amended proposed rule for the Comprehensive ACL Amendment, if approved, would restrict harvest to the new commercial ACL, the determination as to how reverted shares would be redistributed among current active shareholders has more socioeconomic and administrative implications than direct biological effects. However, because the inactive shares were not fished within recent years, and because it is assumed that under this action they would be actively fished, some minor biological effects may result in the form of increased fishing mortality. At the most, fishing mortality could be 62,912¹⁶-92,515 pounds (ww) more than what harvest would be if the South Atlantic Council were to take no action in this amendment before the 2012/2013 fishing year. However, harvest would still be limited to the proposed commercial ACL of 223,250 pounds (ww) if approved, which is considerably lower than the 257,320 pounds (ww) harvested during the 2010/2011 fishing year (**Table 3-2**); thus, no direct biological impacts beyond the status quo are expected as a result of this action.

Alternative 2 is the most complex of the alternatives considered. Shares that would be reverted to SERO for redistribution under Action 1 of this amendment would be calculated based on 50% of what each active shareholder's allocation would be if all inactive shares were distributed equally among active shareholders, plus 50% of each active shares holder's landings history (individual landings under the chosen time series would be totaled and compared to the total landings for the entire time series for the wreckfish component of the snapper grouper fishery to determine what percentage the individual's total landings are), under **Alternative 2, Option a** and **Alternative 2, Option b**.

Overall, the difference in the percentage of shares redistributed to each entity under **Options a and b** of **Alternative 2** is negligible (**Table 4-7**); therefore, there is likely to be no difference in the level of fishing mortality between the two **Alternative 2** options. Additionally, the total percentage of shares to be redistributed is 41.44% based on Alternative 2 in Action 1 or 28.18% based on Alternative 3 in Action 1. Regardless of how those shares are allocated among the active participants in the wreckfish component of the snapper grouper fishery, the total number of redistributed shares would not change, limiting effort to the total percentage of shares issued to each shareholder.

Because landings data are confidential for wreckfish, only the number of reverted shares that would be distributed can be shown. Fifty percent of reverted shares (20.72% based on Alternative 2 under Action 1, and 14.09% based on Alternative 3 (Preferred) in Action 1)

¹⁶ These numbers were calculated by subtracting the expected landings under Action 1 Alternative 1 (No Action) from the proposed commercial ACL, 223,250-160,338 pounds (ww) = 62,912 pounds (ww), and 223,250-130,735 pounds (ww) = 92,515 pounds ww.

divided by the 6 or 7 active shareholders would either be 3.45% or 2.96%, if Alternative 2 under Action 1 is chosen as the preferred; or 2.35% or 2.01% if Alternative 3 (Preferred) in Action 1 is chosen as the preferred, respectively. Each person would receive the rest of the reverted shares based on 50% of their landings histories depending upon the option chosen for **Alternative 2** (Table 4-7).

Table 4-7. Percentage of reverted shares redistributed to each active shareholder in addition to the shares they already hold under each **Alternative 2** option.

Reverted Shares Based on Action 1, Alternative 2		
Active Shareholder Designated Under Action 1. Alternative 2	% of Reverted Shares Redistributed Under Action 2. Alternative 2. Option a.	% of Reverted Shares Redistributed Under Action 2. Alternative 2. Option b.
A	3.51	0.09
B	7.47	11.49
C	5.43	5.38
D	4.13	3.25
E	17.34	21.09
F	3.55	0.14
Reverted Shares Based on Action 1, Alternative 3 (Preferred)		
Active Shareholder Designated Under Action 1. Alternative 3 (Pref)	% of Reverted Shares Redistributed Under Action 2. Alternative 2. Option a.	% of Reverted Shares Redistributed Under Action 2. Alternative 2. Option b.
A	2.05	2.03
B	4.75	4.55
C	3.36	3.20
D	2.47	2.73
E	11.46	6.66
F	2.08	2.04
G	2.01	6.97

Data source: NOAA Fisheries Service Southeast Regional Office

Regardless of how reverted shares are distributed under **Alternative 2** of this action, the commercial wreckfish sector as a whole would be limited to harvest levels at or below the 223,250 pound (ww) commercial ACL in the amended proposed rule for the Comprehensive ACL Amendment (SAFMC 2011), which is 34,070 pounds (ww) less than the commercial sector's harvest of wreckfish during the 2010/2011 fishing season. Therefore, adverse biological effects on essential fish habitat such as gear interactions with bottom habitat, overharvest of target species, and bycatch of non-target species, that could result from this action would be expected to be negligible. If the proposed commercial ACL were exceeded repeatedly, the South Atlantic Council and NOAA Fisheries Service would be required to reassess the system of ACLs and accountability measures (AMs) for the wreckfish component of the snapper grouper fishery, and make adjustments as needed.

Alternative 3 (Preferred) would redistribute reverted shares based on landings histories only. Those currently active shareholders with larger landings histories would account for a larger percentage of the total landings for wreckfish during the chosen time series and thus, would receive the greatest number of reverted shares (**Table 4-8**). As stated previously, the number of inactive shares distributed to each active shareholder would have to result in a total share holding less than or equal to the share cap chosen by the South Atlantic Council under Action 3 of this amendment. Therefore, each shareholder would be limited to holding shares at or below the share cap level. The biological effects of **Alternative 3 (Preferred)** would be similar to those under **Alternative 2** for the same reasons given above. No significant biological effects, such as substantial increases in fishing mortality above the status quo, are expected to result from redistributing reverted shares to active shareholders based on landings histories.

Table 4-8. Percentage of reverted shares redistributed to each active shareholder in addition to the shares they already hold under each **Alternative 3 (Preferred)** option.

Reverted Shares Based on Action 1. Alternative 2		
Active Shareholder Designated Under Action 1. Alternative 2.	% of Reverted Shares Redistributed Under Action 2. Alternative 3. Option a.	% of Reverted Shares Redistributed Under Action 2. Alternative 3. Option b (Preferred)
A	0.12	3.50
B	8.04	9.20
C	3.95	6.14
D	1.35	5.08
E	27.78	14.00
F	0.19	3.53
Reverted Shares Based on Action 1 Alternative 3 (Preferred)		
Active Shareholder Designated Under Action 1. Alternative 3 (Pref)	% of Reverted Shares Redistributed Under Action 2. Alternative 3. Option a.	% of Reverted Shares Redistributed Under Action 2. Alternative 3. Option b (Preferred)
A	0.08	0.04
B	5.47	5.07
C	2.69	2.37
D	0.92	1.43
E	18.90	9.30
F	0.13	0.06
G	0.00	9.91

Data source: NOAA Fisheries Service Southeast Regional Office

Alternative 4 would redistribute shares proportionally among all active shareholders. In other words, those active shareholders who hold the most shares currently would receive the greatest number of reverted shares until the share cap is reached. Under **Alternative 4**, if Alternative 2 under Action 1 is chosen as the preferred alternative, shareholder C would receive 14.60 % of the reverted shares, and 8.10 % of the reverted shares if Alternative 3 (Preferred) under Action 1 is maintained as the preferred alternative (**Table 4-9**). In either

case, shareholder C would receive the largest percentage of reverted shares, while shareholder A would receive the lowest percentage of reverted shares based on this proportionate redistribution method (**Table 4-9**). However, if this redistribution method results in reverted shares being given to any one active shareholder in excess of the share cap chosen by the South Atlantic Council under **Action 3** of this amendment, that active shareholder would not receive excess shares that would result in the entity exceeding the share cap.

Distributing the reverted shares proportionately among shareholders would result in the biggest shareholders receiving the largest portion of reverted shares (**Table 4-9**). Assuming the largest active shareholders are the most likely to fish all shares they own because they are the most active participants, **Alternative 4** may have the potential to have slightly higher biological implications for the species, in the form of increased fishing mortality up to the proposed ACL, when compared to **Alternatives 2 and 3 (Preferred)**. However, because overall harvest would be limited by the proposed system of ACLs and AMs included in the Comprehensive ACL Amendment (SAFMC 2011) and its amended proposed rule, if approved, significant increases in fishing mortality of wreckfish or bycatch in the wreckfish component of the snapper grouper fishery over the status quo would not be expected.

Table 4-9. Percent of reverted shares redistributed to each active shareholder in addition to the shares they currently hold under **Alternative 4**.

Reverted Shares Based on Action 1. Alternative 2.	
Active Shareholder Designated Under Action 1, Alternative 2	% of Reverted Shares Redistributed Under Action 2, Alternative 4
A	2.49
B	4.37
C	14.60
D	7.21
E	6.42
F	6.36
Reverted Shares Based on Action 1. Alternative 3 (Preferred).	
Active Shareholder Designated Under Action 1, Alternative 3 (Preferred)	% of Reverted Shares Redistributed Under Action 2, Alternative 4
A	1.38
B	2.42
C	8.10
D	4.00
E	3.56
F	3.53
G	5.20

Data source: NOAA Fisheries Service Southeast Regional Office

A summary of redistributed shares gained by shareholders under each alternative for **Action 2** and the total percentage of shares that would result after redistribution is shown in **Table 4-10**.

It is important to note that wreckfish are very widely distributed and are considered data deficient. Only the United States and New Zealand currently regulate fisheries for wreckfish through management measures such as gear prohibitions and seasonal closures. Furthermore, the exact source of pelagic juveniles and true extent of other unknown stocks and stock sizes in U.S. waters is unknown, which makes estimating the current wreckfish population extremely difficult (Sedberry et al. 1999). Fishing pressure on those juvenile populations in European waters is apparent since European fish hooks are often found in wreckfish caught in U.S. waters (Sedberry et al. 1999). Other types of fishing pressure on the source stock of juveniles such as pelagic tuna drift-net fishing in the north Atlantic may also impact the adult population of wreckfish harvested in the Mid-Atlantic and Southeast Regions of the U.S. (Sedberry et al. 1999). Given this information, the action to redistribute unused shares is not likely to significantly add to or detract from the current management and biological uncertainties and thus is not likely to jeopardize the sustainability of the South Atlantic wreckfish population.

Effects on Endangered Species Act (ESA)-listed species under this action are expected to be minimal. **Alternative 1 (No Action)** is the most biologically beneficial of all the alternatives considered relative to potential gear interactions with protected species since fishing effort would be limited to the number of actively fished shares and poundage limits associated with them. If the South Atlantic Council were to choose **Alternative 1 (No Action)** as the preferred alternative, under the proposed commercial ACL of 223,250 pounds (ww), it is expected that commercial harvest would be between 130,735 and 160,388 pounds (ww) after applying the proposed ACL in the Comprehensive ACL Amendment amended proposed rule, which is significantly less than what was harvested during the 2010/2011 fishing year. For this reason, **Alternative 1 (No Action)** is considered the most biologically beneficial alternative in terms of reducing the risk to protected species and coral habitat of particular concern; however, there is no biological reason to intentionally restrict harvest to a level lower than the proposed commercial ACL.

Redistributing inactive shares among the active shareholders may increase fishing harvest from an individual fisherman; however, the significant reduction in allowable catch from the 2010/2011 fishing year suggests that total harvest in the wreckfish sector is likely to decrease or remain relatively stable under the newly proposed commercial ACL. Due to this anticipated decrease in overall wreckfish fishing harvest an increased risk to sea turtles, or any other protected species from this action is not anticipated.

Table 4-10. Summary of redistributed shares gained by shareholders under each alternative for **Action 2**, and the total percentage of shares that would result after redistribution.

Reverted Share Distribution Scenarios Under Action 1 Alternative 2					
Shareholder	Alt. 2, Option a. (% of shares redistributed/total shares after redistribution)	Alt. 2, Option b. (% of shares redistributed/total shares after redistribution)	Alt. 3, Option a. (% of shares redistributed/total shares after redistribution)	Alt. 3, Option b (Pref). (% of shares redistributed/total shares after redistribution)	Alt. 4. (% of shares redistributed/total shares after redistribution)
A	3.51/7.02	0.09/3.60	0.12/3.63	3.50/7.01	2.49/6.00
B	7.47/13.64	11.49/17.66	8.04/14.22	9.20/15.37	4.37/10.54
C	5.43/26.06	5.38/26.01	3.95/24.58	6.14/26.77	14.60/35.23
D	4.13/14.32	3.25/13.44	1.35/11.55	5.08/15.27	7.21/17.40
E	17.34/26.42	21.09/30.17	27.78/36.86	14.00/23.07	6.42/15.50
F	3.55/12.53	0.14/9.13	0.19/9.17	3.53/12.51	6.36/15.34
G	N/A	N/A	N/A	N/A	N/A
Reverted Share Distribution Scenarios Under Action 1 Alternative 3 (Preferred)					
Shareholder	Alt. 2, Option a. (% of shares redistributed/total shares after redistribution)	Alt. 2, Option b. (% of shares redistributed/total shares after redistribution)	Alt. 3, Option a. (% of shares redistributed/total shares after redistribution)	Alt. 3, Option b (Pref). (% of shares redistributed/total shares after redistribution)	Alt. 4. (% of shares redistributed/total shares after redistribution)
A	2.05/5.56	2.03/5.54	0.08/3.59	0.04/3.55	1.38/4.89
B	4.75/10.92	4.55/10.72	5.47/11.64	5.07/11.24	2.42/8.60
C	3.36/23.99	3.20/23.83	2.69/23.32	2.37/23.00	8.10/28.72
D	2.47/12.67	2.73/12.92	0.92/11.11	1.43/11.62	4.00/14.19
E	11.46/20.53	6.66/15.74	18.90/27.97	9.30/18.38	3.56/12.62
F	2.08/11.06	2.04/11.03	0.13/9.11	0.06/9.05	3.53/12.51
G	2.01/15.27	6.97/20.22	0.00/13.25	9.91/23.16	5.20/18.46

Data source: NOAA Fisheries Service Southeast Regional Office

4.2.2 Economic Effects

Prior to analyzing the effects of the various alternatives under **Action 2** on the active shareholders, as defined under Alternative 2 and Alternative 3 (Preferred) for Action 1, some baseline information regarding these shareholders' commercial landings of and gross revenue from wreckfish and other species is presented in **Table 4-11** and **Table 4-12**. This information provides a reference point by which to evaluate the effects of the various alternatives under **Action 2**.

