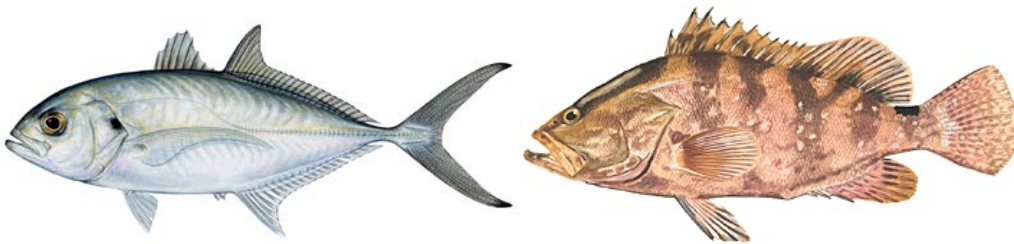


Amendment 27 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region



**Environmental Assessment Regulatory Impact Review
Regulatory Flexibility Act Analysis Fishery Impact Statement**

FINAL VERSION

May 23, 2013

A publication of the South Atlantic Fishery Management Council pursuant to
National Oceanic and Atmospheric Administration
Award Number FNA10NMF4410012

Definitions, Abbreviations, and Acronyms Used in the Document

ABC	acceptable biological catch	FMU	fishery management unit
ACL	annual catch limits	M	natural mortality rate
AM	accountability measures	MARMAP	Marine Resources Monitoring Assessment and Prediction Program
ACT	annual catch target	MFMT	maximum fishing mortality threshold
B	a measure of stock biomass in either weight or other appropriate unit	MMPA	Marine Mammal Protection Act
B_{MSY}	the stock biomass expected to exist under equilibrium conditions when fishing at F_{MSY}	MRFSS	Marine Recreational Fisheries Statistics Survey
B_{OY}	the stock biomass expected to exist under equilibrium conditions when fishing at F_{OY}	MRIP	Marine Recreational Information Program
B_{CURR}	the current stock biomass	MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
CPUE	catch per unit effort	MSST	minimum stock size threshold
DEIS	draft environmental impact statement	MSY	maximum sustainable yield
EA	environmental assessment	NEPA	National Environmental Policy Act
EEZ	exclusive economic zone	NMFS	National Marine Fisheries Service
EFH	essential fish habitat	NOAA	National Oceanic and Atmospheric Administration
F	a measure of the instantaneous rate of fishing mortality	OFL	overfishing limit
F_{30%SPR}	fishing mortality that will produce a static SPR = 30%	OY	optimum yield
F_{CURR}	the current instantaneous rate of fishing mortality	RIR	regulatory impact review
F_{MSY}	the rate of fishing mortality expected to achieve MSY under equilibrium conditions and a corresponding biomass of B_{MSY}	SAMFC	South Atlantic Fishery Management Council
F_{OY}	the rate of fishing mortality expected to achieve OY under equilibrium conditions and a corresponding biomass of B_{OY}	SEDAR	Southeast Data, Assessment, and Review
FEIS	final environmental impact statement	SEFSC	Southeast Fisheries Science Center
FMP	fishery management plan	SERO	Southeast Regional Office
		SIA	social impact assessment
		SPR	spawning potential ratio
		SSC	Scientific and Statistical Committee

Amendment 27 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region

Documents:	Environmental Assessment Regulatory Flexibility Act Analysis Regulatory Impact Review Fishery Impact Statement
Proposed actions:	To extend management responsibility of Nassau grouper to the South Atlantic Fishery Management Council in Gulf of Mexico waters; to increase the number of allowable crew members on dual-permitted snapper grouper vessels; to address captain and crew bag limit retention of snapper grouper; to modify the snapper grouper framework procedures to allow acceptable biological catch levels, annual catch limits, and annual catch targets to be adjusted via an abbreviated framework process; and to modify management measures for blue runner.
Lead agency:	Amendment 27 – South Atlantic Fishery Management Council EA/RIR/FIS – National Marine Fisheries Service (NMFS)
For Further Information Contact:	Robert K. Mahood South Atlantic Fishery Management Council 4055 Faber Place, Suite 201 North Charleston, SC 29405 843-571-4366 866-SAFMC-10 Robert.Mahood@safmc.net Phil Steele NMFS, Southeast Region 263 13 th Avenue South St. Petersburg, FL 33701 727-824-5301 Phil.Steele@noaa.gov

Table of Contents

Table of Contents	ii
List of Appendices	v
List of Figures	vi
List of Tables.....	vii
Summary	S-1
Chapter 1. Introduction.....	1
1.1 What Actions Are Being Proposed? (Purposes).....	1
1.2 Who is Proposing the Actions?	2
1.3 Where is the Project Located?.....	2
1.4 Why is the South Atlantic Council and NMFS Considering Action? (Needs)	3
1.5 What is the History of Management for Blue Runner and Nassau Grouper?	5
Chapter 2. Description of Alternatives and Summary of their Effects	6
2.1 Action 1. Extend the South Atlantic Council’s area of jurisdiction for management of Nassau grouper to include the Gulf of Mexico	6
2.1.1 Alternatives	6
2.1.2 Summary of the Effects of the Alternatives	6
2.2 Action 2. Modify the crew size restriction for dual-permitted snapper grouper vessels.....	7
2.2.1 Alternatives	7
2.2.2 Summary of the Effects of the Alternatives	7
2.3 Action 3. Modify bag limit restriction on snapper grouper species for captains and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper	8
2.3.1 Alternatives	8
2.3.2 Summary of the Effects of the Alternatives	8
2.4 Action 4. Modify Section I of the Snapper Grouper FMP Framework procedure.....	10
2.4.1 Alternatives	10
2.4.2 Summary of the Effects of the Alternatives	14
2.5 Action 5. Modify placement of blue runner in a fishery management unit and/or modify management measures for blue runner.....	15
2.5.1 Alternatives	15
2.5.2 Summary of the Effects of the Alternatives	16
Chapter 3. Description of the Affected Environment.....	18
3.1 Habitat Environment	19
3.1.1 Essential Fish Habitat.....	19
3.1.2 Habitat Areas of Particular Concern	20
3.2 Biological and Ecological Environment.....	21
3.2.1 Fish Populations	21
3.2.2 How are fish populations assessed?	22
3.2.3 Nassau Grouper	22
3.2.3.1 Stock Status of Nassau Grouper.....	23
3.2.4 Blue Runner.....	24
3.2.4.1 Stock Status of Blue Runner	24
3.2.5 Other Fish Species Affected.....	24
3.2.6 Protected Species.....	24

3.3	Economic Environment	25
3.3.1	Economic Description of the Commercial Sector	25
3.3.1.1	Annual Landings, Revenues, and Effort	25
3.3.1.2	Monthly Landings, Revenues, and Effort	26
3.3.1.3	Average Landings, Revenues, and Effort by Gear Type.....	27
3.3.1.4	Permits.....	28
3.3.2	Economic Description of the Recreational Sector	29
3.3.2.1	Harvest.....	29
3.3.2.2	Effort	31
3.3.2.3	Permits.....	34
3.4	Social Environment	35
3.4.1	Environmental Justice Considerations	44
Chapter 4.	Impacts on the Affected Environment and Comparison of Alternatives.....	46
4.1	Action 1. Extend the South Atlantic Council’s area of jurisdiction for management of Nassau grouper to include the Gulf of Mexico	46
4.1.1	Biological Effects	46
4.1.2	Economic Effects	47
4.1.3	Social Effects.....	48
4.1.4	Administrative Effects.....	48
4.2	Action 2. Modify the crew size restriction for dual-permitted snapper grouper vessels.....	48
4.2.1	Biological Effects	48
4.2.2	Economic Effects	49
4.2.3	Social Effects.....	50
4.2.4	Administrative Effects.....	50
4.3	Action 3. Modify bag limit restriction on snapper grouper species for captains and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper	51
4.3.1	Biological Effects	51
4.3.2	Economic Effects	54
4.3.3	Social Effects.....	57
4.3.4	Administrative Effects.....	57
4.4	Action 4. Modify Section I of the Snapper Grouper FMP Framework procedure.....	58
4.4.1	Biological Effects	61
4.4.2	Economic Effects	62
4.4.3	Social Effects.....	62
4.4.4	Administrative Effects.....	63
4.5	Action 5. Modify placement of blue runner in a fishery management unit and/or modify management measures for blue runner.....	64
4.5.1	Biological Effects	65
4.5.2	Economic Effects	76
4.5.3	Social Effects.....	81
4.5.4	Administrative Effects.....	83
Chapter 5.	Reasoning for Council’s Choice of Preferred Alternatives	84
5.1	Action 1. Extend the South Atlantic Council’s area of jurisdiction for management of Nassau grouper to include the Gulf of Mexico	84
5.1.1	Snapper Grouper Advisory Panel Comments and Recommendations.....	84
5.1.2	Law Enforcement Advisory Panel Comments and Recommendations.....	84

5.1.3	Scientific and Statistical Committee Comments and Recommendations	84
5.1.4	South Atlantic Council Choice for Preferred Alternative	84
5.2	Action 2. Modify the crew size restriction for dual-permitted snapper grouper vessels.....	85
5.2.1	Snapper Grouper Advisory Panel Comments and Recommendations	85
5.2.2	Law Enforcement Advisory Panel Comments and Recommendations.....	85
5.2.3	Scientific and Statistical Committee Comments and Recommendations	85
5.2.4	South Atlantic Council Choice for Preferred Alternative	85
5.3	Action 3. Modify bag limit restriction on snapper grouper species for captains and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper	86
5.3.1	Snapper Grouper Advisory Panel Comments and Recommendations	86
5.3.2	Law Enforcement Advisory Panel Comments and Recommendations.....	86
5.3.3	Scientific and Statistical Committee Comments and Recommendations	86
5.3.4	South Atlantic Council Choice for Preferred Alternative	86
5.4	Action 4. Modify Section I of the Snapper Grouper FMP Framework procedure.....	87
5.4.1	Snapper Grouper Advisory Panel Comments and Recommendations	87
5.4.2	Law Enforcement Advisory Panel Comments and Recommendations.....	87
5.4.3	Scientific and Statistical Committee Comments and Recommendations	87
5.4.4	South Atlantic Council Choice for Preferred Alternative	87
5.5	Action 5. Modify placement of blue runner in a fishery management unit and/or modify management measures for blue runner.....	89
5.5.1	Snapper Grouper Advisory Panel Comments and Recommendations	89
5.5.2	Law Enforcement Advisory Panel Comments and Recommendations.....	89
5.5.3	Scientific and Statistical Committee Comments and Recommendations	89
5.5.4	South Atlantic Council Choice for Preferred Alternative	90
Chapter 6.	Cumulative Effects	92
6.1	Biological	93
6.2	Socioeconomic Cumulative Impacts	102
Chapter 7.	List of Preparers.....	104
Chapter 8.	Agencies and Persons Consulted	106
Chapter 9.	References.....	107