The information in these tables conveys several important insights. First, in general, considerable variation exists between active shareholders with respect to their level of participation in the commercial wreckfish component of the snapper grouper fishery, other commercial fisheries, and commercial fishing in general, regardless of whether "active" is defined under Alternative 2 and Alternative 3 (Preferred) for Action 1. Some active shareholders are not active in the commercial wreckfish component of the snapper grouper fishery or any other commercial fishery in certain years, and thus have no dependence on commercial landings of wreckfish or other species in those years. Other active shareholders have some dependence on wreckfish, but are generally more dependent on commercial landings from other species. One or two active shareholders are heavily involved and dependent on landings of wreckfish.

Table 4-11. Annual landings and gross revenue statistics for six active shareholders under Action 1, Alternative 2 for fishing years 2006/2007 through 2010/2011.¹⁷

Statistic	Wreckfish Landings (pounds ww)	Wreckfish Gross Revenue	Non-wreckfish Gross Revenue	Gross Revenue	Percentage of Gross Revenue from Wreckfish
Median	8,713	\$21,355	\$87,724	\$117,144	22.77
Mean	25,706	\$66,036	\$109,453	\$175,490	38.06
Standard Deviation	43,042	\$114,282	\$128,007	\$138,358	40.30

Source: SERO using SEFSC wreckfish logbook and ALS data.

Further, these statistics indicate that the shareholders defined as being "active" under Alternative 3 (Preferred) for Action 1 are, on average, more heavily involved in and dependent on wreckfish landings relative to the active shareholders under Alternative 2 (Preferred) for Action 1. In turn, the active shareholders under Alternative 2 (Preferred) for Action 1 are less involved and dependent on commercial landings of other species. However, total gross revenue from all commercial fishing is approximately the same for

¹⁷ Although Alternative 2 under Action 1 is based on landings in fishing years 2009/2010 through 2010/2011, data from fishing years 2006/2007 through 2010/2011 were used in order to properly compare the landings and gross revenue of active shareholders under Alternative 2 with those under Alternative 3 (Preferred).

active shareholders under Alternative 2 as for active shareholders under Alternative 3 (Preferred) for Action 1.

Table 4-12. Annual landings and gross revenue statistics for seven active shareholders under Action 1, Alternative 3 (Preferred) for fishing years 2006/07 through 2010/2011.

Statistic	Wreckfish Landings (pounds ww)	Wreckfish Gross Revenue	Non-wreckfish Gross Revenue	Gross Revenue	Percentage of Gross Revenue from wreckfish
Median	9,201	\$22,591	\$29,587	\$126,224	35.64
Mean	32,804	\$82,085	\$90,582	\$172,668	44.94
Standard Deviation	48,199	\$123,618	\$123,410	\$137,974	42.78

Source: SERO using SEFSC wreckfish logbook and ALS data.

Tables 4-7 through 4-9 provide information regarding the distribution of additional shares and “final” shares under the alternatives for **Action 2**, where “final” shares equal initial shares plus additional shares, to active shareholders as defined under Alternative 2 and Alternative 3 (Preferred) for Action 1. **Table 4-13** and **Table 4-14** provide some illustrative statistics regarding the distribution of reverted and final shares. These statistics illustrate the following findings.

First, the minimum additional (i.e., redistributed) and final shares for any active shareholder occur under **Alternative 3b (Preferred)** regardless of whether active is defined under Alternative 2 or Alternative 3 (Preferred) for Action 1 (**Table 4-14**). On the other hand, in general, the maximum additional and final shares for any active shareholder occurs under **Alternative 3a**, although the maximum final share assuming Alternative 3 (Preferred) for Action 1 actually occurs under **Alternative 4**. In addition, the median additional shares are largest under **Alternative 4** and smallest under **Alternative 3b (Preferred)** and particularly **Alternative 3a**. Also, the largest differences between the median and mean additional and final shares, and in turn the largest standard deviations, occur under **Alternative 3b (Preferred)** and particularly **Alternative 3a**. Conversely, the smallest differences between the median and mean values and the smallest standard deviations occur under **Alternative 4** and **Alternative 2b**.

These findings show that, while additional and final shares are distributed most equally under **Alternative 4** and final shares are distributed most equally under **Alternative 2b**, additional and final shares are distributed most unequally under **Alternative 3a**, and **Alternative 3b (Preferred)** to a lesser extent, on a per shareholder basis.¹⁸ The distributions of additional and final shares under **Alternative 2a** are between these two extremes. These outcomes

¹⁸ A shareholder and an individual are not necessarily the same as a single individual may be a partial or full owner of more than one share certificate. Thus, results at the individual level may differ.

directly reflect the difference between using landings histories as the sole criterion for redistributing reverted shares to active shareholders as opposed to using share distributions or a combination of landings histories and equal allocations. As can be seen in comparing the share distribution information in **Tables 4-2** and **4-3** with the landings distribution information in **Tables 4-13** and **4-14**, the distribution of landings is much less equally distributed than the distribution of shares among active shareholders, regardless of whether active is defined under Alternative 2 or Alternative 3 (Preferred) for Action 1.

With respect to the economic benefits accruing to active shareholders, all active shareholders would receive some economic benefit under all alternatives for **Action 2**, regardless of whether active is defined under Alternative 2 or Alternative 3 (Preferred) for Action 1, with the exception of one shareholder (shareholder G) under **Alternative 3a** assuming Alternative 3 (Preferred) for Action 1. Again, the main difference is that the distribution of those economic benefits differs significantly under the various alternatives for **Action 2**. As illustrated in **Tables 4-15** and **4-16**, in the long-term, these economic benefits are in the form of an increase in the value of each shareholder's shares, which would increase according to the amount of additional shares each shareholder receives under each alternative. As previously noted, the market value of a 1% share is estimated to be \$6,407.

The differences in the distribution of long-term economic benefits directly depend on the differences in the amount of additional shares each shareholder receives under each alternative. Thus, the most equal distributions of long-term economic benefits occur under **Alternative 4** and **Alternative 2b**, while the most unequal distributions of long-term economic benefits occur under **Alternative 3a**, and **Alternative 3b (Preferred)** to a lesser extent, on a per shareholder basis. The distribution of long-term economic benefits under **Alternative 2a** is between these two extremes. The largest long-term economic benefits to a single shareholder occur under **Alternative 3a** regardless of whether active is defined under Alternative 2 or Alternative 3 (Preferred) for Action 1.

As illustrated in **Tables 4-17** and **4-18**, in the short-term, increases in economic benefits would take the form of an increase in annual gross revenue.¹⁹ These increases would directly depend on the increase in each shareholder's annual allocation of wreckfish, which in turn results from the increase in wreckfish shares. It is assumed that active shareholders would harvest all of their annual allocation, which is reasonable given the significant reduction in the commercial quota due to proposed actions in the Comprehensive ACL Amendment. Thus, as with the distribution of additional shares and long-term economic benefits, the most equal distributions of short-term economic benefits occur under **Alternative 4** and **Alternative 2b**, while the most unequal distributions of short-term economic benefits occur under **Alternative 3a**, and **Alternative 3b (Preferred)** to a lesser extent, on a per shareholder basis. The distribution of short-term economic benefits under **Alternative 2a** is between these two extremes. The largest short-term economic benefits to a single

¹⁹ Changes in gross revenue are based on an average price of \$2.96/lb (ww) in the 2010/11 fishing year.

shareholder occur under **Alternative 3a** regardless of whether active is defined under Alternative 2 or Alternative 3 (Preferred) for Action 1.

It is worth noting that, on average, the additional long-term and short-term economic benefits accruing to active shareholders is the same for each alternative under **Action 2** and regardless of whether active is defined under Alternative 2 or Alternative 3 (Preferred) for Action 1. This fact underscores the point that choosing an alternative under **Action 2** is based on equity considerations rather than economic efficiency.

With respect to indirect economic effects on wreckfish dealers, the primary economic effect would be to maintain the total level of landings and sales of wreckfish. Assuming the active shareholders harvest all of their annual allocations, then landings and sales of wreckfish would likely be close to their levels in the last two fishing years. Thus, wreckfish dealers would equally benefit under all alternatives for **Action 2**, with the exception of **Alternative 1 (No Action)**. **Alternative 1 (No Action)** would generate adverse, indirect economic effects on wreckfish dealers by not promoting the total harvest of the commercial quota.

Some indirect economic effects on wreckfish dealers would also be distributional in nature. In order to avoid disclosing confidential information, the nature of these distributional effects is discussed in geographical terms. Specifically, the primary distributional effect of the various alternatives under **Action 2** would be to shift landings and sales of wreckfish between dealers in Florida and dealers in South Carolina. As previously discussed, in recent years, approximately 80% of landings and sales of wreckfish have occurred in South Carolina with the other 20% occurring in Florida. Further, under Alternative 2 for Action 1, approximately 26% of the shares is held by active shareholders operating from South Carolina, while the other 74% is held by active shareholders operating from Florida. Conversely, under Alternative 3 (Preferred) for Action 1, approximately 40% of the shares is held by active shareholders operating from South Carolina, while the other 60% is held by active shareholders operating from Florida. Thus, a potentially significant shift in the distribution of landings and sales of wreckfish from South Carolina to Florida dealers could occur depending on whether and how shares are redistributed under **Action 2**.

Assuming either Alternative 2 or Alternative 3 (Preferred) for Action 1, approximately 40% of the shares would be held by active shareholders operate from South Carolina, while the other 60% would be held by active shareholders operating from Florida, under **Alternative 4** for **Action 2**. Thus, **Alternative 4** would not change the likely distribution of landings and sales of wreckfish between South Carolina and Florida dealers from what it would be without any redistribution of shares (i.e., **Alternative 1 (No Action)**). **Alternative 2a** and **Alternative 2b** would generate a 47%/53% distribution of shares between active shareholders in South Carolina and Florida. Further, **Alternative 3a** and **Alternative 3b (Preferred)** would generate a 53%/47% distribution of shares between active shareholders in South Carolina and Florida. Thus, while **Alternative 2a** and **Alternative 2b** would shift the distribution of landings and sales of wreckfish more closely to its recent distribution between South Carolina and Florida dealers, relative to the distribution under **Alternative 1 (No Action)**, either **Alternative 3a** and **Alternative 3b (Preferred)** would come the closest to maintaining that distribution.

Table 4-13. Shareholder statistics for all alternatives under Action 2 assuming Action 1, Alternative 2.

Statistic	Additional Shares Alt 2a	Final Shares Alt 2a	Additional Shares Alt 2b	Final Shares Alt 2b	Additional Shares Alt 3a	Final Shares Alt 3a	Additional Shares Alt 3b (Pref)	Final Shares Alt 3b (Pref)	Additional Shares Alt 4	Final Shares Alt 4
Minimum Share	3.51	7.02	3.50	7.01	0.12	3.63	0.09	3.60	2.49	6.00
Maximum Share	17.34	26.42	14.00	26.77	27.78	36.86	21.09	30.17	14.60	35.23
Total Shares	41.44	100.00	41.44	100.00	41.44	100.00	41.44	100.00	41.44	100.01
Median Share	4.78	13.98	5.61	15.32	2.65	12.88	4.31	15.55	6.39	15.42
Mean Share	6.91	16.67	6.91	16.67	6.91	16.67	6.91	16.67	6.91	16.67
Standard Deviation	5.33	7.85	4.06	7.17	10.66	12.07	8.13	10.08	4.14	9.99

Source: SERO using SEFSC wreckfish logbook and ALS data.

Table 4-14. Shareholder statistics for all alternatives under **Action 2** assuming Action 1, Alternative 3 (Preferred).

Statistic	Additional Shares Alt 2a	Final Shares Alt 2a	Additional Shares Alt 2b	Final Shares Alt 2b	Additional Shares Alt 3a	Final Shares Alt 3a	Additional Shares Alt 3b (Pref)	Final Shares Alt 3b (Pref)	Additional Shares Alt 4	Final Shares Alt 4
Minimum Share	2.01	5.56	2.03	5.54	0.00	3.59	0.04	3.55	1.38	4.89
Maximum Share	11.46	23.99	6.97	23.83	18.90	27.97	9.91	23.16	8.10	28.72
Total Shares	28.18	100.00	28.18	100.00	28.18	100.00	28.18	100.00	28.18	100.00
Median Share	2.47	12.67	3.20	12.92	0.92	11.64	2.37	11.62	3.56	12.63
Mean Share	4.03	14.29	4.03	14.29	4.03	14.29	4.03	14.29	4.03	14.29
Standard Deviation	3.43	6.25	2.09	6.19	6.85	8.45	4.17	7.42	2.16	7.66

Source: SERO using SEFSC wreckfish logbook and ALS data.

Table 4-15. Change in shareholders' value of shares for all alternatives under **Action 2** assuming Action 1, Alternative 2.

Shareholder	Alt 2a	Alt 2b	Alt 3a	Alt 3b (Pref)	Alt 4
A	\$22,495	\$22,405	\$743	\$564	\$15,923
B	\$47,889	\$58,918	\$51,532	\$73,589	\$27,988
C	\$34,790	\$39,360	\$25,333	\$34,473	\$93,526
D	\$26,459	\$32,531	\$8,672	\$20,815	\$46,210
E	\$111,127	\$89,693	\$178,007	\$135,140	\$41,141
F	\$22,733	\$22,586	\$1,219	\$926	\$40,733

Source: SERO using SEFSC wreckfish logbook and ALS data.

Table 4-16. Change in shareholders' value of shares for all alternatives under **Action 2** assuming Action 1, Alternative 3 (Preferred).