List of Appendices

- Appendix A.** Alternatives considered but eliminated from detailed analysis
- Appendix B.** Glossary
- Appendix C.** Essential Fish Habitat
- Appendix D.** History of Management
- Appendix E.** Other Applicable Law
- Appendix F.** Bycatch Practicability Analysis
- Appendix G.** Regulatory Impact Review
- Appendix H.** Initial Regulatory Flexibility Analysis
- Appendix I.** Fishery Impact Statement

List of Figures

Figure 1.3.1. Jurisdictional boundaries of the South Atlantic Fishery Management Council.	2
Figure 3.2.1. Two components of the biological environment described in this document.	21
Figure 3.4.1. Distribution of commercial blue runner landings with the size of the point proportional to landings, based on dealer reports.....	39
Figure 3.4.2. Proportion (rq) of blue runner commercial landings (pounds and value) for top 10 South Atlantic communities out of total landings and value of blue runner.	40
Figure 3.4.3. Top fishing communities with dual-permitted vessels by number of dual-permitted vessels.....	42
Figure 3.4.4. Top fishing communities with charter/headboat permits for snapper grouper by number of permits.	43
Figure 4.5.1. Percentage of blue runner landed with gillnet (GN) and vertical line (H) gear in the South Atlantic, 2007-2011.	67
Figure 4.5.2. Percentage of mackerel and other snapper grouper species landed with hook-and-line on trips that caught at least one pound of blue runner in the South Atlantic, 2007-2011.....	67
Figure 4.5.3. Percentage of mackerel and other snapper grouper species landed with gillnet gear on trips that caught at least one pound of blue runner in the South Atlantic, 2007-2011.....	68
Figure 4.5.4. Harvest (fish that are observed at the dock by an MRIP sampler plus fish that are reported dead but are not observed by the sampler) of blue runner by MRIP Mode in numbers of fish from 1986-2011.....	70
Figure 4.5.5. Total harvest (fish that are observed at the dock by an MRIP sampler plus fish that are reported dead but are not observed by the sampler) and live discards of blue runner in numbers of fish from 1986-2011.	71

List of Tables

Table S-1. Total annual commercial landings (pounds whole weight) of snapper grouper species, mackerel (king and Spanish), and total commercial landings of blue runner (pounds whole weight) in the South Atlantic from 2000 to 2011.....	S-11
Table 2.3.1 Percent increase in headboat and charterboat harvest for most commonly landed snapper grouper species under Preferred Alternative 2 using average landings from 2009-2011.....	9
Table 2.3.2 Percent decrease in headboat and charterboat harvest for most commonly landed snapper grouper species under Alternative 3 using average landings from 2009-2011.....	9
Table 3.3.1. Selected characteristics for trips landing at least one pound (gutted weight) of snapper grouper, 2007-2011.....	26
Table 3.3.2. Selected characteristics for trips landing at least one pound (gutted weight) of blue runner, 2007-2011.....	26
Table 3.3.3. Selected monthly characteristics for trips landing at least one pound (gutted weight) of snapper grouper, 2007-2011 average.....	27
Table 3.3.4. Selected monthly characteristics for trips landing at least one pound (gutted weight) of blue runner, 2007-2011 average.....	27
Table 3.3.5. Selected monthly characteristics for trips landing at least one pound (gutted weight) of snapper grouper, by gear type, 2007-2011 average.....	28
Table 3.3.6. Selected characteristics for trips landing at least one pound (gutted weight) of blue runner, 2007-2011 average.....	28
Table 3.3.7. Number of commercial snapper grouper permits.....	29
Table 3.3.8. Harvest (pounds whole weight) of snapper grouper and blue runner in the South Atlantic, by mode, 2007-2011.....	30
Table 3.3.9. Harvest (pounds whole weight) of snapper grouper and blue runner in the South Atlantic, by state, 2007-2011.....	30
Table 3.3.10. Average harvest (pounds whole weight) of snapper grouper and blue runner in the South Atlantic, by wave, 2007-2011.....	31
Table 3.3.11. Catch trips for snapper grouper and blue runner in the South Atlantic, by mode, 2007-2011.....	32
Table 3.3.12. Catch trips for snapper grouper and blue runner in the South Atlantic, by state, 2007-2011.....	32
Table 3.3.13. Average catch trips for snapper grouper and blue runner in the South Atlantic, by wave, 2007-2011.....	32
Table 3.3.14. Target trips for snapper grouper and blue runner in the South Atlantic, by mode, 2007-2011.....	33
Table 3.3.15. Target trips for snapper grouper and blue runner in the South Atlantic, by state, 2007-2011.....	33
Table 3.3.16. Average target trips for snapper grouper and blue runner in the South Atlantic, by wave, 2007-2011.....	33
Table 3.3.17. South Atlantic headboat angler days, by state, 2005-2011.....	34

Table 3.3.18a. Average monthly distribution of headboat angler days in the South Atlantic, by state, 2005-2010.....	34
Table 3.3.18b. Average monthly distribution of headboat angler days in the South Atlantic, by state, 2007-2011.....	34
Table 3.3.19. Number of South Atlantic for-hire snapper-grouper vessel permits, 2008-2011.....	35
Table 3.4.1. Recreational landings of blue runner by state, 2011.....	37
Table 3.4.2. South Atlantic recreational fishing communities.....	38
Table 3.4.3. Dual-permitted vessels by state.....	41
Table 3.4.4. Charter/headboat permits by state.....	43
Table 3.4.5. Average proportion of minorities and population living in poverty by state, and the corresponding threshold used to consider an area of potential EJ concern.....	45
Table 4.3.1 Percent increase in headboat and charterboat harvest for most commonly landed snapper grouper species under Preferred Alternative 2 using average landings from 2009-2011.....	53
Table 4.3.2 Percent increase in headboat and charterboat harvest for most commonly landed snapper grouper species under Preferred Alternative 2 using average landings from 2009-2011.....	53
Table 4.3.3 Percent decrease in headboat and charterboat harvest for most commonly landed snapper grouper species under Alternative 3 using average landings from 2009-2011.....	54
Table 4.3.4 Percent decrease in headboat and charterboat harvest for most commonly landed snapper grouper species under Alternative 3 using average landings from 2009-2011.....	54
Table 4.5.1. Total annual landings of blue runner (pounds whole weight) as reported through the Coastal Fisheries Logbook Program (CFLP) and the ALS (trip ticket data) from 2000 to 2011.....	66
Table 4.5.2. Total annual landings (pounds whole weight) of snapper grouper species, mackerel (king and Spanish), and total landings of blue runner (pounds whole weight) in the South Atlantic from 2000 to 2011.....	66
Table 4.5.3. Number of blue runner by MRIP Catch Type, including harvest (fish that are observed at the dock by an MRIP sampler plus fish that are reported dead but are not observed by the sampler) and total catch (harvest plus blue runner reported to be discarded alive).....	69
Table 4.5.4. Blue runner commercial and recreational harvest in pounds whole weight in state and federal waters from 2005-2011.....	73
Table 4.5.4a. Percentage of blue runner commercial harvest by state from 2005-2011.....	73
Table 4.5.5. Commercial landings, nominal (not inflated) value, and average price per pound of blue runner (BR) by gear type in the South Atlantic, 2007-2011.....	77
Table 4.5.6. Commercial landings, nominal (not inflated) value, price per pound of blue runner (BR) and Spanish mackerel (SM) for those trips where at least 1 lb of blue runner and 1 lb of Spanish mackerel (SM) were landed, 2007-2011.....	78
Table 4.5.7. Commercial landings, nominal (not inflated) value, price per pound of blue runner (BR) and king mackerel (KM) for those trips where at least 1 lb of blue runner and 1 lb of king mackerel were landed, 2007-2011.....	79

Table 4.5.8. Commercial landings, value, price per pound of blue runner (BR) and snapper grouper species (SG) for those trips where at least 1 lb of blue runner and 1 lb of snapper grouper were landed, 2007-2011.	80
Table 4.5.9. Commercial landings and value of blue runner landed on trips where there were no snapper grouper complex species landed, 2007-2011.	80
Table 6.1.1. The cause and effect relationship of fishing and regulatory actions within the time period of the Cumulative Effects Analysis (CEA).	97
Table 7.1.1 List of preparers of the document.	104
Table 7.1.2. List of interdisciplinary plan team members for the document.	105

Summary

What Actions Are Being Proposed?

Amendment 27 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (Amendment 27) would: Extend the South Atlantic Fishery Management Council's (South Atlantic Council) management authority of Nassau grouper to include federal waters of the Gulf of Mexico; increase the number of crew members allowed on dual-permitted snapper grouper vessels (vessels that have both a federal South Atlantic Charter/Headboat Permit for Snapper Grouper and a South Atlantic Unlimited or 225-Pound Snapper Grouper Permit); address captain and crew retention of bag limit quantities of snapper grouper species; modify Section I of the Framework Procedure for the Snapper Grouper Fishery of the South Atlantic Region (Framework) to allow adjustments of the acceptable biological catch (ABC), the annual catch limit (ACL), and the annual catch target (ACT) via an abbreviated framework process; and modify management measures for blue runner.

Why are the South Atlantic Council and NMFS Considering Action?

Nassau Grouper

On December 16, 2011, a notice of agency action was published in the *Federal Register*, designating the South Atlantic Council as the responsible council to manage Nassau grouper in the Gulf of Mexico. The Gulf of Mexico Fishery Management Council (Gulf of Mexico Council) took action to remove Nassau grouper from their reef fish fishery, with the intention that the South Atlantic Council would extend its

Purpose for Action

The *purpose* of Amendment 27 is to: (1) establish the South Atlantic Council as the responsible entity for managing Nassau grouper throughout its range including federal waters of the Gulf of Mexico; (2) modify the crew member limit on vessels with both a South Atlantic Charter/Headboat Permit for Snapper Grouper and a South Atlantic Unlimited or 225-Pound Permit for Snapper Grouper (referred to as "dual-permitted" vessels); (3) modify the current restriction on crew retention of bag limit quantities of snapper grouper species; (4) minimize regulatory delay when adjustments to snapper grouper species' ABC, ACLs, and ACTs are needed as a result of new stock assessments; and (5) address harvest of blue runner by commercial fishermen who do not possess a South Atlantic Snapper Grouper Permit.