Shareholder	Alt 2a	Alt 2b	Alt 3a	Alt 3b (Pref)	Alt 4
A	\$13,150	\$13,022	\$505	\$249	\$8,830
B	\$30,421	\$29,126	\$35,047	\$32,457	\$15,521
C	\$21,512	\$20,500	\$17,229	\$15,204	\$51,866
D	\$15,846	\$17,488	\$5,898	\$9,181	\$25,626
G	\$12,897	\$44,631	\$0	\$63,465	\$33,325
E	\$73,430	\$42,701	\$121,061	\$59,605	\$22,815
F	\$13,312	\$13,101	\$829	\$408	\$22,589

Source: SERO using SEFSC wreckfish logbook and ALS data.

Table 4-17. Shareholders' annual wreckfish allocation and change in gross revenue for all alternatives under **Action 2** assuming Action 1, Alternative 2. Allocation estimates are in whole weight.

Shareholder	Initial Allocation	Allocation Alt 2a	Allocation Alt 2b	Allocation Alt 3a	Allocation Alt 3b (Pref)	Allocation Alt 4	Gross Rev. Alt 2a	Gross Rev. Alt 2b	Gross Rev. Alt 3a	Gross Rev. Alt 3b (Pref)	Gross Rev. Alt 4
A	8,341	15,679	15,648	8,099	8,037	13,389	\$23,201	\$23,109	\$766	\$581	\$16,423
B	14,661	30,468	34,311	31,737	39,423	23,534	\$49,393	\$60,768	\$53,151	\$75,899	\$28,867
C	48,992	58,174	59,767	54,879	58,064	78,641	\$35,882	\$40,596	\$26,129	\$35,555	\$96,463
D	24,206	31,973	34,089	25,775	30,007	38,855	\$27,290	\$33,553	\$8,944	\$21,469	\$47,661
E	21,551	58,980	51,511	82,284	67,347	34,593	\$114,617	\$92,510	\$183,597	\$139,384	\$42,433
F	21,337	27,978	27,927	20,482	20,379	34,250	\$23,447	\$23,295	\$1,258	\$955	\$42,012

Source: SERO using SEFSC wreckfish logbook and ALS data.

Table 4-18. Shareholders' annual wreckfish allocation and change in gross revenue for all alternatives under **Action 2** assuming Action 1, Alternative 3 (Preferred). Allocation estimates are in whole weight.

Shareholder	Initial Allocation	Allocation Alt 2a	Allocation Alt 2b	Allocation Alt 3a	Allocation Alt 3b (Pref)	Allocation Alt 4	Gross Rev. Alt 2a	Gross Rev. Alt 2b	Gross Rev. Alt 3a	Gross Rev. Alt 3b (Pref)	Gross Rev. Alt 4
A	8,341	12,423	12,378	8,017	7,927	10,917	\$13,563	\$13,431	\$521	\$256	\$9,108
B	14,661	24,381	23,930	25,993	25,091	19,190	\$31,377	\$30,041	\$36,147	\$33,476	\$16,009
C	48,992	53,548	53,195	52,055	51,350	64,125	\$22,188	\$21,143	\$17,770	\$15,682	\$53,495
D	24,206	28,275	28,847	24,809	25,953	31,683	\$16,344	\$18,037	\$6,083	\$9,469	\$26,431
G	31,478	34,084	45,141	29,590	51,704	41,202	\$13,302	\$46,033	\$0	\$65,458	\$34,372
E	21,551	45,844	35,137	62,441	41,027	28,208	\$75,736	\$44,042	\$124,863	\$61,476	\$23,532
F	21,337	24,695	24,622	20,346	20,199	27,928	\$13,730	\$13,513	\$855	\$421	\$23,298

Source: SERO using SEFSC wreckfish logbook and ALS data.

4.2.3 Social Effects

Alternative 1 (No Action) would not redistribute reverted shares to active wreckfish participants and would be expected to result in the same negative social effects as those described for Action 1, Alternative 1 (No Action).

All other alternatives and options would be expected to result in positive social effects as they would redistribute the reverted shares to active shareholders with the difference between the remaining alternatives and options being in the redistribution method. These alternatives and options are reliant on the alternatives selected in Action 1 (Alternative 2 of Action 1 would include the redistribution of 41.44% of shares to 6 shareholders; whereas Alternative 3 (Preferred) of Action 1 would include the redistribution of 28.18% of shares to 7 shareholders).

Tables 4-7 through 4-9 in Section 4.2.1 detail the extent to which each individual shareholder would benefit under Alternatives 2 and 3 from Action 1 and **Alternatives 2-4** of this action. The percentage of reverted shares that would be redistributed to each active shareholder and their total shares after redistribution under the various alternatives and options are summarized in **Table 4-10**. The economic benefits received by these shareholders at the individual level are detailed in **Section 4.2.2** and the change in gross revenue of individual shareholders under Alternatives 2 and 3 in Action 1 and **Alternatives 2-4** of this action are included in **Tables 4-17 and 4-18**. The differences in the various alternatives and actions on individual shareholders are evident from the material provided in these tables and sections including the percentage of shares redistributed to each shareholder, total shares held after redistribution, and gross revenue received.

Because of confidentiality issues, the communities in which these individual shareholders reside cannot be identified; therefore for this section a general description of which type of active shareholders would benefit is included.

Alternative 2 has a high likelihood of being perceived as a fair redistribution method and thus being more socially acceptable because of its mixed method which would revert shares to remaining shareholders based on 50% equal allocation plus 50% landings history.

Alternative 2, Option a would redistribute reverted shares to remaining shareholders based on 50% equal allocation plus 50% landings history from April 16, 2009 through January 14, 2011 and would be expected to benefit shareholders that are new to the wreckfish component of the snapper grouper fishery and do not have extensive landings histories; whereas

Alternative 2, Option b would redistribute reverted shares to remaining shareholders based on 50% equal allocation plus 50% landings history from April 16, 2006 through January 14, 2011 and would be expected to benefit shareholders with a longer landing history, but would also include those active shareholders who have recently entered the fishery.

If Alternative 2 were chosen as the preferred alternative under Action 1 of this amendment, shareholders A, C, D, and F would benefit more under **Option a**, whereas shareholders B and E would benefit more under **Option b (Table 4-10)**. If Alternative 3 (Preferred) is maintained as the preferred alternative under Action 1, shareholders A, B, C, E, and F would

benefit more under **Option a** than they would under **Option b**. Under **Option b**, shareholders D, and G, would benefit more.

As with **Alternative 2**, **Option a** under **Alternative 3 (Preferred)** would be expected to benefit shareholders that are new to the wreckfish portion of the snapper grouper fishery because this alternative would redistribute reverted shares to remaining shareholders based on landings history from April 16, 2009 through January 14, 2011. Conversely, **Option b (Preferred)** of **Alternative 3 (Preferred)** would be expected to benefit shareholders with a longer landing history because this alternative would redistribute reverted shares to remaining shareholders based on landings history from April 16, 2006 through January 14, 2011. Options under **Alternative 3 (Preferred)** have a high likelihood of being perceived as fair redistribution methods by shareholders with the longest and largest landings because they are based on past participation.

If Alternative 2 under Action 1 of this amendment were chosen as the preferred alternative, shareholder E would benefit the most under **Option a** of **Alternative 3 (Preferred)**. Under **Option b**, all other currently active shareholders would receive a greater percentage of the reverted shares than they would under **Option a**. If Alternative 3 (Preferred) under Action 1 is maintained as the preferred alternative, shareholders A, B, C, E, and F would each get a larger percentage of reverted shares than they would under Option b. Only shareholders D and G would receive a higher percentage of reverted shares than they would have under **Option a** of **Alternative 3 (Preferred)**. Under each scenario shareholder E would receive the largest percentage of reverted shares compared to all other currently active shareholders.

Alternative 4 would redistribute reverted shares based on proportion of remaining shares held by each remaining shareholder after inactive shares are reverted. Thus, **Alternative 4** would be expected to benefit shareholders who have recently purchased additional or new shares. Although, this alternative would not necessarily reflect past landings patterns, **Alternative 4** would be expected to provide protection and social benefits for shareholders who have recently invested in wreckfish through the purchase of additional shares.

4.2.4 Administrative Effects

Alternative 1 (No Action) would result in the lowest administrative burden of all the **Action 2** alternatives considered since it would require no increase in staff time or cost to redistribute reverted shares. **Alternative 2** would result in the greatest administrative burden in the form of staff time and cost to calculate the number of shares each currently active shareholder would receive and then distribute the shares accordingly. **Alternative 2** would require the greatest level of computation including 50% of equal allocation among active shareholders, as well as 50% of landings history. Once the number of shares to be received by each active shareholder is established, SERO would issue letters of explanation along with the redistributed share totals and corresponding coupons to each active shareholder receiving reverted shares. The administrative effects of **Alternative 3 (Preferred)** would be slightly less than **Alternative 2** since only one calculation would be required to determine how many shares each shareholder would receive. Under **Alternative 3 (Preferred)**, the landings for each shareholder during the selected time series would be totaled. That total would then be compared to the total landings for wreckfish during the same time. The proportion of the total landings that each active shareholder is responsible for would determine how many

reverted shares each shareholder would receive, up until the share cap established under **Action 3**. The same active shareholder notification process described under **Alternative 2** would follow once the number of redistributed shares is established.

Alternative 4 would result in an increase in cost and staff time burdens less than the administrative costs under **Alternative 3 (Preferred)**. Instead of basing redistribution on landings, SERO staff would be responsible for issuing the correct number of reverted shares based on the proportion of shares already held by each currently active shareholder. The number of shares held by each currently active shareholder would be calculated as a percentage of the number of total active shares held by all active shareholders. Active shareholders with the largest percentage of shareholdings would receive the largest proportion of reverted shares. The shareholder notification process would be the same as specified under **Alternatives 2 and 3 (Preferred)** where a letter would be sent to the active shareholders informing them of how many shares have been redistributed to them along with the coupons themselves. Under all of the redistribution alternatives, NOAA Fisheries Service will freeze transfers of shares and/or coupons in order to establish a stable set of active shareholders and the exact percentage of reverted shares to be redistributed. It should be noted that current regulations already prohibit share transfers from February 15 to April 15 each year. Participants would be notified via *Federal Register* notices announcing the availability of the amendment for comment, the availability of the proposed rule for comment, and of the final rule, if approved by the Secretary of Commerce. At each of these public comment phases for the amendment and associated proposed rule, fishery bulletins would be distributed to wreckfish fishery permit holders outlining the details of the amendment actions, and any planned freeze on share and/or coupon transfers.

When redistributing shares, the share cap chosen under Action 3 would need to be taken into account. If redistribution of reverted shares results in any entity exceeding the share cap the South Atlantic Council and SERO could choose not to redistribute any shares that would exceed the share cap. SERO could then redistribute those excess shares according to the preferred redistribution method chosen under this action to active shareholders who have not yet reached the share cap after redistribution.

4.2.5 Council Conclusions

The Snapper Grouper AP recommended that the South Atlantic Council invalidate the wreckfish ITQ program and treat the fishery as an open access fishery within the snapper grouper program. The AP did not have a specific recommendation for this action.

The SEP of SSC reviewed the action. The SEP strongly opposed reverting shares because they are transferable, and inactive participants can sell shares to active participants or new entrants. The SEP supports Council actions that would facilitate transfers. Reverting shares and redistributing shares would lessen economic value of the shares. The SSC concurred with the SEP's recommendations.

The Law Enforcement AP reviewed the action but had no specific recommendations.

The South Atlantic Council selected **Alternative 3, Option b** as the preferred alternative. **Alternative 3 (Preferred)** would allocate reverted shares to the seven remaining

shareholders based on total wreckfish landings from April 16, 2006, through January 14, 2011 (**Option b (Preferred)**). Because the proposed 2012 ACL would reduce the amount that the commercial sector could harvest by 89%, the South Atlantic Council wanted to redistribute shares to active participants so that it would be economically feasible to continue fishing. By selecting a redistribution method based on landings history, the South Atlantic Council felt that **Alternative 3, Option b (Preferred)** would be most likely of the alternatives to provide shares to active participants and to allow their harvest to be close as possible to their current levels.

The South Atlantic Council concluded **Alternative 3, Option b (Preferred)** best meets the purpose and need to implement measures expected to achieve OY while minimizing, to the extent possible, adverse social and economic effects. The preferred alternative also best meets the objectives of the Snapper Grouper FMP, as amended, while complying with the requirements of the Magnuson-Stevens Act (including National Standard 1) and other applicable law.

4.3 Action 3. Establish a share cap.

Alternative 1: No Action. Do not establish a share cap.

Alternative 2: Establish a share cap as 15% of the total shares.

Alternative 3: Establish a share cap as 25% of the total shares.

Alternative 4 (Preferred): Establish a share cap as 49% of the total shares.

Alternative 5: Establish a share cap as 65% of the total shares.

Alternative 6: Establish a share cap as the percentage of total shares held by the largest shareholder after redistribution.

Note: It is the South Atlantic Council's intent that NOAA Fisheries Service administratively prohibit transfers of wreckfish shares for the necessary amount of time, not to exceed 45 days, until the reverted shares are redistributed.

4.3.1 Biological Effects

Establishing a share cap is an ITQ management measure required by implementing provisions of the Magnuson-Stevens Act. The wreckfish ITQ program in the South Atlantic has not previously had a mechanism to ensure that limited access privilege holders do not acquire excessive shares of the total ITQs as required by the Magnuson-Stevens Act; therefore, Amendment 20A is addressing this mandate along with several other wreckfish shareholder issues. Under **Alternative 1 (No Action)**, a cap on shares would not be implemented and the wreckfish ITQ program would not comply with the Magnuson-Stevens Act mandates for limited access privilege programs. For this reason, **Alternative 1 (No Action)** is the least practical of all the alternatives considered, but would also result in no change to the biological environment from the status quo.