Need for Action

The *need* for Amendment 27 is to: (1) respond to the Gulf of Mexico Council's request for the South Atlantic Council to assume management of Nassau grouper in the southeast U.S.; (2) address safety-at-sea concerns related to the current limit of three crew members for dual-permitted vessels; (3) make regulations regarding retention of snapper grouper species by crew members consistent for all snapper grouper species; (4) expedite adjustments to ABCs, ACLs, and ACTs for snapper grouper species when a new stock assessment indicates adjustments are warranted; and (5) minimize socio-economic impacts to fishermen without a South Atlantic Snapper Grouper Permit who harvest and sell blue runner to supplement their income.

area of jurisdiction for management of Nassau grouper to include federal waters of the Gulf of Mexico. Nassau grouper has been under a harvest moratorium since 1992 due to concerns of overexploitation. The current ACL for Nassau grouper in both the South Atlantic and Gulf of Mexico is zero. Removal of the prohibition to harvest Nassau grouper in the Gulf of Mexico has been delayed until the South Atlantic Council addressed the issue of extending its management authority over Nassau grouper to include the Exclusive Economic Zone (EEZ) off the Gulf of Mexico in this amendment. The South Atlantic Council proposes to extend its jurisdictional authority for management of Nassau grouper to include federal waters of the Gulf of Mexico. Harvest of Nassau grouper in the Gulf of Mexico EEZ and the South Atlantic EEZ would continue to be prohibited.

Crew Member Limit on Dual-Permitted Snapper Grouper Vessels

Currently, there is a crew size limit of 3 for vessels with both a South Atlantic Charter/Headboat Permit for snapper grouper and a South Atlantic Unlimited or 225-Pound Permit for snapper grouper (referred to as “dual-permitted” vessels). This crew size limit prevents a dual-permitted vessel from engaging in a charter/headboat trip while landing fish in excess of the recreational bag limits. However, a safety concern arises under the current crew size regulations when dual-permitted vessels are spearfishing commercially. The maximum crew size of 3 persons prohibits fishermen from diving in pairs using the buddy system while having a standby diver and captain at the surface as recommended by the U.S. Coast Guard diving operations manual. The South Atlantic Council has received requests from dual-permitted vessel operators to allow a crew size of at least 4 persons. The increase in crew size would allow two persons to remain on the vessel while there are two divers in the water, thereby contributing to increased safety at sea. The South Atlantic Council proposes to increase the limit to four crew members for dual-permitted vessels.

Captain and Crew Retention of Bag Limit Quantities of Snapper Grouper

During their December 2012 meeting, the South Atlantic Council discussed the issue of consistency of regulations prohibiting captain and crew on for-hire vessels from retaining bag limit quantities of some snapper grouper species and not others. Therefore, the South Atlantic Council chose to re-evaluate this regulation in this amendment. The South Atlantic Council is proposing removing the restriction or making it applicable to all species in the snapper grouper fishery management unit (FMU); that is, captain and crew on for-hire vessels would not be allowed to retain bag limit quantities of any snapper grouper species. Consistent regulations for all snapper grouper species would alleviate current confusion regarding which species the provision applies to, and would aid in law enforcement efforts. The South Atlantic Council proposes to remove the snapper grouper species retention restrictions for captain and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper.

Snapper Grouper Framework Modifications

Currently, the Framework allows ABCs, ACLs, and ACTs to be modified for snapper grouper species via the regulatory amendment process, which most often requires the development of an amendment and associated National Environmental Policy Act documents in addition to proposed and final rules with public comment periods. This process can be lengthy, and prevents fishery managers from quickly implementing harvest parameters in response to new scientific information when needed. The lag time between when new information becomes available and when catch levels can be adjusted has the

potential to result in adverse impacts on the economic and biological environments. Therefore, the South Atlantic Council is considering an action in Amendment 27 that would allow ABCs, ACLs, and ACTs to be modified through an abbreviated framework procedure that should allow the catch levels to be adjusted more quickly. The South Atlantic Council proposes to modify Section I of the Snapper Grouper Framework Procedure by adding a new Item #9 (and renumber the existing 9 as 10 and 10 as 11).

Blue Runner

Blue Runner, *Caranx crysos*



- Occurs from Nova Scotia to Brazil, including the Gulf of Mexico and Caribbean
- Is thought to form spawning aggregations
- Occurs in water as deep as 100 m but generally stays close to the coast
- Maximum reported size is 27 inches
- Maximum reported age is 11 years

The South Atlantic Council has become aware that for many years, South Atlantic mackerel fishermen who use gillnets have been selling blue runner caught in gillnets as bycatch to supplement their incomes without having a valid South Atlantic Unlimited Snapper Grouper Permit, or a valid South Atlantic 225-Pound Snapper Grouper Permit, which is a requirement under the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (Snapper Grouper FMP). It is likely mackerel fishery participants were not aware that: Blue runner is included in the snapper grouper FMU; the species is managed with commercial and recreational ACLs; gillnets are not an approved gear in the snapper grouper fishery; and a restriction is in place on the sale of bag limit caught quantities of fish under the Snapper Grouper FMP. Because some mackerel fishery participants derive up to 30% of their income from the sale of blue runner, the South Atlantic Council is proposing action to allow fishermen who capture blue runner as bycatch while using gillnets to fish for South Atlantic mackerel species to be able to legally sell blue runner and thus minimize adverse socio-economic impacts. The South Atlantic Council proposes to remove blue runner from the Snapper Grouper FMP. At the April 2013 Florida Fish and Wildlife Conservation Commission (FWC) meeting, the Commissioners gave staff direction of their desire to assume management of blue runner in federal waters off Florida and to review current state rules for blue runner (letter from Ken Wright, FWC Chair to David Cupka, South Atlantic Council Chair dated April 29, 2013).

Summary of Effects

Action 1. Extend the South Atlantic Council’s area of jurisdiction for management of Nassau grouper to include the Gulf of Mexico

Alternative 1 (No Action). Nassau grouper harvest is prohibited in the South Atlantic and Gulf of Mexico. The South Atlantic Council’s area of jurisdiction for management of Nassau grouper is limited to federal waters of the South Atlantic.

Alternative 2 (Preferred). The South Atlantic Council would extend its jurisdictional authority for management of Nassau grouper to include federal waters of the Gulf of Mexico. Harvest of Nassau grouper in the Gulf of Mexico exclusive economic zone EEZ and the South Atlantic EEZ would continue to be prohibited.

Biological Effects

Alternative 1 (No Action) would not allow the South Atlantic Council to manage Nassau grouper in the Gulf of Mexico. However, there is no expiration date associated with the harvest prohibition in the Gulf of Mexico currently in place. Therefore, under **Alternative 1 (No Action)** the current harvest prohibition in the Gulf of Mexico would remain. **Alternative 2 (Preferred)** is an administrative action and no changes in the biological effects would be expected as the alternative would simply allow for the South Atlantic Council to continue the harvest prohibition for Nassau grouper in the Gulf of Mexico.

Socio-economic Effects

If the South Atlantic Council’s jurisdiction for Nassau grouper extends to the Gulf of Mexico, it is expected that there would be no economic effects as Nassau grouper are not currently targeted, nor can they be harvested in either the South Atlantic or Gulf of Mexico.

It is noted that Nassau grouper is currently under review for listing under the Endangered Species Act (ESA) and management of the species in federal waters contributes to federal protection of a potentially threatened or endangered fish.

Nassau grouper, *Epinephelus striatus*



- Found from Bermuda, the Bahamas, and Florida to southern Brazil
- Sedentary, reef-associated, usually encountered close to caves
- Aggregates to spawn at specific times and locations each year
- Maximum reported size is 48 inches
- Maximum reported age is 29 years

Action 2. Modify the crew size restriction for dual-permitted snapper grouper vessels

Alternative 1 (No Action). The current limit on the number of crew members on any dual-permitted vessel (a vessel associated with both a South Atlantic Charter/Headboat Permit for Snapper Grouper and a South Atlantic Unlimited or 225-Pound Permit for Snapper Grouper) is three.

Alternative 2. Eliminate the limit of three crew members for dual-permitted vessels

Alternative 3 (Preferred). Increase the limit to four crew members for dual-permitted vessels.

Biological Effects

Maintaining the current crew limit (**Alternative 1 (No Action)**), would not address the safety-at-sea issues presented when divers are not able to properly utilize the buddy system while commercial diving as recommended in the U.S. Coast Guard diving operations manual. **Alternative 2** would address the safety-at-sea issues but may also increase the risk that dual-permitted vessels could engage in for-hire trips while commercial fishing, which is prohibited. **Alternative 3 (Preferred)** would allow two persons to remain onboard while there are two divers in the water, thereby increasing the safety of commercial divers. Because recreational harvest of snapper grouper species is limited to the recreational ACLs, any change in the rate of harvest or vessel efficiency due to an increase in crew size, would result in neutral biological impacts.

Economic Effects

No economic effects to the overall economy are anticipated from the implementation of either **Alternatives 2 or 3 (Preferred)**. However, the alternatives could have economic effects on individual trip costs. Bringing additional crew members on board would likely increase trip costs because of the additional compensation required. Potential trip profitability would be weighed against safety concerns because of additional crew members onboard in determining the value of additional crew. By allowing for more than four crew members onboard, **Alternative 2** has the potential for greater economic effects on trip costs than **Alternative 3 (Preferred)**.

Social Effects

Alternative 1 (No Action) would be expected to result in the most significant negative social effects on fishermen working on dual-permitted vessels among the three alternatives in this action. The current crew size limit may prohibit fishermen from maximizing efficiency on each trip and taking advantage of both the commercial and charter permits associated with the vessel. Additionally, as mentioned previously, the current crew size limit of three per vessel may hinder safe diving practices by not providing diving partners for each potential commercial diver. **Alternatives 2 and 3 (Preferred)** would be expected to decrease the negative impacts of the current regulations and increase the potential benefits from safe and profitable commercial dive trips on dual-permitted vessels.

Action 3. Modify bag limit restriction on snapper grouper species for captains and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper

Alternative 1 (No Action). Captain and crew may not retain bag limit quantities of the following species in the snapper grouper FMU: gag, black grouper, red grouper, scamp, red hind, rock hind, coney, graysby, yellowfin grouper, yellowmouth grouper, yellowedge grouper, snowy grouper, misty grouper, vermilion snapper, sand tilefish, blueline tilefish, and golden tilefish.

Alternative 2 (Preferred). Remove the snapper grouper species retention restrictions for captain and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper.

Alternative 3. Establish a bag limit of zero for captain and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper for *all* species included in the snapper grouper FMU.

Why was this regulation needed in the first place?

- At the time this regulation was implemented, vermilion snapper and gag were undergoing overfishing.
- A certain reduction in harvest was needed to end overfishing of those two species.
- Disallowing captain and crew on for-hire vessels to retain vermilion snapper, gag, tilefishes, and shallow water groupers allowed the South Atlantic Council to reach the appropriate percent reduction in harvest to end overfishing.

Biological Effects

Alternative 1 (No Action) would continue the biological benefits from not allowing retention of bag-limit quantities of snapper grouper species for captain and crew members of for-hire vessels. The current regulations that prohibit captain and crew from retaining only certain snapper grouper species may be confusing for some individuals. **Alternative 1 (No Action)** may result in negative biological impacts for some species that are mistakenly retained by crew, and may result in biological benefits for species that are unnecessarily discarded because they are thought to have a bag limit of zero for crew members. The extent of effects, however, would be expected to be small and directly related to the level of discard mortality for each particular species and the depth at which it was caught.

Alternative 2 (Preferred) proposes to remove the current restriction on retaining bag limit quantities of some snapper grouper species. This alternative would therefore allow the captain and crew on a for-hire vessel to retain the recreational bag limit of gag, black grouper, red grouper, scamp, red hind, rock hind, coney, graysby, yellowfin grouper, yellowmouth grouper, yellowedge grouper, snowy grouper, misty grouper, vermilion

snapper, sand tilefish, blueline tilefish, and golden tilefish. **Alternatives 2 (Preferred)** and **3** would both result in regulatory consistency for crew member retention provisions for all snapper grouper species. However, **Alternative 2 (Preferred)** could result in small negative biological impacts since bag limit retention of *all* snapper grouper species (that have bag limits) would be allowed for crew members of federally-permitted for-hire vessels in the snapper grouper fishery. In addition, bycatch of species with

low recreational ACLs could increase and result in negative biological impacts. Conversely, **Alternative 3** would benefit the biological environment the most by prohibiting crew members of for-hire vessels from retaining *all* snapper grouper species. However, the percentage decrease in harvest associated with **Alternative 3** is small and is not expected to be a significant source of biological protection. Substantial harvest controls have been in place since the implementation of Amendment 16, and ACLs and accountability measures (AMs) now have been implemented for all snapper grouper species included in the FMP. Therefore, the biological effects of **Alternatives 1 (No Action)-3** may be neutral.

Economic Effects

Several key issues surround the evaluation of the economic effects of the various alternatives under this action. Captain and crew of for-hire vessels provide labor services for each recreational trip and may not be strictly considered recreational anglers. If they were allowed to retain bag limits of certain snapper grouper species, the value of the retained fish would depend on their ultimate use. Captain and crew can take the fish home, give fish to other people (such as their angling customers), or sell them. Such actions would yield some form of economic value that cannot be adequately estimated. While the sale of recreationally caught snapper grouper species is illegal, it remains difficult to enforce. If the fish were distributed to the angling customers in one way or another, those fish may assume economic values that are comparable to economic values derived by an angler for keeping the fish. It is also possible for the captain and crew bag limit to be used for marketing purposes. Anglers could be enticed to take fishing trips if they are potentially allowed to keep fish above the bag limit. Those trips could also be assigned economic values in the form of additional revenue to the vessel. If, on the other hand, captain and crew of for-hire vessels were prohibited from retaining bag limits, those potential consumer surplus and net operating revenue values would be forgone.

Relative to **Alternative 1 (No Action)**, **Alternative 2 (Preferred)** would be expected to result in some economic benefits. Based on a bag limit analysis done for this amendment and considering only the period 2008-2011, **Alternative 2 (Preferred)** would result in an additional 51 fish kept on charter trips and 138 additional fish kept on headboat trips. The values of these fish would be \$3,887 (2011 dollars) for charter trips and \$10,623 (2011 dollars) for headboat trips. In contrast to **Alternative 2 (Preferred)**, **Alternative 3** would be expected to result in reduced economic benefits relative to **Alternative 1 (No Action)**. **Alternative 3** would result in reductions of 275 fish for charter boat trips and 4,291 fish for headboat trips. The associated values for these reductions would be \$21,131 (2011 dollars) and \$330,321 (2011 dollars) for charter boat and headboat trips, respectively. It is not possible, however, to determine the reduction in angler trips under either **Alternative 2 (Preferred)** or **Alternative 3**. It is noted that angler trip reductions would result in revenue reductions of \$157.27 (2011 dollars) per charter boat angler trip and \$70.25 (2011 dollars) per headboat angler trip.

Social Effects

The existing restrictions on captain and crew bag limit retention under **Alternative 1 (No Action)** cause confusion among for-hire captains and crew since the restriction applies only to some snapper grouper species and not others. This inconsistency may also hinder effective enforcement. The opportunity to retain catch on for-hire trips, as proposed under **Alternative 2 (Preferred)**, would be expected to be beneficial to for-hire captain and crew by providing fish for personal consumption.

However, for species with low recreational ACLs (such as snowy grouper), allowing captain and crew to retain bag limits, as proposed under **Alternative 2 (Preferred)**, may reduce the amount available to private recreational anglers. Additionally, **Alternative 2 (Preferred)** could result in increased incentive to harvest the maximum bag limit for some species on for-hire trips, which could cause conflict among the for-hire fleet.

Alternative 3 would likely result in some negative impacts for crew who routinely take allowed bag limits for personal consumption. For species in the snapper grouper FMU that are not overfished or experiencing overfishing, bag limit restrictions for the for-hire crew members would not be expected to result in any benefits for fishermen and other resource users.

Action 4. Modify Section I of the Snapper Grouper FMP Framework procedure

Alternative 1 (No Action). Section I of the snapper grouper framework procedure, as modified through Amendment 17B (See **Section 2.4** for the current framework).

Alternative 2 (Preferred). Modify Section I of the Snapper Grouper Framework Procedure by adding a new Item #9 (and renumber the existing 9 as 10 and 10 as 11):

9. Adjustments to ABCs, ACLs, and ACTs according to the existing ABC Control Rule(s) and formulas for specifying ACLs and ACTs that have been approved by the Council and that were implemented in a fishery management plan amendment to the FMP. This abbreviated process is authorized as follows:

- a. Following the Scientific and Statistical Committee's (SSC's) review of the stock assessment, the Council will determine if changes are needed to ABC, ACL, and/or ACT and will so advise the RA.
- b. The Council will first hold a public hearing during the Council meeting during which they will review the stock assessment and the SSC's recommendations. In addition, the public will be advised prior to the meeting that the Council is considering potential changes to the ABC, ACL, and/or ACT and the Council will provide the public the opportunity to comment on the potential changes prior to and during the Council meeting.
- c. If the Council then determines that modifications to the ABC, ACL, and/or ACT are necessary and appropriate, they will notify the RA of their recommendations in a letter with the Council's analysis of the relevant biological, economic, and social information necessary to support the Council's action.
- d. The RA will review the Council's recommendations and supporting information. If the RA concurs that the Council's recommendations are consistent with the objectives of the FMP, the Magnuson-Stevens Fishery Conservation and Management Act, and all other applicable law, the RA is authorized to implement the Council's proposed action through publication of appropriate

notification in the Federal Register, providing appropriate time for additional public comment as necessary.

e. If the Council chooses to deviate from the ABC control rule(s) and formulas for specifying ACLs and ACTs that the Council previously approved and that were implemented in a fishery management plan amendment to the FMP, this abbreviated process would not apply, and either the framework procedure would apply with the preparation of a regulatory amendment or a fishery management plan amendment would be prepared. Additionally, the Council may choose to prepare a regulatory amendment or a fishery management plan amendment even if they do not deviate from the previously approved ABC control rule(s) and formulas for specifying ACLs and ACTs.

Biological Effects

This administrative action could have indirect positive biological effects in that adjustments to harvest levels would not be subject to regulatory delays as is currently the case. As such, biological benefits may result due to the ability to quickly implement appropriate levels of harvest in response to the latest scientific information to maintain harvest levels at or below the ACL. When stock assessments indicate large decreases in the ACLs are needed, a quick adjustment to the catch level would likely have positive biological effects. The Southeast Data, Assessment, and Review (SEDAR) process currently only produces one stock assessment for a species every 3 to 5 years. As such, the data utilized in the SEDAR assessment are at least one year old by the time the assessment results become available and can be used for management purposes. It is, therefore, advantageous to make any modifications to the existing management process, as proposed under **Alternative 2 (Preferred)**, to expedite fishing level adjustments for snapper grouper species. However, the abbreviated process would not be able to be used if the South Atlantic Council were to deviate from the ABC control rule or adopt new formulas for specifying ACLs and ACTs.

Economic Effects

Alternative 1 (No Action) could negatively impact the recreational and commercial fishing sectors should new data indicate that a stock had improved but the South Atlantic Council had no means to rapidly increase the ACL, resulting in loss of opportunity, income, and/or recreational angling experiences. However, if an assessment indicated a substantial decrease in the ACL was needed, **Alternative 1 (No Action)** would retain a more deliberative process of ensuring the public was well-informed regarding the needed changes in catch levels. **Alternative 2 (Preferred)** could result in positive or negative economic effects. When stock assessments indicate ACLs can be increased, quick adjustments for ACLs would allow for positive economic effects without negatively affecting the sustainability of the stock. On the other hand, when stock assessments indicate large decreases in the ACLs are needed, there would likely be negative economic effects by moving quickly with a decrease in a catch level. However, the South Atlantic Council could choose to modify the ACL through a regulatory amendment rather than an abbreviated framework process.