The level at which the South Atlantic Council chooses to cap total shares held by any one active shareholder would not be expected to impact the biological environment. Regardless of the level at which shares are capped, the commercial landings of wreckfish may not exceed the proposed commercial ACL of 223,250 pounds (ww) in the amended proposed rule for Comprehensive ACL Amendment (SAFMC 2011) without triggering corrective accountability measures, also proposed in the Comprehensive ACL Amendment (SAFMC 2011). Capping the number of shares held by a single active shareholder would not result in an increase or decrease in overall harvest of wreckfish in the commercial sector unless a large number of shares are held by relatively inactive fishermen who may not catch their allocated poundage. However, it is expected that any redistributed shares would be, for the most part, fished to their respective poundage limits in order to maximize yield among the current set of active shareholders. Based on this information, the establishment of a share cap is considered an administrative action with more socioeconomic implications than direct biological effects.

Alternative 2 is the lowest share cap alternative at 15%. If the South Atlantic Council maintains its choice of preferred alternatives under Actions 1 and 2 of this amendment, **Alternative 2** would not be a viable option as a share cap given that only six currently active individuals would have shares under both Alternative 2 and Alternative 3 (Preferred) for Action 1. If all individuals (as opposed to shareholders) are capped at 15%, it is not possible to reach 100% of the shares to be redistributed. Under **Alternative 3** (based on Action 1, Alternative 2), two active individuals would exceed the 25% share cap and those excess shares would be redistributed to the other four active shareholders. Based on Alternative 3 (Preferred) under Action 1, only one active individual would exceed the 25% share cap. **Alternative 4 (Preferred)** would prevent any one individual from holding the majority of wreckfish shares, and would result in no active individuals exceeding the share cap. **Alternative 5** represents the highest share percentage (65%) the South Atlantic Council is willing to consider under this action. **Alternative 6** would take into account the greatest number of shares held by any one individual after reverted shares are redistributed, so as to maintain a situation as close to status quo as possible. The maximum percentage of shares that could be redistributed to any one individual under **Alternative 6** is 44.1% based on **Alternative 2** under Action 1, and 41.54% based on **Alternative 3 (Preferred)** under Action 1. If the number of shares held by a shareholder decrease, which could happen under **Alternative 2** (15% share cap) and **Alternative 3** (25% share cap), those excess shares would be redistributed to other shareholders holding shares in amounts less than the cap according to the redistribution method chosen under Action 2 of this amendment. If excess shares would still be held after applying the share cap and a second round of redistribution, a third round of redistribution according to preferred alternative under **Action 2** would be applied. Regardless of how many shares each active shareholder ultimately holds after redistribution, all harvest would be limited to the proposed commercial ACL of 223,250 pounds (ww) if approved, and therefore biological effects of redistribution under **Alternatives 2, 3, and 4 (Preferred)**, would not result in significant biological effects, such as increased fishing mortality or decreases in overall biomass, bycatch of non-target species, or gear impacts on essential fish habitat.

Alternative 6 is the closest to the status quo in that it would allow the currently active shareholder holding the most shares to set the share cap. If this active shareholder were to acquire several more shares before the potential freeze on share transfers takes place the share cap could be higher than it would be under current conditions. However, as stated previously, the proposed commercial ACL for the wreckfish component of the snapper grouper fishery would be 223,250 pounds (ww) if the amended proposed rule for the Comprehensive ACL Amendment (SAFMC 2011) is approved for implementation by the Secretary of Commerce. If this ACL is projected to be met an in-season closure would take place to prevent the ACL from being exceeded. If the ACL is exceeded, AMs would be triggered to correct for the overage in the following fishing season. Therefore, regardless of how shares are allocated or how efficiently the wreckfish portion of the snapper grouper fishery is prosecuted once streamlined to include only active shareholders, overall fishing-related mortality of wreckfish would be constrained by the proposed commercial ACL.

Establishing a share cap is not likely to change fishing practices or modify the gear types used in the wreckfish component of the snapper grouper fishery in ways that might cause new effects to sea turtles not considered in previous evaluations of effects to protected

species. Additionally, overall fishing harvest would be limited to the proposed commercial ACL of 223,250 pounds (ww), if approved, which is a reduction from current harvest levels. Therefore, even if effort from an individual fisher increases, the reductions in total landings would likely lead to a reduction in total wreckfish fishing harvest; thus, an increased risk to sea turtles, or other protected species and habitat areas of particular concern from this action is not anticipated.

4.3.2 Economic Effects

Transferability of quota shares allows shareholders to buy, sell, give away, or lease their shares. Buying or selling an allocation is equivalent to leasing in the normal sense of the word. In general, the ability to transfer quota shares enhances the economic performance of the commercial wreckfish component of the snapper grouper fishery. It provides fishermen with a valuable asset and compensation if they choose to stop fishing for wreckfish, which may in turn strengthen fishermen's desire to conserve and protect the resource on which the quota shares is based.

Trading of shares encourages the evolution of efficient-sized firms. For maximum economic performance, the number and size of firms in an industry must adjust over time as technology and markets vary. This outcome can be accomplished through private transactions in financial capital, equipment, natural resources, and technology. Similarly, transferability of quota shares allows firms to accumulate shares to achieve a quantity and species mix consistent with a low cost, efficient operation. In general, shares are expected to shift to the more economically efficient operators. Transferability of shares is necessary to make long-term adjustments in each producer's output, for example when purchasing a new boat.

Finally, transferability also helps shareholders plan future transactions, and gives them an economic incentive to preserve the underlying source of value (i.e., the resource). For example, a run-down vessel will have less value when sold than will a well-maintained vessel. Similarly, a quota share will be more valuable if the fish stocks underlying it are in good shape. Thus, transferability encourages shareholders to consider the long-term consequences of their short-term harvesting activities on the value of their assets.

While transferability of harvesting privileges offers many potential advantages, a concentration of ownership can lead to at least two different types of issues. One issue is the creation of market power, including monopoly (a single seller) and/or monopsony (a single buyer). The issue of market power is not unique to catch share programs. A second issue is concentration of ownership can lead to undesired changes in the structure of the fishing community, broadly defined.

The concentration of quota shares can lead to different types of market power issues. First, an operator may obtain a significant amount of quota shares, which results in monopoly power with respect to the sale of fish products to the general consumer. The desire for monopoly profits will lead to an artificial reduction in output and an increase in prices to the consumer. In most cases, the threat of monopoly power in commercial fisheries is quite small because the product from a single catch share program must compete with similar products from other domestic and international fisheries, including farmed products. Only when the catch share program is for a unique fishery, with a separate market niche, is this

likely to become a problem. In the case of wreckfish, the concentration of quota shares is somewhat unlikely to create monopoly power for shareholders as wreckfish directly competes against other domestically harvested and imported groupers, snappers, and other fish as well. On the other hand, there is evidence that harvesters and dealers have been somewhat successful in creating a niche market for wreckfish, and thus the creation of market power through concentration of quota shares is possible. The likelihood of a wreckfish shareholder possessing monopsony power is similarly remote. Most of the important inputs (e.g., fuel, crew, hooks, line, etc.) used by commercial wreckfish fishermen are also used by other commercial fishermen, recreational fishermen, and/or the general public. Even if a single shareholder possessed all of the shares, it is highly unlikely that a shareholder would possess any control over the prices of his inputs because of competition from other buyers.

Similarly, a shareholder may obtain a significant amount of shares and operate as a monopsonist or monopolist in the market for shares. Such market power can reduce the transferability of shares and thereby prevent an ownership pattern that allows for the most efficient operation of the fleet. In general, this type of market power is more likely to occur than market power in the sale of commercially harvested seafood, including wreckfish.

The second type of issue that can result from the concentration of shares has to do with the lifestyle of fishing households and fishing communities. There can be significant support for the maintenance of a fishery composed of many diverse individuals. According to this view, even if concentration will not produce market power problems, it is to be avoided for reasons other than economic efficiency. The loss of economic returns from the fishery resource in order to maintain a social or community structure is a policy and prioritization question for the South Atlantic Council.

While valid reasons exist for considering limits on ownership, such limits also have weaknesses. One of the primary purposes of using catch shares is to allow individuals to have the flexibility to obtain more shares in order to use more efficient vessels. Share caps can be a direct barrier to such efficiencies that can in turn result in significant economic losses.

An important reference point for discussions of “excessive shares” is National Standard 4 (Section 301(a)(4)):

(4) Conservation and management measures shall not discriminate between residents of different States. If it becomes necessary to allocate or assign fishing privileges among various United States fishermen, such allocation shall be (A) fair and equitable to all such fishermen; (B) reasonably calculated to promote conservation; and (C) carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.

Excessive share is referenced again in Section 303A(c)(5)(D) that grants Councils the authority to create limited access privilege (LAP) programs:

- (D) ensure that limited access privilege holders do not acquire an excessive share of the total limited access privileges in the program by—
 - (i) establishing a maximum share, expressed as a percentage of the total limited access privileges, that a limited access privilege holder is permitted to hold, acquire, or use; and
 - (ii) establishing any other limitations or measures necessary to prevent an inequitable concentration of limited access privileges.

In the same section, the Magnuson-Stevens Act states that when developing LAP programs, a Council should:

- (B) consider the basic cultural and social framework of the fishery, especially through—
 - (i) the development of policies to promote the sustained participation of small owner-operated fishing vessels and fishing communities that depend on the fisheries, including regional or port-specific landing or delivery requirements; and
 - (ii) procedures to address concerns over excessive geographic or other consolidation in the harvesting or processing sectors of the fishery;
- (C) include measures to assist, when necessary and appropriate, entry-level and small vessel owner-operators, captains, crew, and fishing communities through set-asides of harvesting allocations, including providing privileges, which may include set-asides or allocations of harvesting privileges, or economic assistance in the purchase of limited access privileges;

The requirements to consider the allocation of shares to different entities, loan programs, and methods to address different types of consolidation are examples of possible management objectives that may affect what constitutes an excessive share. Moreover, specific guidance is provided to develop procedures to address excessive geographic or other types of consolidation. However, the South Atlantic Council must still determine what “excessive” means.

Market power is one factor to consider when determining what constitutes an excessive share. However, the South Atlantic Council has considerable latitude in determining the management objectives for any FMP and in choosing the subsequent management measures to achieve those objectives, subject to the restrictions and obligations of the 10 National Standards and other Magnuson-Stevens Act requirements. National Standard 8 (Section 301(a)(8)) is particularly relevant to this issue.

(8) Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities by utilizing economic and social data that meet the requirements of paragraph (2), in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic effects on such communities.

Depending on the particular management objectives chosen and the ways in which the South Atlantic Council decides to address the National Standards, factors other than simple market power need to be considered in determining what constitutes an excessive share. However, it is useful to make a clear distinction between market power and other factors because they address different issues.

Under **Action 3**, the South Atlantic Council is considering six share cap alternatives (including a No Action alternative) of 15%, 25%, 49%, 65%, and the highest percentage of total shares held by a single shareholder after redistribution. Thus, excess shares would be shares in excess of the share cap (e.g., if an individual controls 35% of the shares and the share cap is 25%, then that individual's excess shares would be 10%). When applying a share cap in commercial fisheries operating under a catch share program, it is customary to apply it at the individual rather than the shareholder level. This approach has been employed in order to prevent individuals from exceeding the share cap by being or becoming partial or full owners of shareholdings, or rather share certificates in the case of wreckfish. For example, assume the share cap is 49%. An individual could own one share certificate representing 30% of the shares under his name and own 50% of a corporation that owns another share certificate representing 40% of the shares. Although neither shareholder would exceed the share cap, this individual would effectively own and control 50% of the shares and thus exceed the share cap.

Under both Alternative 2 and Alternative 3 (Preferred) for Action 1, only six individuals would own shares associated with an active shareholder. Thus, under **Alternative 1 (No Action)** for **Action 3**, these six individuals would be allowed to own as many shares as they could obtain, either via purchases through the market or as a result of the alternative selected under Action 2. In theory, a single individual could end up controlling at least a majority of the quota shares and possibly 100% of the quota shares. As previously noted, such levels of ownership could lead to the creation of monopoly power in the market for wreckfish as well as reduce the transferability of shares and thereby prevent an ownership pattern that allows for the most efficient operation of the fleet, which is contrary to the South Atlantic Council's goals and objectives.

Further, given that there are only six individuals associated with an active shareholder under both Alternative 2 and Alternative 3 (Preferred) for Action 1, **Alternative 2** under **Action 3**, which would establish a share cap of 15%, is no longer a viable or reasonable alternative.²⁰ Mathematically, if each individual can only own a maximum of 15% of the shares, then the maximum amount of shares those six individuals can own in total is 90%. As such, 10% of the shares would be unallocated and thus not available for harvest. Not only is such an

²⁰ At the beginning of the 2011/2012 fishing year, seven individuals were associated with the active shareholders under both Alternative 2 and Alternative 3 (Preferred) for Action 1 and thus **Alternative 2** under **Action 3** was a viable and reasonable alternative. However, one of the active shareholders recently sold his shares, which reduced the number of individuals associated with active shareholders to six.

outcome economically undesirable, as it would reduce gross revenue and likely profits, it is contrary to the South Atlantic Council's goals and objectives for this amendment.

As can be seen in **Tables 4-19** and **4-20**, under **Alternative 4 (Preferred)**, **Alternative 5**, and **Alternative 6**, no individuals would exceed the share cap and thus no individual would possess excess shares that could be subject to further redistribution, regardless of whether an active shareholder is defined under Alternative 2 or Alternative 3 (Preferred) for Action 1.²¹ Thus, given current conditions, the issue of excess shares is only germane under **Alternative 3**.

Specifically, assuming Alternative 2 for Action 1, one or two individuals would exceed a 25% share cap regardless of which alternative is selected under Action 2, with the exception of Alternative 1 (No Action). Between 9.56% and 19.1% of the shares held by these one or two individuals would be considered excess shares and thus subject to redistribution among the other individuals.

Assuming Alternative 3 (Preferred) for Action 1, two individuals would exceed a 25% share cap regardless of which alternative is selected under Action 2, with the exception of Alternative 1 (No Action). Between 16.25% and 20.47% of the shares held by these two individuals would be considered excess shares and thus subject to redistribution among the other individuals.