Social Effects

The process by which catch limits can be adjusted based on new information, stock assessment updates, and SSC recommendations contributes directly to benefits for the commercial and for-hire fleets, recreational anglers, businesses associated with fishing, and coastal communities. Catch limits and AMs can potentially have significant impacts on fishermen and communities if harvest of an important species is not allowed or closes early in the season. Although the long-term benefits may balance out these short-term negative impacts, in some situations it can be expected that fishing behavior may change permanently; such as when a closure is implemented that limits income from fishing for a certain period of time.

Action 5. Modify placement of blue runner in a fishery management unit and/or modify management measures for blue runner

Alternative 1 (No Action). Blue runner are managed under the Snapper Grouper FMP. A federal South Atlantic Unlimited or 225-Pound Snapper Grouper Permit is required to commercially harvest and sell blue runner. A federal Commercial Dealer Permit is required to purchase blue runner harvested from federal waters. The commercial ACL for blue runner is 188,329 lbs whole weight (ww) and the commercial allocation is 15% of the total ACL. If the commercial ACL is met or is projected to be met, all subsequent purchase and sale is prohibited. If the commercial ACL is exceeded, the Regional Administrator will publish a notice to reduce the ACL in the following season by the amount of the overage, but only if the species is overfished.

The recreational ACL for blue runner is 1,101,612 lbs ww. There is a recreational ACT for blue runner, which equals $ACL \times (1\text{-percent standard error})$ or $ACL \times 0.5$, whichever is greater. If the annual recreational landings exceed the recreational ACL in a given year, the following year's landings will be monitored in-season for persistence in increased landings. The Regional Administrator will publish a notice to reduce the length of the recreational fishing season as necessary. Sale of recreationally harvested blue runner from federal waters is prohibited (must have a South Atlantic Unlimited or 225-Pound permit to sell blue runner).

Alternative 2 (Preferred). Remove blue runner from the Snapper Grouper FMP.

Alternative 3. Retain blue runner in the Snapper Grouper FMP but allow commercial harvest and sale of blue runner for vessels with a commercial Spanish Mackerel Permit or a South Atlantic Unlimited or 225-Pound Permit for Snapper Grouper. Gillnets are an allowable gear for only blue runner in the snapper grouper fishery.

Alternative 4. Retain blue runner in the Snapper Grouper FMP but exempt it from the South Atlantic Unlimited or 225-Pound Snapper Grouper Permit requirement for purchase, harvest, and sale.

Biological Effects

South Atlantic commercial snapper grouper and mackerel fishermen do not commonly target blue runner. Blue runner constituted less than 3% of the total commercial snapper grouper harvest and less than 3.2% of the mackerel harvest in the South Atlantic from 2000 to 2011 (**Table S-1**). However, blue runner is often caught as bycatch in the mackerel fishery, and some mackerel fishermen sell incidentally caught blue runner to supplement their income. Under **Alternative 1 (No Action)**, blue runner would continue to be part of the Snapper Grouper FMU. Only fishermen with a valid South Atlantic Unlimited Snapper Grouper Permit or 225-Pound Permit would be legally allowed to commercially harvest blue runner from federal waters and those entities could sell blue runner only to dealers with a valid commercial Snapper Grouper Dealer Permit. It is noted that the sale of recreationally harvested snapper grouper species was prohibited in 2009.

Table S-1. Total annual commercial landings (pounds whole weight) of snapper grouper species, mackerel (king and Spanish), and total commercial landings of blue runner (pounds whole weight) in the South Atlantic from 2000 to 2011.

Year	Total snapper grouper	Total Mackerel	Total blue runner	Percent SG blue runner	Percent Mackerel blue runner
2000	9,314,188	6,092,744	156,832	1.68%	2.57%
2001	8,759,531	6,074,566	158,453	1.81%	2.61%
2002	8,276,934	5,581,737	132,756	1.60%	2.38%
2003	6,421,749	6,563,229	108,412	1.69%	1.65%
2004	9,002,185	6,963,918	149,080	1.66%	2.14%
2005	8,104,573	7,009,838	128,773	1.59%	1.84%
2006	7,433,209	7,912,722	155,450	2.09%	1.96%
2007	7,440,210	7,636,726	130,939	1.76%	1.71%
2008	8,553,781	7,188,949	192,593	2.25%	2.68%
2009	8,959,344	8,549,078	259,387	2.90%	3.03%
2010	8,402,187	8,843,515	223,954	2.67%	2.53%
2011	7,981,696	7,514,259	237,028	2.97%	3.15%

Source: NMFS SEFSC

In the South Atlantic, there is a robust live bait fishery for blue runner. Blue runner are harvested live as baitfish for pelagic and king mackerel recreational fishing; however, the majority of this activity takes place in state waters by non-federally permitted recreational fishermen. Therefore, those landings of blue runner would be captured by the Marine Recreational Information Program (MRIP) and counted against the recreational ACL.

Alternative 2 (Preferred) would remove blue runner from the Snapper Grouper FMP. Blue runner are primarily harvested in state waters of Florida, where there currently are management measures in place. If blue runner was removed from the FMP, it would no longer be under federal management and harvest (commercial and recreational) would not be constrained by federal ACLs. However, the state of Florida has indicated that it would consider extending management measures of blue runner into federal waters. At the April 2013 Florida Fish and Wildlife Conservation Commission (FWC) meeting, the Commissioners gave staff direction of their desire to assume management of blue runner in federal

waters off Florida and to review current state rules for blue runner (letter from Ken Wright, FWC Chair to David Cupka, South Atlantic Council Chair dated April 29, 2013). The biological effects of removing blue runner from the Snapper Grouper FMU may be negative if the species' management is not assumed by another entity, such as the state of Florida. If blue runner was removed from the Snapper Grouper FMP and there were no management measures in place in federal waters for blue runner, there could be a negative impact in the stock. However, this is not the case as Florida regulations will be extended to federal waters.

Neither **Alternatives 3** nor **4** propose changes that would result in direct biological impacts to the blue runner stock in the South Atlantic. Both alternatives propose administrative changes to allow the harvest of blue runner to continue as it has been taking place for over a decade. Hence, no significant impacts over the status quo would be expected. However, an indirect impact could result from removal of a permit requirement for blue runner, as proposed under **Alternative 4**. The species would still require federal management but there would be no mechanism in place for National Marine Fisheries Service to reliably collect effort data (i.e., logbook program) to support future stock assessments. In addition, if snapper grouper permit holders are allowed to target blue runner with gillnet gear, as would occur under **Alternatives 3** and **4**, they could incidentally capture Spanish mackerel. If those fishermen do not also hold a commercial Spanish mackerel permit, then those mackerel would have to be discarded, potentially causing some mortality of Spanish mackerel that was not occurring prior.

Currently, gillnets are a prohibited gear type in the snapper grouper fishery. If gillnets were added as an allowable gear type for blue runner under the Snapper Grouper FMP, an ESA consultation would need to be reinitiated for the Snapper Grouper FMP to analyze the potential impacts gillnets could have on ESA-listed species. Additionally, use of gillnets to target blue runner could increase bycatch of other snapper grouper species that co-occur with blue runner.

Economic Effects

Alternative 1 (No Action) would have significant negative economic effects to those fishermen currently selling blue runner, but are not in compliance with applicable law. **Alternative 2 (Preferred)** would have positive economic effects compared to **Alternative 1 (No Action)**. **Alternative 3** would allow harvest of blue runner with gillnet gear by fishermen with Snapper Grouper or Spanish Mackerel Permits, and continue to allow Spanish mackerel fishermen and snapper grouper fishermen to harvest and sell blue runner. This would have positive socio-economic impacts in that fishermen who have depended on the extra income from the sale of blue runner would be allowed to continue to do so legally. Negative socio-economic impacts may result from the current requirement that snapper grouper species be sold only to a licensed snapper grouper dealer. However, the South Atlantic and Gulf of Mexico Councils have approved an amendment that, if approved by the Secretary of Commerce, would implement a generic dealer permit for multiple fisheries including snapper grouper and mackerel, thereby alleviating this potential negative socio-economic impact. The economic effects of **Alternatives 2 (Preferred)** and **3** would be similar.

Alternative 4 would allow anyone to harvest and sell blue runner, regardless of whether or not they had a valid South Atlantic Unlimited or 225-Pound Snapper Grouper Permit. However, this option would not remove the gillnet prohibition for harvest of species in the snapper grouper FMP, which could

negatively impact small fishing businesses that depend on the blue runner gillnet landings during part of the year. Additionally, current snapper grouper permit holders may experience indirect economic effects due to lost opportunity. The permit would no longer allow them exclusive rights to harvest blue runner over any other fisherman. In this regard, **Alternative 4** would result in more negative effects than **Alternative 2 (Preferred)**, but would be expected to result in more positive economic effects than **Alternative 1 (No Action)** assuming current applicable law is enforced in the future.

Social Effects

While blue runner has a relatively minimal economic and social value to South Atlantic fishing communities compared to other species, there are some vessels that catch blue runner with gillnets while harvesting Spanish mackerel, particularly around Cape Canaveral, Florida, and the fishermen working on these vessels may be dependent on blue runner catch during the late summer and early fall. It is likely that these are small operations and blue runner landings represent a significant part of their income. **Alternative 1 (No Action)** would have negative impacts on the small vessels that currently only have Spanish mackerel permits by either requiring each fisherman to purchase two South Atlantic Snapper Grouper Unlimited Permits and maintaining permit fees, or by not being allowed to legally land and sell blue runner. Additionally, any dealers who depend on a supply of blue runner during late summer and early fall would also be affected. Removing blue runner from the Snapper Grouper FMP (**Preferred Alternative 2**) would be beneficial to fishermen without South Atlantic Unlimited or 225-Pound Snapper Grouper Permits who harvest blue runner with gillnets because it would not require an additional permit and would allow harvest with gillnet. This would also be expected to have no negative impacts on fishermen with South Atlantic Unlimited or 225-Pound Snapper Grouper Permits who harvest blue runner with hook-and-line. **Alternative 3** may negatively impact fishermen in that the sale of blue runner would be limited to dealers possessing a Snapper Grouper Commercial Dealer Permit. However, as previously mentioned, a generic amendment that would implement a single dealer permit for multiple fisheries is pending Secretarial review/approval. **Alternative 4** would not place the additional burden on gillnet fishermen of acquiring a South Atlantic Unlimited or 225-Pound Snapper Grouper Permit but would also not remove the gillnet prohibition for harvest of blue runner, which could negatively impact small fishing businesses that depend on the blue runner gillnet landings during part of the year.

Chapter 1. Introduction

1.1 What Actions Are Being Proposed? (Purposes)

Amendment 27 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (Amendment 27) would: (1) extend the South Atlantic Fishery Management Council's (South Atlantic Council) management authority for Nassau grouper to include federal waters of the Gulf of Mexico; (2) increase the number of crew members allowed on dual-permitted snapper grouper vessels (vessels that have both a federal South Atlantic Charter/Headboat Permit for Snapper Grouper and a South Atlantic Unlimited or 225-Pound Snapper Grouper Permit); (3) address captain and crew retention of bag limit quantities of snapper grouper species; (4) modify Section I of the Framework Procedure for the Snapper Grouper Fishery of the South Atlantic Region (Framework) to allow adjustments of the acceptable biological catch (ABC), the annual catch limit (ACL), and the annual catch target (ACT) via an abbreviated framework process; and (5) modify management measures for blue runner.

South Atlantic Fishery Management Council

- Responsible for conservation and management of fish stocks in the South Atlantic region
- Consists of 13 voting members: 8 appointed by the Secretary of Commerce, 1 representative from each of the 4 South Atlantic states, the Southeast Regional Director of National Marine Fisheries Service (NMFS); and 4 non-voting members
- Responsible for developing fishery management plans and amendments under the Magnuson-Stevens Fishery Conservation and Management Act; and recommend actions to NMFS for implementation
- Management area is from 3 to 200 miles off the coasts of North Carolina, South Carolina, Georgia, and east Florida through Key West with the exception of Mackerel which is from New York to Florida, and Dolphin-Wahoo, which is from Maine to Florida

Actions Removed from the Document for Future Consideration

Amendment 27 originally included five additional actions that dealt with jurisdictional management issues for yellowtail snapper and mutton snapper. Those actions included:

- Modifying the management jurisdiction for yellowtail snapper in the southeast region;
- Addressing cross-jurisdictional permit issues for harvest of yellowtail snapper;
- Modifying the management jurisdiction for mutton snapper in the southeast region;
- Addressing cross-jurisdictional permits issues for harvest of mutton snapper; and
- Modifying the commercial and recreational sector allocations for yellowtail snapper and mutton snapper to be consistent with the transfer in management authority to the South Atlantic Council.

During their December 2012 meeting, the South Atlantic Council discussed the Gulf of Mexico Fishery Management Council's (Gulf of Mexico Council) request to not transfer management authority of yellowtail snapper and mutton snapper to the South Atlantic Council, and instead form a committee to address jurisdictional management of yellowtail snapper and mutton snapper. In light of this

development, the South Atlantic Council voted to remove the five actions that pertained to yellowtail snapper and mutton snapper from Amendment 27. The South Atlantic Council and the Gulf of Mexico Council recently created a Joint Committee on South Florida Management Issues to formulate recommendations for future management of species that cross jurisdictional boundaries, like yellowtail snapper and mutton snapper.

1.2 Who is Proposing the Actions?

At their September 2012 meeting, the South Atlantic Council requested development of an amendment to the Snapper Grouper FMP to: extend jurisdictional management of Nassau grouper; modify the snapper grouper framework procedures to allow ABCs, ACLs and ACTs to be adjusted via an abbreviated framework process; and address modification to management measures for blue runner. At their December 2012 meeting, the South Atlantic Council requested that actions to increase the number of crew members that are allowed onboard dual-permitted snapper grouper vessels (vessels that have both a federal South Atlantic Charter/Headboat Permit for Snapper Grouper and a South Atlantic Unlimited or 225-Pound Snapper Grouper Permit), and to modify the current restrictions on crew possession of bag limit quantities of snapper grouper species be added to the amendment.

1.3 Where is the Project Located?

Management of the federal snapper grouper fishery, located off the southeastern United States (South Atlantic) in the 3-200 nautical miles U.S. exclusive economic zone (EEZ), is conducted under the Snapper Grouper FMP (SAFMC 1983) (**Figure 1.3.1**). In December 2011, the National Marine Fisheries Service (NMFS), under the authority granted to the Secretary of Commerce, designated the South Atlantic Council as the responsible Council to manage Nassau grouper in the Gulf of Mexico under the Snapper Grouper FMP (76 FR 78245). The Gulf of Mexico Council has been managing Nassau grouper in the Fishery Management Plan for Reef Fish Resources of the Gulf of Mexico (GMFMC 1984). Action is needed by the South Atlantic Council to extend management of Nassau grouper into the Gulf of Mexico.

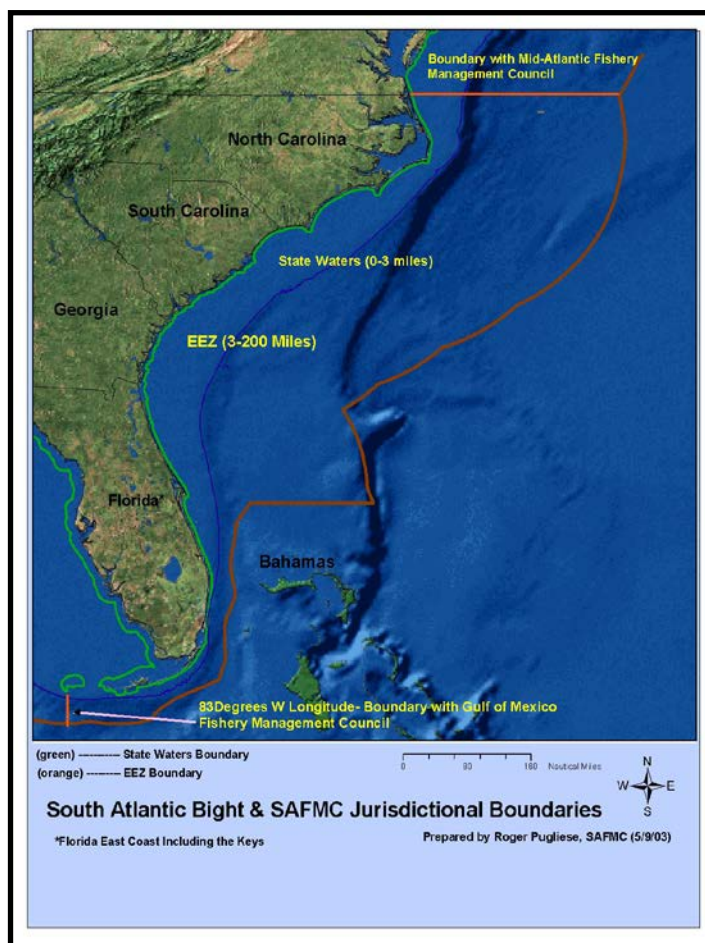


Figure 1.3.1. Jurisdictional boundaries of the South Atlantic Fishery Management Council.

Therefore, if implemented through rulemaking, the action to modify jurisdictional management of Nassau grouper would affect the Gulf of Mexico Council’s area of jurisdiction as well as the South Atlantic Council’s area of jurisdiction. All other actions in this amendment would affect the snapper grouper fishery operating in the South Atlantic region.

1.4 Why is the South Atlantic Council and NMFS Considering Action? (Needs)

Nassau Grouper

On December 16, 2011, a notice of agency action was published in the *Federal Register* (76 FR 78245), which designated the South Atlantic Council management authority over Nassau grouper in the Gulf of Mexico. The Gulf of Mexico Council chose to remove Nassau grouper from their reef fish fishery management plan with the intention that the South Atlantic Council would extend their area of jurisdiction for management of Nassau grouper to include federal waters of the Gulf of Mexico. The South Atlantic Council is addressing the issue of extending its management authority over Nassau grouper to include the Gulf of Mexico EEZ in Amendment 27.

Crew Member Limit on Dual-Permitted Snapper Grouper Vessels

Currently, there is a crew size limit of 3 for vessels associated with both a South Atlantic Charter/Headboat Permit for Snapper Grouper and a South Atlantic Unlimited or 225-Pound Permit for Snapper Grouper (referred to as “dual-permitted” vessels). This crew size limit prevents a dual-permitted vessel from engaging in a charter/headboat trip while landing fish in excess of the recreational bag limits. However, a safety concern may arise under the current crew size regulations when dual-permitted vessels are spearfishing commercially. The maximum crew size of 3 persons prohibits fishermen from fishing in pairs using the buddy system while having a standby diver and captain at the surface as recommended by the U.S. Coast Guard diving operations manual. The South Atlantic Council has received requests from dual-permitted vessel operators to allow a crew size of at least 4 persons. The increase in crew size would allow two persons to remain on the vessel while there are two divers in the water, thereby contributing to increased safety at sea.

Crew Retention of Bag Limit Quantities of Snapper Grouper

During their December 2012 meeting, the South Atlantic Council discussed the issue of consistency of regulations prohibiting retention of bag limit quantities of some snapper grouper species and not others for captain and crew of for-hire vessels. Therefore, the South Atlantic Council determined it is appropriate to address crew retention of snapper grouper species in this amendment and is considering either removal of the retention restrictions that currently exist or making the restriction apply to all species in the snapper grouper fishery management unit (FMU). Consistent regulations for all snapper grouper species would alleviate confusion regarding which species the provision applies to, and would aid in law enforcement efforts.

Snapper Grouper Framework Modifications

Currently, the Snapper Grouper Framework allows ABCs, ACLs, and ACTs to be modified for snapper grouper species via the regulatory amendment process, which most often requires the development of an amendment and associated National Environmental Policy Act documents in addition to proposed and final rules with public comment periods. This process can be lengthy, and prevents fishery managers from quickly implementing harvest parameters in response to new scientific information when needed. The lag time between when new information becomes available and when catch levels can be adjusted has the potential to result in adverse impacts on the economic and biological environments. Therefore, the South Atlantic Council is considering an action in Amendment 27 that would allow ABCs, ACLs, and ACTs to be modified through an abbreviated framework process that should allow catch levels to be adjusted more quickly.