Tables 4-21 and **4-22** provide detailed information regarding the distribution of shares by individual²² for each alternative under Action 2, under Alternative 2 and Alternative 3 (Preferred) for Action 1, respectively, assuming the 25% share cap under **Alternative 3** for **Action 3**. By examining the distribution of shares at the individual level, these tables convey additional important findings. For example, assuming Alternative 2 under Action 1, the maximum shares held by a single individual is 44.1%, which would occur under Alternative 4 for Action 2. The maximum shares held by a single individual are lower and accrue to a different individual under the other alternatives for **Action 2**. Thus, assuming Alternative 2 under Action 1, the share cap under **Alternative 6** for **Action 3** would be 44.1% given current conditions.

Assuming Alternative 3 (Preferred) under Action 1, the maximum shares held by an individual is 41.54% under Alternative 3b (Preferred) for Action 2. That same individual would own the largest amount of shares under all of the other alternatives for Action 2, with the exception of Alternative 4. In turn, the two individuals with the maximum amount of shares under each of these scenarios would also have the largest amount of excess shares

²¹ In instances where more than one individual was associated with a single active shareholder (e.g., more than one individual owned the corporation holding the share certificate), landings were apportioned between those individuals according to the percentage of the corporation they own.

²² Each entity, including individuals, is assigned a unique identifier in the Permit Information Management System (PIMS). That identifier is used in these tables to hide the identities of the individuals.

subject to redistribution. Thus, assuming Alternative 3 (Preferred) under Action 1, the share cap under **Alternative 6** for **Action 3** would be 41.54% given current conditions.

Although no individuals would have excess shares under **Alternative 4 (Preferred)** for **Action 3**, the South Atlantic Council indicated its intent to have excess shares redistributed according to the redistribution method specified under the preferred alternative for Action 2, which is Alternative 3b (Preferred). Therefore, it is assumed that this redistribution method is to be employed under **Action 3**. As previously mentioned, excess shares only become an issue under **Alternative 3** (25% share cap) for **Action 3**.

Tables 4-23 and **4-24** provide detailed information regarding the distribution of shares and excess shares by individual for Alternative 3b (Preferred) under Action 2, assuming Alternative 2 and Alternative 3 (Preferred) for Action 1. Because excess shares would exist under **Alternative 3** (25% share cap) for **Action 3**, the redistribution method employed under Alternative 3b (Preferred) for Action 2 is applied. This method redistributes shares away from individuals with excess shares to individuals below the share cap based on their landings histories in fishing years 2006/2007 through 2010/2011. The application of this method results in an iterative redistribution process because the initial redistribution of excess shares based on this method results in a different individual exceeding the share cap, causing those “new” excess shares to be redistributed according to this method. Redistribution continues to occur until no individual exceeds the share cap.

The final shares for each individual after redistribution is complete are also presented in these tables. As can be seen from these results, the redistribution of excess shares under **Alternative 3** for **Action 3** causes the final distribution of shares under Alternative 3b (Preferred) for Action 2 to be much more equal than before redistribution occurred. In fact, the final distribution of shares under Alternative 3b (Preferred) for Action 2 is much more equal than all of the other alternatives under Action 2, with the exception of Alternative 1 (No Action).²³

With respect to economic effects, approximately \$83,500 in share value would be redistributed from the two individuals with the largest amount of shares to the other four individuals with shares, assuming Alternative 2 under Action 1. Assuming Alternative 3 (Preferred) under Action 1, approximately \$131,200 would be redistributed from the two individuals with the largest amount of shares to the other four individuals with shares.

²³ Redistribution of excess shares under the other alternatives for Action 2 was not analyzed as that would cause two different redistribution methods to be employed, contrary to the South Atlantic Council’s intent.

Table 4-19. Number of individuals exceeding share cap and total excess shares under all alternatives for **Action 3** for each alternative under Action 2 assuming Action 1, Alternative 2.

Alternative under Action 2	Number of Individuals Alt 3 (25%)	Excess Shares Alt 3 (25%)	Number of Individuals Alt 4 (Pref) (49%)	Excess Shares Alt 4 (Pref) (49%)	Number of Individuals Alt 5 (65%)	Excess Shares Alt 5 (65%)	Number of Individuals Alt 6 (44.1%)	Excess Shares Alt 6 (44.1%)
2a	2	9.78	0	0	0	0	0	0
2b	1	9.56	0	0	0	0	0	0
3a	2	17.33	0	0	0	0	0	0
3b (Pref)	2	13.03	0	0	0	0	0	0
4	1	19.10	0	0	0	0	0	0

Data source: NOAA Fisheries Southeast Regional Office

Table 4-20. Number of individuals exceeding share cap and total excess shares under all alternatives for **Action 3** for each alternative under Action 2 assuming Action 1, Alternative 3 (Preferred).

Alternative under Action 2	Number of Individuals Alt 3 (25%)	Excess Shares Alt 3 (25%)	Number of Individuals Alt 4 (Pref) (49%)	Excess Shares Alt 4 (Pref) (49%)	Number of Individuals Alt 5 (65%)	Excess Shares Alt 5 (65%)	Number of Individuals Alt 6 (41.54%)	Excess Shares Alt 6 (41.54%)
2a	2	16.25	0	0	0	0	0	0
2b	2	16.38	0	0	0	0	0	0
3a	2	20.21	0	0	0	0	0	0
3b (Pref)	2	20.47	0	0	0	0	0	0
4	2	17.05	0	0	0	0	0	0

Data source: NOAA Fisheries Southeast Regional Office

Table 4-21. Individual shares and excess shares under **Alternative 3** for **Action 3** for each alternative under Action 2 assuming Action 1, Alternative 2.

Individual	Shares Alt. 2a	Shares Alt. 2b	Shares Alt. 3a	Shares Alt. 3b (Pref)	Shares Alt. 4	Excess Shares Alt. 2a	Excess Shares Alt. 2b	Excess Shares Alt. 3a	Excess Shares Alt. 3b (Pref)	Excess Shares Alt. 4
10291	33.36	34.56	30.47	32.86	44.10	8.36	9.56	5.47	7.86	19.10
10932	7.02	7.48	5.66	6.59	8.53	0.00	0.00	0.00	0.00	0.00
12646	26.42	23.07	36.86	30.17	15.50	1.42	0.00	11.86	5.17	0.00
3305	12.53	12.51	9.17	9.13	15.34	0.00	0.00	0.00	0.00	0.00
5474	7.02	7.01	3.63	3.60	6.00	0.00	0.00	0.00	0.00	0.00
5703	13.65	15.37	14.22	17.66	10.54	0.00	0.00	0.00	0.00	0.00

Data source: NOAA Fisheries Southeast Regional Office

Table 4-22. Individual shares and excess shares under **Alternative 3** for **Action 3** for each alternative under Action 2 assuming Action 1, Alternative 3 (Preferred).

Individual	Shares Alt. 2a	Shares Alt. 2b	Shares Alt. 3a	Shares Alt. 3b (Pref)	Shares Alt. 4	Excess Shares Alt. 2a	Excess Shares Alt. 2b	Excess Shares Alt. 3a	Excess Shares Alt. 3b (Pref)	Excess Shares Alt. 4
10291	30.44	30.42	28.98	28.93	35.96	5.44	5.42	3.98	3.93	10.96
10932	6.21	6.33	5.45	5.70	6.95	0.00	0.00	0.00	0.00	0.00
12646	35.80	35.96	41.22	41.54	31.09	10.80	10.96	16.22	16.54	6.09
3305	11.06	11.03	9.11	9.05	12.51	0.00	0.00	0.00	0.00	0.00
5474	5.56	5.54	3.59	3.55	4.89	0.00	0.00	0.00	0.00	0.00
5703	10.92	10.72	11.64	11.24	8.60	0.00	0.00	0.00	0.00	0.00

Data source: NOAA Fisheries Southeast Regional Office

Table 4-23. Individual shares, excess shares, and final shares after redistribution under **Alternative 3** for **Action 3** assuming method under Action 2, Alternative 3b (Preferred) and assuming Action 1, Alternative 2.

Individual	Shares Alt. 3b (Pref)	Excess Shares Alt. 3b (Pref)	Final Shares	Change in Shares	Change in Share Value
10291	32.86	7.86	25.00	-7.86	-\$50,359
10932	6.59	0.00	8.91	2.32	\$14,864
12646	30.17	5.17	25.00	-5.17	-\$33,124
3305	9.13	0.00	12.35	3.22	\$20,631
5474	3.60	0.00	4.87	1.27	\$8,137
5703	17.66	0.00	23.88	6.22	\$39,852

Data source: NOAA Fisheries Southeast Regional Office

Table 4-24. Individual shares, excess shares, and final shares after redistribution under **Alternative 3** for **Action 3** assuming method under Action 2, Alternative 3b (Preferred) and assuming Action 1, Alternative 3 (Preferred).

Individual	Shares Alt. 3b (Pref)	Excess Shares Alt. 3b (Pref)	Final Shares	Change in Shares	Change in Share Value
10291	28.93	3.93	25.00	-3.93	-\$25,178
10932	5.70	0.00	9.65	3.95	\$25,332
12646	41.54	16.54	25.00	-16.54	-\$105,950
3305	9.05	0.00	15.31	6.26	\$40,122
5474	3.55	0.00	6.00	2.45	\$15,692
5703	11.24	0.00	19.04	7.80	\$49,982

Data source: NOAA Fisheries Southeast Regional Office

The U.S. Department of Justice (DOJ), the Federal Trade Commission (FTC), and state attorneys general have used the Herfindahl-Hirschman Index (HHI) to measure market concentration for purposes of antitrust enforcement. The HHI of a market is calculated by summing the squares of the percentage market shares held by the respective market participants. For example, an industry consisting of two participants with market shares of 60% and 40% has an HHI of $60^2 + 40^2$, or 5200.

According to the DOJ-FTC [2010 Horizontal Merger Guidelines](#), these agencies consider a market in which the post-merger HHI is below 1500 as “unconcentrated,” between 1500 and 2500 as “moderately concentrated,” and above 2500 as “highly concentrated.” A merger

raises potential “significant competitive concerns” if it produces an increase in the HHI of more than 100 points in a moderately concentrated market or between 100 and 200 points in a highly concentrated market. A merger is presumed “likely to enhance market power” if it produces an increase in the HHI of more than 200 points in a highly concentrated market.²⁴

In effect, the alternatives under Action 2 in this amendment cause a “merger” between active and inactive shareholders, as defined under the alternatives for Action 1, by redistributing shares from inactive to active shareholders. Because the share cap in **Action 3** is applied at the individual level, HHI values were also estimated at the individual level. These estimates are provided in **Table 4-25**.

Table 4-25. HHI estimates for all alternatives under Action 1 and Action 2, and **Alternative 3** for **Action 3**.

Action 1	Action 2 Alt. 2a	Action 2 Alt. 2b	Action 2 Alt. 3a	Action 2 Alt. 3b (Pref)	Action 2 Alt. 4	Action 3 Alt. 3 (25% cap)
Alt. 1	1,433	1,433	1,433	1,433	1,433	1,433
Alt. 2	2,520	2,526	2,801	2,815	2,562	1,976
Alt. 3 (Pref)	2,253	2,224	2,618	2,442	2,640	2,076

Data source: NOAA Fisheries Southeast Regional Office

The results in **Table 4-25** indicate that, currently, the commercial wreckfish component of the snapper grouper fishery is “unconcentrated” according to the DOJ/FTC guidelines. Given that the HHI is currently 1433, it is just below the threshold for “moderately concentrated.” All of the alternatives under Action 2 significantly increase concentration, to the point where the industry becomes moderately concentrated or “highly concentrated.” The highest levels of concentration would occur under Alternatives 3b (Preferred) and 3a for Action 2, assuming Alternative 2 is selected under Action 1. Assuming Alternative 3 (Preferred) under Action 1, the highest levels of concentration would occur under Alternatives 4 and 3a while the lowest levels of concentration would occur under Alternatives 2b and 2a for Action 2. Alternative 3b (Preferred) under Action 2 would be between these two extremes. It is also worth noting that, assuming Alternative 3 (Preferred) under Action 1, Alternative 3b (Preferred) under Action 2 would move the industry into the “moderately concentrated” rather than the “highly concentrated” category.

Consistent with the intent of share caps, implementation of a 25% share cap under Alternative 3 for Action 3 would decrease concentration in the industry relative to what it would be without a share cap. Although the decrease is significant, the industry would still fall into the “moderately concentrated” category and thus be greater than if inactive shares

²⁴ See <http://unclaw.com/chin/teaching/antitrust/herfindahl.htm>.

were not reverted and redistributed, as would be the case if the South Atlantic Council took no action in this amendment.

4.3.3 Social Effects

Alternative 1 (No Action) would not implement a share cap on the number of shares held by active entities and as mentioned in **Section 4.3.1** would thus not comply with the mandates for limited access privilege programs under the Magnuson-Stevens Act. Although **Alternative 1 (No Action)** would be expected to provide the most social benefits to shareholders holding a large number of shares, it is not practical because of its non-compliance with the mandates for limited access privilege programs.

All other alternatives would establish share caps at levels of 15% (**Alternative 2**), 25% (**Alternative 3**), 49% (**Alternative 4 [Preferred]**), 65% (**Alternative 5**), and at a level equal to that held by the largest shareholder after redistribution (**Alternative 6**). **Tables 4-19 and 4-22 in Section 4.3.2** show in detail the number of shareholders and shares exceeding the share cap under the various alternatives and actions.

Alternative 2 would establish a share cap at 15%. This is no longer a viable alternative because the number of active shareholders has been reduced to six individuals through recent share transfers and at a share cap of 15% assuming either **Alternative 2** or **Alternative 3 (Preferred)** under **Action 1** is selected, all six entities would receive 15 shares (for a total of 90 shares with a total of 10 shares remaining after the cap which could not be distributed because of the cap level) and it would not be possible to reach 100% of the shares to be redistributed. Also, this alternative would be expected to reduce the possible participation of the largest shareholders by giving each entity an equal share. This would act in opposition to the underlying social and economic purpose of this amendment which includes not adversely impacting those who depend on wreckfish for their livelihoods, because it would not allow the largest entities to continue to fish at a comparable level.