Blue Runner

The South Atlantic Council has become aware that for many years, South Atlantic mackerel gillnet fishery participants have been selling blue runner caught in gillnets as bycatch to supplement their incomes without having a valid South Atlantic Unlimited or 225-Pound Snapper Grouper Permit, which is a requirement under the Snapper Grouper FMP. It is likely that mackerel fishery participants were not aware that: Blue runner is included in the snapper grouper fishery management unit; the species is managed with commercial and recreational ACLs; gillnets are not an approved gear in the snapper grouper fishery; and a restriction is in place on the sale of bag limit caught quantities of fish under the Snapper Grouper FMP. Because some mackerel fishery participants derive up to 30% of their income from the sale of blue runner, the South Atlantic Council is considering taking action to allow fishermen, who capture blue runner as bycatch while using gillnets to fish for South Atlantic mackerel species, to be able to legally sell blue runner and thus minimize adverse socio-economic impacts.

Purpose for Action

The *purpose* of Amendment 27 is to: (1) establish the South Atlantic Council as the responsible entity for managing Nassau grouper throughout its range including federal waters of the Gulf of Mexico; (2) modify the crew member limit on vessels with both a South Atlantic Charter/Headboat Permit for Snapper Grouper and a South Atlantic Unlimited or 225-Pound Permit for Snapper Grouper (referred to as “dual-permitted” vessels); (3) modify the current restriction on crew retention of bag limit quantities of snapper grouper species; (4) minimize regulatory delay when adjustments to snapper grouper species’ ABC, ACLs, and ACTs are needed as a result of new stock assessments; and (5) address harvest of blue runner by commercial fishermen who do not possess a South Atlantic Snapper Grouper Permit.

Need for Action

The *need* for Amendment 27 is to: (1) respond to the Gulf of Mexico Council’s request for the South Atlantic Council to assume management of Nassau grouper in the Southeast U.S.; (2) address safety at sea concerns related to the current limit of three crew members for dual-permitted vessels; (3) make regulations regarding retention of snapper grouper species by crew members consistent for all snapper grouper species; (4) expedite adjustments to ABCs, ACLs, and ACTs for snapper grouper species when a new stock assessment indicates adjustments are warranted; and (5) minimize socio-economic impacts to fishermen without a South Atlantic Snapper Grouper Permit who harvest and sell blue runner to supplement their income.

1.5 What is the History of Management for Blue Runner and Nassau Grouper?

Regulations for snapper grouper species in the South Atlantic were first implemented in 1983. See **Appendix D** for a complete list of management actions affecting Nassau grouper and blue runner.

Chapter 2. Description of Alternatives and Summary of their Effects

2.1 Action 1. Extend the South Atlantic Council's area of jurisdiction for management of Nassau grouper to include the Gulf of Mexico

2.1.1 Alternatives

Alternative 1 (No Action). Nassau grouper harvest is prohibited in the South Atlantic and Gulf of Mexico. The South Atlantic Council's area of jurisdiction for management of Nassau grouper is limited to federal waters of the South Atlantic.

Alternative 2 (Preferred). The South Atlantic Council would extend its jurisdictional authority for management of Nassau grouper to include federal waters of the Gulf of Mexico. Harvest of Nassau grouper in the Gulf of Mexico exclusive economic zone (EEZ) and the South Atlantic EEZ would continue to be prohibited.

2.1.2 Summary of the Effects of the Alternatives

The National Marine Fisheries Service (NMFS), under the authority granted to it by the Secretary of Commerce, designated the South Atlantic Fishery Management Council (South Atlantic Council) as the responsible Council to manage Nassau grouper in the Gulf of Mexico under the Snapper Grouper FMP (76 FR 78245, December 16, 2011). Prior to this designation, the Gulf of Mexico Fishery Management Council was the responsible council to manage Nassau grouper in the Gulf of Mexico through the Fishery Management Plan for Reef Fish Resources of the Gulf of Mexico (Gulf Reef Fish FMP; GMFMC 1984). The notice of agency action indicated that the South Atlantic Council is expected to extend the prohibition on harvest of Nassau grouper into the Gulf of Mexico. The notice of agency action states that any action to remove the current prohibitions in the Gulf of Mexico would have a delayed effective date, so that it would be implemented simultaneously with a subsequent South Atlantic Council action to extend the harvest prohibition. Therefore, action is needed by the South Atlantic Council to extend management of Nassau grouper into the Gulf of Mexico.

Alternative 1 (No Action) would not allow for the South Atlantic Council to manage Nassau grouper as required. However, there is no sunset date associated with the delayed effectiveness outlined in the notice of agency action. Therefore, under **Alternative 1 (No Action)** the current harvest prohibition in the Gulf of Mexico would remain. If the South Atlantic Council were to choose **Alternative 1 (No Action)**, any future adjustments to commercial and recreational harvest levels for Nassau grouper could not be made by the South Atlantic Council in the Gulf of Mexico. Nassau grouper has been under a harvest moratorium since 1992 (SAFMC 1991) due to concerns of overexploitation. The current annual

catch limit (ACL) for Nassau grouper in both the South Atlantic and Gulf of Mexico is zero. **Alternative 2 (Preferred)** is an administrative action and no changes in the biological effects would be expected as the alternative would simply allow for the South Atlantic Council to continue the harvest prohibition for Nassau grouper in the Gulf of Mexico and would give them authority to allow some level of harvest in the Gulf of Mexico in the future if needed.

If the South Atlantic Council's jurisdiction for Nassau grouper extends to the Gulf of Mexico, it is expected there will be no economic effects as Nassau grouper are not currently targeted, nor can they be harvested in either the South Atlantic or Gulf of Mexico.

Currently, the notice of agency action indicates the harvest of Nassau grouper in the Gulf of Mexico remains prohibited, and any action to change this would not be effective until the South Atlantic Council gained management control of the species. Nassau grouper is currently under review for listing under the Endangered Species Act (ESA) and management of the species in federal waters contributes to federal protection of a potentially threatened or endangered fish. Administrative impacts of extending management of Nassau grouper into the Gulf of Mexico would be negligible since the status quo already includes a prohibition on harvest of the species in or from the Gulf of Mexico and the South Atlantic Council would continue that prohibition.

2.2 Action 2. Modify the crew size restriction for dual-permitted snapper grouper vessels

2.2.1 Alternatives

Alternative 1 (No Action). The current limit on the number of crew members on any dual-permitted vessel (a vessel with both a South Atlantic Charter/Headboat Permit for Snapper Grouper and a South Atlantic Unlimited or 225-Pound Permit for Snapper Grouper) is three.

Alternative 2. Eliminate the limit of three crew members for dual-permitted vessels.

Alternative 3 (Preferred). Increase the limit to four crew members for dual-permitted vessels.

2.2.2 Summary of the Effects of the Alternatives

Maintaining the current crew limit (**Alternative 1 (No Action)**), would not address the safety-at-sea issues presented when divers are not able to properly utilize the buddy system while commercial diving as recommended in the U.S. Coast Guard diving operations manual. **Alternative 2** would address the safety-at-sea issues associated with only having three crew members while commercial diving, but it may also increase the risk that dual-permitted vessels could engage in for-hire trips while commercial fishing, which is prohibited. **Alternative 3 (Preferred)** would allow two persons to remain onboard while there are two divers in the water, thereby increasing the safety of commercial divers consistent with Magnuson-Stevens Fishery Conservation and Management Act National Standard 10. Although an increase in crew size can result in a change in the rate of harvest or vessel efficiency, this would have neutral biological impacts because recreational harvest of snapper grouper species is limited to the recreational ACL.

Economic effects to the overall economy are not anticipated from the implementation of either **Alternative 2 or 3 (Preferred)**. The alternatives, however, could have economic effects on individual trip costs. Bringing on a fourth crew member (**Alternatives 2 and 3 (Preferred)**) or more (**Alternative 2**) would likely increase trip costs as a result of additional compensation for the additional crew member(s). Potential trip profitability would be weighed against safety concerns related to having additional crew members onboard in determining the value of additional crew. By allowing for more than four crew members onboard, **Alternative 2** has the potential for greater economic effects on trip costs than **Alternative 3 (Preferred)**.

Alternative 1 (No Action) would be expected to result in the most significant negative social effects on fishermen working on dual-permitted vessels among the alternatives in this action. The current crew size limit may prohibit fishermen from maximizing efficiency on each trip and taking advantage of both the commercial and charter permits associated with the vessel. Additionally, the current crew size limit of three per vessel may hinder safe diving practices by not providing diving partners for each potential commercial diver. **Alternatives 2 and 3 (Preferred)** would be expected to decrease the negative impacts of the current regulations and increase the potential benefits from safe and profitable commercial dive trips on dual-permitted vessels.

2.3 Action 3. Modify bag limit restriction on snapper grouper species for captains and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper

2.3.1 Alternatives

Alternative 1 (No Action). Captain and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper may not retain bag limit quantities of the following species in the snapper grouper fishery management unit (FMU): gag; black grouper; red grouper; scamp; red hind; rock hind; coney; graysby; yellowfin grouper; yellowmouth grouper; yellowedge grouper; snowy grouper; misty grouper; vermilion snapper; sand tilefish; blueline tilefish; and golden tilefish.

Alternative 2 (Preferred). Remove the snapper grouper species retention restrictions for captain and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper.

Alternative 3. Establish a bag limit of zero for captain and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper for *all* species included in the snapper grouper FMU.

2.3.2 Summary of the Effects of the Alternatives

Alternative 1 (No Action) would continue the biological benefits associated with retention restrictions of bag limit quantities of certain snapper grouper species for captain and crew members of for-hire vessels. Amendment 16 to the Snapper Grouper FMP indicated the harvest prohibition for the species identified in **Alternative 1 (No Action)** by captain and crew of federally-permitted charter vessels and headboats would result in a very small reduction in harvest. In addition, the current restrictions on captain

and crew bag limit retention under **Alternative 1 (No Action)** are likely to have different biological impacts depending on the species. For example, restrictions on retaining deepwater species such as snowy grouper or blueline tilefish could result in dead discards because these species are unlikely to survive catch and release. **Alternative 2 (Preferred)** proposes to remove the current restriction on retaining bag limit quantities of vermilion snapper, groupers, and tilefish. This alternative would therefore allow the captains and crew of for-hire vessels to retain the recreational bag limit of gag, black grouper, red grouper, scamp, red hind, rock hind, coney, graysby, yellowfin grouper, yellowmouth grouper, yellowedge grouper, snowy grouper, misty grouper, vermilion snapper, sand tilefish, blueline tilefish, and golden tilefish. The analyses for **Alternatives 2 (Preferred)** and **3**, accounted for individual and aggregate bag limits for managed stocks. Impacts were only predicted if trip level harvest hit a bag limit. If a trip hit a bag limit, the analysis assumed 2 additional anglers (1 captain, 1 crew) on charter trips reporting to MRFSS and 3 additional anglers (1 captain, 2 crew) on headboat trips reporting to the SEFSC headboat survey. Based on this information, **Alternative 2 (Preferred)** would result in an overall increase in harvest of the most commonly landed snapper grouper species by approximately 0.02% for the headboat sector and 0.35% for the charterboat sector (**Table 2.3.1**). This increase is negligible and would be unlikely to result in negative biological impacts, particularly since ACLs and accountability measures (AMs) are in place to prevent overfishing from occurring. **Alternative 3** would result in a slight decrease in harvest of the most commonly caught snapper grouper species, a 0.86% reduction for the headboat sector and a 4.73% reduction for the charterboat sector (**Table 2.3.2**). Therefore, **Alternative 3** is not expected to result in significant biological benefits for the snapper grouper species.