Alternative 3 was proposed as a mid-point for analysis between **Alternatives 2 and Alternative 4 (Preferred)** and would establish a share cap at 25% which would cap the shares of two entities throughout the various alternatives assuming **Alternative 2** under **Action 1**, and would cap the shares of one entity assuming **Alternative 3 (Preferred)** under **Action 1**. These entities are the largest shareholders and, although other participants would likely fish the shares removed by the implementation of a 25% cap, this would act in opposition to the underlying social and economic purpose of this amendment which includes not adversely impacting those who depend on wreckfish for their livelihoods.

Alternative 4 (Preferred) would establish a share cap at 49% and would prevent any one entity from holding the majority of shares in the fishery. The share cap would currently not impact any one entity (at their current share level with any of the various alternatives and options). If the largest entity were to acquire more shares prior to the freeze on transfers, this could change.

Alternative 5 would establish a share cap at 65% and currently would not impact any entity at their current share levels with any of the various alternatives and options. If the largest

entity were to acquire more shares prior to the freeze on transfers, this could change. If this large share cap were met by an entity, they would have the majority of the shares in the fishery and this could cause negative social effects including effects to wreckfish dealers which currently depend on wreckfish landings, but are located in a different delivery area from the large shareholder entity.

As explained in **Section 4.3.1, Alternative 6** is the closest to the status quo in that it would allow the entity currently holding the most shares in the fishery to set the share cap. If this entity were to acquire several more shares before the freeze on share transfers takes place, the share cap could be higher than it is with the current analysis. It is anticipated that entities interested in holding the largest proportion of shares among the shareholders are the most likely to fish all the shares. **Alternative 6** could allow for a possible situation similar to that of **Alternative 5** where one entity could have the majority of the shares in the fishery if significant consolidation were to occur prior to a freeze on transfers. Currently, regardless of which alternatives are selected under Action 1 or Action 2, no one entity would hold a majority of the shares; however if a significant transfer of shares were to occur prior to a freeze on transfers, both **Alternative 5** and **Alternative 6** have the capability of creating a situation where a majority of the shares are held by a single entity. If this situation occurred it could negatively impact other shareholders and dealers; however, for years (including the time period of 2006/2007 through 2010/2011 considered in this amendment), the bulk of wreckfish landings have been delivered primarily by a few individuals and this does not appear to have caused negative social effects.

4.3.4 Administrative Effects

Establishing a cap on the number of wreckfish shares that can be held by any single active shareholder is largely an administrative action with socio-economic implications. The South Atlantic Council has determined that excess shares would be redistributed to the active shareholders who have not yet met the share cap using the preferred redistribution method chosen under Action 2. If excess shares would still be held after applying the share cap and a second round of redistribution, a third round of redistribution according to preferred alternative under Action 2 would be applied. NOAA Fisheries Service staff would be responsible for determining which active shareholders are slated to receive shares in excess of the share cap and how many excess reverted shares each active shareholder who has not yet reached the share cap would receive. Excess shares are most likely to be an issue under **Alternatives 2 and 3**, and least likely under **Alternatives 5 and 6**.

It is reasonable to assume that the lower the share cap is set the more administratively burdensome the action would be due to the increased probability of there being excess shares. Therefore, **Alternative 2** is likely to incur the greatest cost and time burden followed by **Alternatives 3, 4 (Preferred), 5, and 6**. Depending on the South Atlantic Council's choice of preferred, dealing with excess shares and associated outreach efforts could constitute a moderate short-term impact on the administrative environment. **Alternatives 1 (No Action) and Alternative 6** are likely to result in the same negligible level of cost and time burden since both would require little to no effort to implement. However, as stated previously, a cap on shares is a Reauthorized Magnuson-Stevens Act requirement and;

therefore, if no share cap is established (**Alternative 1 (No Action)**), NOAA Fisheries Service could be subject to significant administrative burdens associated with litigation.

4.3.5 Council Conclusions

The Snapper Grouper AP recommended that the South Atlantic Council invalidate the wreckfish ITQ program and treat the fishery as an open access fishery within the snapper grouper program. The AP did not have a specific recommendation for this action.

The SEP of SSC reviewed the action. The SEP did not support the establishment of a share cap. Because there are many substitutes for wreckfish available in the market (e.g., grouper species), the SEP did not think that aggregation of shares would lead to market power and the ability to manipulate wreckfish prices on either the buyer or seller side. Another potential concern noted by the SEP for concentrated ownership is disproportionate influence in future management decisions. The SSC concurred with the SEP's recommendations.

The Law Enforcement AP reviewed the action but had no specific recommendations.

The South Atlantic Council is required to define excessive shares for the ITQ program to establish a cap on the number of shares that one entity may own. This action is necessary to prohibit one individual from holding so many shares that he/she would control the market for wreckfish, in addition to equity concerns for the fishermen. A share cap can also be defined based on management goals for the fishery. The wreckfish ITQ program does not currently have a cap on shares, as this was not a Magnuson-Stevens Act requirement until the Act was reauthorized in 2007 and the wreckfish ITQ program was implemented in 1992 under Amendment 5 (SAFMC 1991). It should be noted that Amendment 5 established a 10% cap on the shares that could be received in initial allocation, but not a cap for the number of shares that an entity could hold by purchasing additional shares. In addition, the South Atlantic Council concluded that at the time existing anti-trust laws were sufficient.

The South Atlantic Council selected **Alternative 4** as the preferred alternative. **Alternative 4 (Preferred)** would establish the share cap at 49%, so that an individual or entity may own no more than 49% of the wreckfish shares. Under **Alternative 4 (Preferred)**, no shareholder would exceed the share cap after redistribution of reverted shares. However, a shareholder may purchase additional shares, but the individual would not be able to own in excess of the 49% share cap.

The South Atlantic Council did not want to allow one shareholder to hold 50% or more of the wreckfish shares, but preferred to allow shareholders to increase shareholdings if necessary or if the shareholder wanted to expand operation size. Additionally, the fishery has a small number of participants, and the South Atlantic Council considered this factor when discussing the share cap.

The South Atlantic Council concluded that **Alternative 4 (Preferred)** best meets the purpose and need to implement and achieve OY while minimizing, to the extent practicable, adverse social and economic effects. The preferred alternative also best meets the objectives of the

Snapper Grouper FMP, as amended, while complying with the requirements of the Magnuson-Stevens Act and other applicable law.

4.4 Action 4. Establish an appeals process.

Alternative 1: No Action. Do not specify provisions for an appeals process associated with the ITQ program.

Alternative 2 (Preferred): A percentage of the wreckfish shares for fishing year 2012/2013 will be set-aside to resolve appeals for a period of 90-days starting on the effective date of the final rule. The Regional Administrator will review, evaluate, and render final decisions on appeals. Hardship arguments will not be considered. The Regional Administrator will determine the outcome of appeals based on NMFS' logbooks. If NMFS' logbooks are not available, the Regional Administrator may use state landings records. Appellants must submit NMFS' logbooks or state landings records to support their appeal. After the appeals process has been terminated, any amount remaining from the set-aside will be distributed back to remaining ITQ shareholders according to the redistribution method selected under Action 2.

Sub-alternative 2a: 3% of wreckfish shares will be set aside for appeals.

Sub-alternative 2b (Preferred): 5% of wreckfish shares will be set aside for appeals.

Sub-alternative 2c: 10% of wreckfish shares will be set aside for appeals.

Alternative 3: A percentage of the wreckfish shares for fishing year 2012/2013 will be set-aside to resolve appeals for a period of 90-days starting on the effective date of the final rule. The Regional Administrator will review, evaluate, and render final decisions on appeals. Hardship arguments will not be considered. A special board composed of state directors/designees will review, evaluate, and make individual recommendations to the Regional Administrator on appeals. Hardship arguments will not be considered. The special board and the Regional Administrator will determine the outcome of appeals based on NMFS' logbooks. If NMFS' logbooks are not available, the Regional Administrator may use state landings records. Appellants must submit NMFS' logbooks or state landings records to support their appeal. After the appeals process has been terminated, any amount remaining from the set-aside will be distributed back to remaining ITQ shareholders according to the redistribution method selected under Action 2.

Sub-alternative 3a: 3% of wreckfish shares will be set aside for appeals.

Sub-alternative 3b: 5% of wreckfish shares will be set aside for appeals.

Sub-alternative 3c: 10% of wreckfish shares will be set aside for appeals.

4.4.1 Biological Effects

The wreckfish shareholders' appeals process is largely an administrative action that would have few if any biological implications. **Alternative 1 (No Action)** would result in no adverse biological effects since it would not increase the number of shareholders allowed to receive reverted shares under Action 1 of Amendment 20A, and thus fish those shares.

Alternative 2 (Preferred) is similar to the appeals processes used in the grouper/tilefish and red snapper IFQs in the Gulf of Mexico and the proposed endorsement programs for black sea bass and golden tilefish in Amendments 18A and 18B (under development), respectively. **Alternative 2 (Preferred)** would give shareholders an opportunity to appeal

their inactive share status or the number of reverted shares that were issued to active shareholders through the redistribution process. If either type of appeal were granted by the Regional Administrator, no adverse biological impact in the form of increased fishing pressure would be expected since the overall harvest of the proposed commercial ACL and the number of reverted shares are both limiting factors. Biological effects of **Alternative 3** would be the same as those under **Alternative 2 (Preferred)**. The only difference between **Alternatives 2 (Preferred)** and **3** is the means by which appeals would be considered; i.e., via Regional Administrator determination, or via recommendations of a special board recommendations presented to the Regional Administrator. **Sub-alternatives 2a-2c** and **3a-3c** may result in some short-term reduction in wreckfish fishing-related mortality during the 2012/2013 wreckfish fishing year since 3%, 5% (**Preferred**), or 10% respectively, of wreckfish shares would not be fished during the designated 90-days unless those shares are distributed to successful appellants. After the 2012/2013 season, the long-term biological effects on target and non-target species, and on essential fish habitat and habitat areas of particular concern, would be the same, assuming all shares would be redistributed to active shareholders who are likely to fish the redistributed shares. Since successful appeals would simply shift the distribution of existing shares among shareholders, no increase in effort would be expected, and new effects on protected species not previously considered are not anticipated.

4.4.2 Economic Effects

The adoption of **Alternative 1 (No Action)** would not include the establishment of an appeals process in the ITQ program. **Alternative 2 (Preferred)** and **Alternative 3** consider the establishment of an appeals process. These two alternatives only differ with respect to whether a special board composed of state directors/designees would be involved in the appeals process. Under **Alternative 3**, the special board would review, evaluate, and make individual recommendations to the Regional Administrator on appeals. Under **Alternative 2 (Preferred)**, the Regional Administrator would have sole authority with respect to reviewing, evaluating, and rendering final decisions on appeals. As such, the only difference in the expected economic effects would be with respect to the timeliness and administrative costs associated with rendering decisions on these appeals. In general, it is expected that appeals would be resolved in a more timely and less costly manner if fewer people are involved in the decision making process. Thus, adverse economic effects are expected to be less under **Alternative 2 (Preferred)** relative to **Alternative 3**.

Alternative 2 (Preferred) and **Alternative 3** smooth the implementation of the quota share redistribution process by reducing any adverse effects of the appeals process on active shareholders. At the same time, in the event many appeals are settled in favor of shareholders, it also helps to ensure the commercial wreckfish quota would not be exceeded in the first fishing year following redistribution of the quota shares. Setting aside a relatively small portion of quota shares for appeals purposes limits the likelihood of major share adjustments. Small reductions would be more economically acceptable than large reductions in allocations (i.e., coupons) to active shareholders during the first fishing year following redistribution of the quota shares.

An appeals process provides shareholders, particularly those presumed to be inactive or with a relatively low level of landings, with an avenue to potentially correct factual errors regarding the landings history of the permit(s) associated with each share certificate. Since the landings histories are currently on record through the wreckfish logbooks, the aggregate amount of contentious landings involved in the appeals is expected to be relatively low. Nonetheless, not establishing an appeals process and thereby allowing for the possibility that errors could exist in the logbook records could cause presumably inactive shareholders to question the fairness of the South Atlantic Council's decision to redistribute their shares. In turn, these presumed inactive shareholders might pursue legal action, which could delay redistribution of the quota shares and generate adverse economic effects on active shareholders by keeping them at their current level of shares.

With the exception of the administrative costs and potential costs associated with a potential delay in implementation noted above, the establishment of an appeals process and the design of its structure have mainly equity effects. While equity considerations are important, they have less significance in determining the economic effects of restructuring an ITQ program. Thus, neither the appeals process nor its structure is expected to have a noticeable effect on the overall economic benefits associated with restructuring the ITQ program. This is particularly true when an appeals process would only marginally affect the distribution of quota shares among eligible (i.e., active) participants. Economic changes would only be evident if the number of successful appeals from inactive shareholders were large compared to the number of active shareholders. Experience with the appeals for the red snapper and grouper/tilefish IFQ programs in the Gulf of Mexico revealed that the successful appeals did not materially alter the quota share distribution. Further, given that the total number of shareholders is only 20, of which no more than 14 are presumably inactive, the number of appeals is expected to be small and the number of successful appeals even smaller.

With respect to the three sub-alternatives under **Alternative 2 (Preferred)** and **Alternative 3**, the amount of quota to be set aside for appeals would be 6,698 pounds, 11,163 pounds, and 22,325 pounds, respectively. The set-aside under **Sub-alternatives 2a** and **3a** was thought to be potentially too small, even with the small number of expected appeals. Conversely, given the reduction in the commercial quota and the allocation to each shareholder due to proposed actions in the Comprehensive ACL Amendment (SAFMC 2011), a set-aside of more than 23,000 pounds was thought to be too large. Such a relatively large set-aside could create economic hardships for active shareholders, particularly since this poundage would be withheld in the early part of the fishing year when effort is relatively high. Thus, a 5% set-aside was determined to be an acceptable compromise between the two extremes.

4.4.3 Social Effects

Because the reversion and redistribution of shares would be expected to result in increased social benefits relative to the absence of a reversion and redistribution system, social benefits would be expected to be maximized if all appropriate fishermen are determined to hold active shares and receive reverted shares. The exclusion of any appropriate fishermen would be expected to result in decreased social benefits. The absence of an appeals process, as would occur under **Alternative 1 (No Action)**, would be expected to increase the likelihood that one or more appropriate qualifiers would have either been deemed inactive and would not

receive reverted shares or would not have received the proper amount of reverted shares through some sort of error, resulting in less social benefits. **Alternative 2 (Preferred)** and **Alternative 3** allow for an appeals process and would be expected to result in greater social benefits than **Alternative 1 (No Action)**.

Alternative 2 (Preferred) and **Alternative 3** both provide an appeals process; however, the process for coming to a decision is different. In **Alternative 2 (Preferred)**, the Regional Administrator would review, evaluate, and render a final decision based on NMFS logbooks and, if NMFS logbooks are not available, the Regional Administrator may use state landings records; whereas in **Alternative 3**, a board composed of state directors/designees would review, evaluate, and make individual recommendations to the Regional Administrator on appeals and would rely on logbooks or state landings records if logbooks are not available. Both **Alternative 2 (Preferred)** and **Alternative 3** include varying percentages of wreckfish shares which will be set aside for fishing year 2012/2013 for appeals including: 3% (**Sub-alternative 2a** and **Sub-alternative 3a**), 5% (**Sub-alternative 2b [Preferred]** and **Sub-alternative 3b**), and 10% (**Sub-alternative 2c** and **Sub-alternative 3c**) set-aside for appeals. After the appeals are settled, this alternative would redistribute those shares back to the remaining shareholders according to the method selected under **Action 2**.

Sub-alternative 2c and **Sub-alternative 3c** set aside the largest amount of shares, 10% for appeals, and if this amount of shares is not ultimately necessary for settling appeals, these two sub-alternatives have the potential to provide the most negative social impact to the remaining shareholders because these shares would be unavailable for use until all appeals are settled and they are redistributed. However the social benefits of these additional shares would be received after redistribution of the remaining set-aside shares. Conversely, if 10% of the shares are required for the appeals process and they are not set aside, those appealing could be negatively impacted as they would not receive the shares to which they are entitled.

Sub-alternative 2b (Preferred) and **Sub-alternative 3b** set aside 5% of shares for appeals and provide a mid-point between the other options for setting aside shares (10% or 3%) for the appeals process. These sub-alternatives would likely provide more immediate positive social benefits for active shareholders in that these sub-alternatives would allow a larger amount of inactive shares to be redistributed and immediately harvested by those recognized immediately as active shareholders. However, as with **Sub-alternatives 2c** and **3c**, if not enough shares have been set aside for the appeals process, then those appealing and entitled to those shares could be negatively impacted.

Sub-alternative 2a and **Sub-alternative 3a** set aside 3% of shares for appeals. These sub-alternatives would likely provide the most immediate positive social benefits for recognized active shareholders in that these sub-alternatives would allow a larger amount of inactive shares to be redistributed and immediately harvested by those recognized as active shareholders. However, these sub-alternatives could have the most negative impact on appealing shareholders (if not enough shares have been set aside for the appeals process) since the percent set aside for these sub-alternatives is the lowest out of all the options.

4.4.4 Administrative Effects

Alternative 1 (No Action) would result in the lowest administrative burden when compared to the other appeals process alternatives under consideration. Under **Alternative 1 (No Action)** no inactive shareholders would have the ability to appeal their non-active status in the commercial wreckfish fishery, and no active shareholders could contest the number of shares that were redistributed to them through Action 2 of this amendment; therefore, no administrative action would be required. **Alternative 2 (Preferred)** would require the individual or entity to submit any and all applicable documentation they think could prove their status as an active shareholder including any type of landings records, dealer receipts, and logbooks. Those materials would need to be reviewed by NOAA Fisheries Service staff, as well as the Regional Administrator, to determine the legitimacy of the appellants request for inclusion in the wreckfish fishery, or for issuance of additional reverted shares. Under **Alternatives 2 (Preferred)** and **3**, the appellants would be given a limited amount of time to submit their appeal package, which would subsequently limit the time and cost associated with processing appeals requests. **Alternative 3** is likely to incur the greatest administrative burden since it is logistically cumbersome with the requirement to convene a group of individuals, which could be a time consuming and costly process.

Sub-Alternatives 2a and **3a** would set aside the smallest percentage of shares to be used in the appeals process, and would restrict the number of shares available to be fished during the 2012/2013 fishing year the least. Alternatively, under **Sub-Alternatives 2c** and **3c**, 10% of a small commercial ACL proposed in the Comprehensive ACL Amendment (compared to the previous quota of 2 million pounds) would be unavailable for a portion of the 2012/2013 fishing year, which could cause **Sub-Alternatives 2c** and **3c** to be the least attractive options for the affected individuals. The administrative effects of the sub-alternatives differ only in the percentage of shares set aside. Overall, the administrative burden of implementing any of the sub-alternatives would be relatively equal when compared to each other, and those effects are expected to be minimal to moderate.

If the South Atlantic Council were to choose Alternative 3 (25% share cap), under the share cap action, and if an active shareholder successfully appeals the percentage of reverted shares they received as a result of the Action 2 redistribution regime, there is a possibility that the individual could be granted shares in excess of the share cap. Under this scenario, the individual would only be issued a percentage of shares up to the share cap. Any excess shares that could result from the granting of an appeal would be redistributed to the active shareholders as specified under the preferred redistribution method in Action 2 of this amendment.

4.4.5 Council Conclusions

The Snapper Grouper AP recommended that the South Atlantic Council invalidate the wreckfish ITQ program and treat the fishery as an open access fishery within the snapper grouper program. The AP did not have a specific recommendation for this action.

The Scientific and Statistical Committee (SSC) did not have a specific recommendation for this action.

The Law Enforcement AP reviewed the action but had no specific recommendations.

The South Atlantic Council selected **Alternative 2, Sub-alternative 2b** as the preferred alternative and sub-alternative. **Alternative 2 (Preferred)** would establish the process under which the Regional Administrator would hear and consider all appeals requests, and **Sub-alternative 2b (Preferred)** would establish a set-aside of 5% of wreckfish shares to resolve appeals. The Regional Administrator would determine the outcome of appeals based on NMFS' logbooks. If NMFS' logbooks are not available, the Regional Administrator may use state landings records. Appellants must submit NMFS' logbooks or state landings records to support their appeal. After the appeals process has been terminated, any amount remaining from the set-aside would be distributed back to remaining ITQ shareholders according to the redistribution method selected under Action 2.

The process under **Alternative 2 (Preferred)** is the same as the process used for the Gulf of Mexico Red Snapper IFQ program. For the set-aside proportions, the South Atlantic Council considered recommendations from NOAA Fisheries Service staff, which were based on outcomes of the appeals process for the Gulf of Mexico Red Snapper IFQ program. NOAA Fisheries Service staff recommended that 3% was adequate, but no more than 10% needed to be set aside for appeals. The South Atlantic Council felt that a 5% set-aside under **Sub-alternative 2b (Preferred)** would be sufficient to address appeals.

The South Atlantic Council concluded that the appeals process under **Alternative 2 (Preferred)** and the 5% set-aside under **Sub-alternative 2b (Preferred)** would provide an avenue for shareholders to have information reviewed if there is an error that results in designating shares as inactive, and for redistribution of reverted shares.

Further, the preferred alternatives best meet the purpose and need to implement measures to establish an appeals process and achieve OY while minimizing, to the extent practicable, adverse social and economic effects. The preferred alternative also best meets the objectives of the Snapper Grouper FMP, as amended, while complying with the requirements of the Magnuson-Stevens Act and other applicable law.

5 Cumulative Effects

5.1 Biological

5.1.1 Significant cumulative effects issues associated with the proposed action and assessment goals.

The direct and indirect effects of the proposed action are discussed in detail in (**Section 4**). Affected resources, ecosystems, and human communities are outlined in (**Section 3**).

5.1.2 Geographic scope of the analysis.

The immediate impact area would be the federal 200-nautical mile limit of the Atlantic off the coasts of North Carolina, South Carolina, Georgia, and east Florida to Key West; specifically, deepwater ecosystems identified in **Section 3**.

5.1.3 Timeframe for the analysis.

Wreckfish were added to the snapper grouper fishery management unit in 1991 through Amendment 3 to the Snapper Grouper Fishery Management Plan (FMP) (SAFMC 1990). The time period, on which this amendment focuses, is primarily between the years of 2001 and 2011 when the set of current shareholders was established. The most recent data used are from the 2010/2011 fishing season.

5.1.4 Other actions affecting the resources, ecosystems, and human communities of concern.

The cumulative effects to the social environment, specifically on the fishermen and associated dealers and businesses, are discussed in **Section 4**. Effects at the community level are not expected with the proposed actions in this amendment. Listed in the **Section 5.1.5** are other past, present, and reasonably foreseeable actions occurring in the South Atlantic region. These actions, when added to the proposed management measures, may result in cumulative effects on the biophysical environment.

5.1.5 Past, Present, and Future Fishery-related actions affecting South Atlantic wreckfish.

A. Past

Recently implemented amendments to the FMP have resulted in an increasingly restrictive regulatory environment for the snapper grouper fishery in the South Atlantic. Therefore, effort shifts into other less capitalized components of the snapper grouper fishery have and are currently taking place. It is possible that such effort shifting may impact the wreckfish fishery as fishermen seek alternative means of fishing-related income. However, because wreckfish harvest will soon be limited to a relatively low annual catch limit (ACL), if approved, negative impacts on the stock are likely to be negligible. The reader is referred to **Section 1.3** and

Appendix D of the Comprehensive ACL Amendment (SAFMC 2011) for past regulatory activity for snapper grouper.

B. Present

The amended proposed rule for the Comprehensive ACL Amendment (SAFMC 2011) includes actions to establish an ACL of 235,000 pounds (ww). The commercial sector would be allocated 95% of the total proposed ACL (223,250 pounds (ww)) and 5% of the total ACL would be allocated to the recreational sector (11,750 pounds (ww)). The Comprehensive ACL Amendment also specifies accountability measures (AMs) for the commercial and recreational sectors that would limit harvest in both sectors to their respective ACLs. Amendment 20B to the Snapper Grouper FMP is also under development, which would update the current wreckfish individual transferable quota (ITQ) system to bring the fishery into compliance with Reauthorized Magnuson-Stevens Act limited access privilege program requirements and proposes other modifications to the ITQ program.

C. Reasonably Foreseeable Future

In the future the South Atlantic Council may consider an action to prohibit deep-dropping within the South Atlantic coral habitat areas of particular concern (CHAPCs) designated in the Comprehensive Ecosystem-Based Amendment 1. A prohibition of this type of fishing activity would impact prosecution of the wreckfish fishery in the areas where the subject CHAPCs have been established.

5.1.6 Non-Council and other non-fishery related actions, including natural events affecting wreckfish.

Non-Council, non-fishery related events such as hurricanes, fuel price fluctuations, and oil spills do periodically occur and could affect the wreckfish component of the snapper grouper fishery. However, the extent to which the wreckfish stock is impacted by such events cannot be determined at this time. It is assumed that events leading to decreased fishing effort would benefit the species and events that lead to increased pressure on the stock or adverse environmental conditions would result in negative impacts for the species. Specifically, the BP/Deepwater Horizon Oil spill, which occurred April 20, 2010, did not result in documented adverse impacts to South Atlantic snapper grouper species. Oil from that spill event was not detected in the South Atlantic region, and therefore, no short-term impacts are expected from the oil spill event. However, the long-term impacts of the spill in all regions of the southeast will continue to be monitored by NOAA Fisheries Service and several state and local entities.

Global climate changes could have significant effects on the wreckfish fishery. However, the extent of these effects is not known at this time. Possible impacts include temperature changes in coastal and marine ecosystems that can influence organism metabolism and alter ecological processes such as productivity and species interactions; changes in precipitation patterns and a rise in sea level which could change the water balance of coastal ecosystems; altering patterns of wind and water circulation in the ocean environment; and influencing the productivity of critical coastal ecosystems such as wetlands, estuaries, and coral reefs (IPCC 2007, and references therein). Climate change can affect factors such as migration, range, larval and juvenile survival,

prey availability, and susceptibility to predators. In addition, the distribution of native and exotic species may change with increased water temperature, as may the prevalence of disease in keystone animals such as corals and the occurrence and intensity of toxic algae blooms. Climate change may significantly impact species in the future, but the level of impacts cannot be quantified at this time, nor is the timeframe known in which these impacts will occur. Actions in this amendment are not expected to contribute to or reduce the wreckfish fishery's impact on global climate change.

5.1.7 Characterization of the resources, ecosystem, and human communities identified in scoping in terms of their response to change and capacity to withstand stresses.

Wreckfish are a long-lived deepwater species, and the southeastern stock is considered relatively data-poor. Because wreckfish have a vast range and may experience fishing pressure in other regions of the world, assessing the U.S. wreckfish stock's ability to withstand stresses such as increased fishing pressure or uneven sex ratios is extremely difficult. No issues regarding characterization of the resources, ecosystem, and human communities were identified during the scoping process. However, because of the species' biological characteristics, it may be assumed that impacts of increased fishing pressure or habitat loss would be slow to be detected and would require significant time to correct.

5.1.8 Characterization of the stresses affecting these resources, ecosystems, and human communities and their relation to regulatory thresholds.

Stresses affecting the wreckfish stock include fishing pressure in most areas of the world where they exist at various stages of their lifecycle. Stresses affecting the wreckfish ecosystem may include the use of potentially destructive fishing gear used to harvest the species. Stresses affecting the human communities which rely on wreckfish as a source of income include highly variable fuel prices, and an ever-increasingly complex regulatory environment. Together these factors are influenced by regulatory thresholds in that the Magnuson-Stevens Act requires all overfishing to cease by 2010, and to limit harvest of any federally-managed species to the ACL. Regulations to achieve these ends can be highly restrictive and could contribute to effort shifting into other fisheries that are less restricted, and reductions in overall fishing harvest, which could benefit the species.

5.1.9 Baseline condition for the resources, ecosystems, and human communities.

According to the 2010 Status of Fisheries (NMFS 2010), wreckfish are not undergoing overfishing and their overfished status is unknown. During the development process for the Comprehensive ACL Amendment the South Atlantic Council's Scientific and Statistical Committee (SSC) stated that the 2001 assessment (Vaughan et al. 2001) indicated depletion at higher historical levels of effort and that the catch reductions appeared to have come mainly from gear restrictions, the spawning season closure, and ITQ implementation. Since stock size cannot be projected, an estimate of the overfishing limit from the 2001 assessment could not be produced. Although an estimate of F_{MSY} exists, it cannot be applied to current stock biomass. A recent estimate of F is close to F_{MSY} , so increasing F could lead to overfishing if there were increases in catch. Even though B_{MSY} is unknown, fishing at F_{MSY} on a stock that is below B_{MSY} is acceptable for a stock that is not overfished. Therefore, the SSC recommended setting the

proposed allowable biological catch at the average historical catch (1997-recent) of 250,000 pounds in September 2010, which was included in the Comprehensive ACL Amendment. Due to confidentiality of data, a more precise level could not be set.

The South Atlantic Council approved the Comprehensive ACL Amendment for final review in September 2011. In November 2011, NOAA Fisheries Service Southeast Regional Office (SERO) staff presented a depletion-corrected average catch analysis of the wreckfish population to the Scientific and Statistical Committee (SSC) (**Appendix G**). A subcommittee was formed during the meeting to review the analysis with SERO staff and determine the appropriateness of the current runs as well as evaluate the need for additional runs. As a result, the subgroup produced a report which included three additional runs (**Appendix H**), and concluded that two alternative analyses are equally valid, and have complementary strengths and weaknesses. Following the subgroup's conclusions, the SSC recommended an allowable biological catch (ABC) value for wreckfish of 235,000 pounds (ww). The South Atlantic Council reviewed the recommended ABC value in December 2011 and passed a motion to concur with the process of adjusting the wreckfish ACL to reflect the ABC value of 235,000 pounds (ww).

This level of harvest would cap effort in the wreckfish fishery where it is currently.

5.1.10 Important cause-and-effect relationships between human activities and resources, ecosystems, and human communities.

The relationship between human activities and biophysical ecosystems within the context of this amendment is solely related to extractive activities and the installment of regulations as outlined in **Table 5-1**.

Table 5-1. Relationship between South Atlantic Council action and wreckfish/fishery response.

Action	Implementation Date	Action Taken	Species/Fishery Response
Amendment 3 to the FMP	1990	Wreckfish added to the FMP, required annual permit to fish for, land or sell wreckfish; Established a control date of March 28, 1990 for the area bounded by 33° and 30° N. latitude; Established a fishing year beginning 4/16; Established a process whereby annual quotas would be specified; Implemented a 10,000 pound trip limit and a 1/15-4/15 season closure.	Previously unregulated harvest was brought under control, and landings could be monitored. Spawning populations were protected.

Amendment 5 to the FMP	1991	Establish the wreckfish ITQ system.	Limited participants in the fishery to promote a sustainable fishery. Fishery participation dropped significantly over the next 20 years. No overfishing occurring.
Comprehensive ACL Amendment	Under review	Established ACLs and AMs for wreckfish.	Limited total harvest in commercial and recreational sectors to the ACLs. Prevents overfishing via AMs when triggered.
Amendment 20A to the FMP	TBD	Redistribute inactive shares to active fishery participants.	Once inactive shares are able to be fished, but harvest is still limited to the commercial ACL so no negative impacts to the stock.
Amendment 20B to the FMP	TBD	Update the wreckfish ITQ system.	Brings the fishery into compliance with Magnuson-Stevens Act requirements. No impacts on the stock.
Comprehensive Ecosystem-Based Amendment 3	TBD	Address deep-dropping in CHAPCs	Could protect CHAPCs from gear interactions.

5.1.11 Magnitude and significance of cumulative effects.

Defining inactive shares, establishing a share cap, and redistributing once inactive shares for the wreckfish portion of the snapper grouper fishery combined with past, present, and future actions as applied to the wreckfish sector, are not expected to result in any significant cumulative impacts on the biological environment. The majority of actions contained in this and other wreckfish amendments are largely administrative in nature with socioeconomic implications rather than biological impacts. Therefore, the magnitude and/or significance of actions contained within this amendment are considered extremely small and would not result in cumulative modifications to the biological environment.

5.1.12 Alternatives to avoid, minimize, or mitigate significant cumulative effects.

The cumulative effects on the biophysical environment are expected to be negligible. Therefore, avoidance, minimization, and mitigation are not necessary.

5.1.13 Monitoring the cumulative effects of the selected alternative and adaptation of management measures.

The effects of the proposed actions are, and will continue to be, monitored through collection of data by NOAA Fisheries Service, states, life history studies, and other scientific observations.

5.1.14 Effects on protected species

Endangered Species Act (ESA)-listed species, and species protected under the Marine Mammal Protection Act (MMPA) that occur within areas where the action area would be located and that may be impacted by unrelated, future, non-federal activities reasonably certain to occur within the action area include several species of marine mammals, sea turtles, and fish. The actions in this amendment are not expected to negatively affect any ESA-listed, or MMPA species if implemented through rulemaking.

5.2 Socio-economic

The overall cumulative socio-economic effects from actions that would revert inactive shares and redistribute them to active participants would likely be positive in the long term for active participants, but may have some negative effects for inactive shareholders and possibly for future participants. For active fishermen, actions that would revert shares and re-allocate shares would allow them to maintain operation size and to avoid loss of investment for those who bought shares. With the proposed ACL, these fishermen would not have enough shares to harvest at the same level, and would need to buy or lease shares in order to continue operating at the same scale. For inactive shareholders, the process of removing shares from their possession without compensation may incur negative socioeconomic impacts because they may have planned to use the shares to harvest wreckfish at a future time. Additionally, reversion of shares may be perceived as conflicting with the fundamentals of ITQ programs (long-term ownership of shares). The proposed actions will also cause some consolidation of the wreckfish commercial sector, which may hinder future participants from entering the wreckfish portion of the snapper grouper fishery if they cannot buy or lease shares. Furthermore, inactive shareholders would lose the asset value of the reverted shares, which are considered a source of wealth. However, with the proposed ACL for this fishery, it is likely that no action will result in the decline of wreckfish harvest and potential negative impacts on active fishermen, dealers, and seafood restaurants.

6 Fishery Impact Statement

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) requires a Fishery Impact Statement (FIS) be prepared for all amendments to Fishery Management Plans (FMPs). The FIS contains an assessment of the likely biological and socio-economic 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 Council; and 3) the safety of human life at sea.

6.1 Actions in Amendment 20A to the Snapper Grouper FMP

The purpose of the amendment is to identify and revert inactive wreckfish shares for redistribution among remaining shareholders, and establish a share cap and appeals process. The primary actions are necessary to achieve the optimum yield from the commercial wreckfish portion of the snapper grouper fishery in accordance with National Standard 1 of the Magnuson-Stevens Act and results in a more efficient use of the species as supported by National Standard 5. The establishment of a share cap and the appeals process are necessary to comply with requirements for limited access privilege programs under Section 303 A of the Magnuson-Stevens Act. The intended effect is to promote the management provisions of the FMP for Snapper Grouper Fishery of the South Atlantic Region and to allow the commercial fishermen with shares for wreckfish to maximize harvest potential within the constraints of the proposed annual catch limit (ACL).

6.2 Assessment of Biological Effects

Actions to revert and redistribute inactive wreckfish shares to active shareholders would not result in adverse or beneficial impacts on the biological environment. Because the proposed commercial ACL in the amended proposed rule for the Comprehensive ACL Amendment (SAFMC 2011) would limit harvest to 223,250 pounds (ww), and an in-season accountability measure would close the commercial fishery once the ACL is projected to be met, it is unlikely the commercial wreckfish sector would exceed the commercial ACL. Therefore, adverse biological impacts, such as increased harvest are not likely under either of the preferred alternatives for **Actions 1** or **2** of this amendment. **Actions 3** and **4** to establish a share cap and an appeals process are both largely administrative and socioeconomic in nature, and are not likely to result in any long-term biological impacts. However, under **Action 4**, 5% of the reverted shares would be set aside for 90-days during the appeals window, and therefore, would not be fished during that time, which could provide some very short-term protections for the wreckfish stock early in the 2012/2013 fishing season.

6.3 Assessment of Economic Effects

Under **Action 1**, 28.18% of the quota shares would be defined as inactive and reverted for redistribution to shareholders determined to be active. The 13 shareholders with inactive shares would not incur any losses in wreckfish landings or gross revenue. Eleven of these inactive shareholders had no commercial landings of any species between 2006 and 2010. The loss of wreckfish shares is not expected to affect the current operations of the other two inactive shareholders' vessels. The loss of quota share to the 13 inactive shareholders is

estimated to be valued at approximately \$180,600, or about \$13,890 per shareholder, which represents a loss in asset value or wealth.

Under **Action 2**, the seven active shareholders would receive .04%, .06%, 1.43%, 2.37%, 5.07%, 9.3%, and 9.9% in additional shares, respectively. After redistribution, the final distribution of shares across the seven active shareholders would be: 3.55%, 9.05%, 11.24%, 11.62%, 18.38%, 23%, and 23.16%, respectively. Even though the distribution of additional shares is rather unequal, all active shareholders would receive some economic benefits. With respect to short-term economic benefits, the increase in annual allocation for each active shareholder ranges from 86 pounds to 22,114 pounds, or by approximately 8,986 pounds on average. In turn, the expected change in annual gross revenue from wreckfish landings for all active shareholders is approximately \$186,220. On a per shareholder basis, the increase ranges from \$257 to \$65,457, or by approximately \$26,603 on average. On average, this increase in active shareholders' gross revenue from wreckfish landings represents an increase of approximately 15.4% in gross revenue from all of their commercial fishing activities. With respect to long-term economic benefits, the expected increase in the total value of the active shareholders' shares is approximately \$180,600. On a per shareholder basis, the increase ranges from \$249 to \$63,465, or by approximately \$13,890 on average. Because some individuals are owners of multiple corporations that possess wreckfish shares, the distribution of final shares is even more unequal and the concentration of shares is therefore greater at the individual level. Specifically, the final distribution of shares across the remaining six individuals would be: 3.55%, 5.70%, 9.05%, 11.24%, 28.93%, and 41.54%. Under the combination of **Actions 1** and **2**, the Herfindahl-Hirschman Index (HHI) increases from 1,433 to 2,442 when measured at the individual level. In recent years, approximately 80% of landings and sales of wreckfish have occurred in South Carolina with the other 20% occurring in Florida. Given that approximately 40% of the shares will be held by active shareholders that operate from South Carolina while the other 60% will be held by active shareholders operating from Florida, a shift in the distribution of landings and sales of wreckfish from South Carolina to Florida dealers may occur.

Under **Action 3**, no individuals currently exceed the 49% share cap and thus no individual would possess excess shares that would be subject to further redistribution. As a result, no direct economic effects are expected.

Under **Action 4**, because the Regional Administrator would have sole authority with respect to reviewing, evaluating, and rendering final decisions on appeals, it is expected that appeals would be resolved in a relatively more timely and less costly manner than if a group of people were involved in the decision making process. Further, a set aside of 11,163 pounds is likely large enough to meet the expected number of appeals, but also small enough to avoid creating adverse economic effects on active shareholders.

6.4 Assessment of the Social Effects

The social effects from the proposed actions that would revert inactive shares and redistribute them to active participants would likely be positive in the long term for active participants, but may have some negative effects for inactive shareholders and possibly for future

participants. For active fishermen, actions that would revert shares and re-allocate shares would allow them to maintain operation size and to avoid loss of investment for those who bought shares. For inactive shareholders, the process of removing shares from their possession without compensation may incur negative socioeconomic effects because they may have planned to use the shares to harvest wreckfish at a future time. Additionally, reversion of shares may be perceived as conflicting with the fundamentals of individual transferable quota programs (long-term ownership of shares). The proposed actions could also cause some consolidation of the wreckfish portion of the snapper grouper fishery, which may hinder future participants from entering the wreckfish commercial sector if they cannot buy or lease shares. However, with the proposed ACL for this fishery, it is likely that no action would result in the decline of wreckfish harvest and potential negative effects on active fishermen.

6.5 Assessment of Effects on Safety at Sea

The actions contained in the Amendment 20A to the Snapper Grouper FMP are not expected to change the manner in which fisheries are prosecuted in the wreckfish commercial sector. Therefore, the actions proposed in this amendment are not expected to affect safety at sea.

7 List of Preparers

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SAFMC Coral Advisory Panel
SAFMC Scientific and Statistical Committee
SAFMC Law Enforcement Advisory Panel
SAFMC Snapper Grouper Advisory Panel
North Carolina Coastal Zone Management Program
South Carolina Coastal Zone Management Program
Georgia Coastal Zone Management Program
Florida Coastal Zone Management Program
Florida Fish and Wildlife Conservation Commission
Georgia Department of Natural Resources
South Carolina Department of Natural Resources
North Carolina Division of Marine Fisheries
North Carolina Sea Grant
South Carolina Sea Grant
Georgia Sea Grant
Florida Sea Grant
Atlantic States Marine Fisheries Commission
Gulf and South Atlantic Fisheries Development Foundation
Gulf of Mexico Fishery Management Council
National Marine Fisheries Service
- Washington Office
- Office of Ecology and Conservation
- Southeast Regional Office
- Southeast Fisheries Science Center

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