Table 2.3.1 Percent increase in headboat and charterboat harvest for most commonly landed snapper grouper species under **Preferred Alternative 2** using average landings from 2009-2011.

	Headboat	Charterboat
Harvest increase	0.02%	0.35%

Table 2.3.2 Percent decrease in headboat and charterboat harvest for most commonly landed snapper grouper species under **Alternative 3** using average landings from 2009-2011.

	Headboat	Charterboat
Harvest decrease	-0.86%	-4.73%

Alternative 1 (No Action) would perpetuate confusion among the captain and crew on a for-hire vessel because the restriction does not apply to all snapper grouper species. This inconsistency may also hinder effective enforcement. Both **Alternatives 2 (Preferred)** and **3** would establish a single regulation for retention of bag limit quantities of snapper grouper species by for-hire crew members and captain, which would aid law enforcement efforts. The opportunity to retain bag limit quantities of all snapper grouper species (those under a bag limit) on for-hire trips, as proposed under **Alternative 2 (Preferred)**, would be expected to be beneficial to for-hire captain and crew by providing fish for personal consumption. For species with low recreational ACLs (such as snowy grouper), however, allowing captain and crew to retain bag limits may cause the ACL to be met earlier and reduce the amount of time private recreational anglers have access to certain species. In addition, **Alternative 2 (Preferred)** could result in increased incentive to harvest the maximum bag limit for some species on for-hire trips, which could cause conflict among the for-hire fleet.

Several key issues surround the evaluation of the economic effects of the various alternatives under this action. Captain and crew of for-hire vessels provide labor services for each recreational trip and may not be strictly considered recreational anglers. If they were allowed to retain bag limits of certain snapper grouper species, the valuation of those retained fish would depend on their ultimate use. Captain and crew can take the fish home, give fish to other people (such as their angling customers), or sell them. Such actions would yield some form of economic values that cannot be adequately estimated. While the sale of recreationally-caught snapper grouper species is illegal, it remains difficult to enforce, especially if the actual distribution is done after the trip. If the fish were distributed to the angling customers in one way or another, those fish may assume economic values that are comparable to economic values derived by an angler for keeping the fish. It is also possible for the captain and crew bag limit to be used for marketing purposes. Anglers could be enticed to take fishing trips if they are potentially allowed to keep fish above the bag limit. Those trips could also be assigned economic values in the form of additional revenue to the vessel. If, on the other hand, captain and crew of for-hire vessels were prohibited from retaining bag limits, those potential consumer surplus and net operating revenue values would be forgone.

Prohibition of bag limit retention for captain and crew for all snapper grouper species (**Alternative 3**) would likely result in some negative impacts for crew who routinely take the bag limit of allowed species for personal consumption. For several species in the snapper grouper FMU that are not overfished or experiencing overfishing, bag limit restrictions for the for-hire crew members would not be expected to result in any benefits for the fishermen and other resource users.

Under **Alternatives 1 (No Action)** and **2 (Preferred)** regulations would continue to be inconsistent regarding retention of snapper grouper species by captain and crew of for-hire vessels in the South Atlantic. Therefore, **Alternatives 1 (No Action)** and **Alternative 2 (Preferred)** would have the most negative administrative impacts of the alternatives considered.

2.4 Action 4. Modify Section I of the Snapper Grouper FMP Framework procedure

2.4.1 Alternatives

Alternative 1 (No Action). Section I of the snapper grouper framework procedure, as modified through Amendment 17B, is as follows:

I. Snapper Grouper FMP Framework Procedure for Specification of Annual Catch Limits, Annual Catch Targets, Overfishing Limits, Acceptable Biological Catch, and annual adjustments:

Procedure for Specifications:

1. At times determined by the Southeast Data, Assessment, and Review (SEDAR) Steering Committee, and in consultation with the South Atlantic Council and NMFS Southeast Regional Office (SERO), stock assessments or assessment updates will be conducted under the SEDAR process for stocks or stock complexes managed under the Snapper Grouper FMP. Each SEDAR stock assessment or assessment update will: a) assess to the extent possible the current biomass,

biomass proxy, or SPR levels for each stock; b) estimate fishing mortality (F) in relation to F_{MSY} (MFMT) and F_{OY} ; c) determine the overfishing limit (OFL); d) estimate other population parameters deemed appropriate; e) summarize statistics on the fishery for each stock or stock complex; f) specify the geographical variations in stock abundance, mortality recruitment, and age of entry into the fishery for each stock or stock complex; and g) develop estimates of B_{MSY} .

2. The Council will consider SEDAR stock assessments or other documentation the Council deems appropriate to provide the biological analysis and data listed above in paragraph 1. Either the Southeast Fisheries Science Center (SEFSC) or the stock assessment branch of a state agency may serve as the lead in conducting the analysis, as determined by the SEDAR Steering Committee. The Scientific and Statistical Committee (SSC) will prepare a written report to the Council specifying an OFL and may recommend a range of ABCs for each stock complex that is in need of catch reductions for attaining or maintaining OY. The OFL is the annual harvest level corresponding to fishing at MFMT (F_{MSY}). The ABC range is intended to provide guidance to the SSC and is the OFL as reduced due to scientific uncertainty in order to reduce the probability that overfishing will occur in a year. To the extent practicable, the probability that overfishing will occur at various levels of ABC and the annual transitional yields (i.e., catch streams) calculated for each level of fishing mortality within the ABC range should be included with the recommended range.

For overfished stocks, the recommended range of ABCs shall be calculated so as to end overfishing and achieve snapper grouper population levels at or above B_{MSY} within the rebuilding periods specified by the Council and approved by NMFS. The SEDAR report or SSC will recommend rebuilding periods based on the provisions of the National Standard Guidelines, including generation times for the affected stocks. Generation times are to be specified by the stock assessment panel based on the biological characteristics of the individual stocks. The report will recommend to the Council a B_{MSY} level and a MSST from B_{MSY} . The report may also recommend more appropriate estimates of F_{MSY} for any stock. The report may also recommend more appropriate levels for the maximum Sustainable Yield (MSY) proxy, Optimum Yield (OY), the overfishing threshold (MFMT), and overfished threshold (MSST). For stock or stock complexes where data are inadequate to compute an OFL and recommended ABC range, the SSC will use other available information as a guide in providing their best estimate of an OFL corresponding to MFMT and ABC range that should result in not exceeding the MFMT.

3. The SSC will examine SEDAR reports or other new information, the OFL determination, and the recommended range of ABC. In addition, the SSC will examine information provided by the social scientists and economists from the Council staff and from the SERO Fisheries Social Science Branch analyzing social and economic impacts of any specification demanding adjustments of allocations, ACLs, annual catch targets (ACTs), accountability measures (AMs), quotas, bag limits, or other fishing restrictions. The SSC will use the ABC control rule to set their ABC recommendation at or below the OFL, taking in account scientific uncertainty. If the SSC sets their ABC recommendations equal to OFL, the SSC will provide its rational why it believes that level of fishing will not exceed MFMT.

4. The Council may conduct a public hearing on the reports and the SSC's ABC recommendation at, or prior, to the time it is considered by the Council for action. Other public hearings may be

held also. The Council may request a review of the report by its Snapper Grouper Advisory Panel and optionally by its socioeconomic experts and convene these groups before taking action.

5. The Council, in selecting an ACL, ACT, AM, and a stock restoration time period, if necessary, for each stock or stock complex for which an ABC has been identified, will, in addition to taking into consideration the recommendations and information provided for in paragraphs 1, 2, 3, and 4, utilize the following criteria:

a. Set ACL at or below the ABC specified by the SSC or set a series of annual ACLs at or below the projected ABCs in order to account for management uncertainty. If the Council sets ACL equal to ABC, and ABC has been set equal to OFL, the Council will provide its rationale as to why it believes that level of fishing will not exceed MFMT.

b. May subdivide the ACLs into commercial, for-hire, and private recreational sector ACLs that maximize the net benefits of the fishery to the nation. The Sector ACLs will be based on allocations determined by criteria established by the Council and specified by the Council through a plan amendment. If, for an overfished stock, harvest in any year exceeds the ACL or sector ACL, management measure and catch levels for that sector will be adjusted in accordance with the AMs established for that stock.

c. Set ACTs or sector ACTs at or below ACLs and in accordance with the provision of the AM for that stock. The ACT is the management target that accounts for management uncertainty in controlling the actual catch at or below the ACL. If an ACL is exceeded repeatedly, the Council has the option to establish an ACT if one does not already exist for a particular stock and adjust or establish AMs for that stock as well.

6. The Council will provide the SSC specification of OFL; SSC recommendation of ABC; and its recommendations to the NMFS Regional Administrator for ACLs, sector ACLs, ACTs, sector ACTs, AMs, sector AMs, and stock restoration target dates for each stock or stock complex, estimates of B_{MSY} and MSST, estimates of MFMT, and the quotas, bag limits, trip limits, size limits, closed seasons, and gear restrictions necessary to avoid exceeding the ACL or sector ACLS, along with the reports, a regulatory impact review and proper National Environmental Policy Act (NEPA) documentation, and the proposed regulations within a predetermined time as agreed upon by the Council and Regional Administrator. The Council may also recommend new levels or statements for MSY (or proxy) and OY.

7. The Regional Administrator will review the Council's recommendations and supporting information, and, if he concurs that the recommendations are consistent with the objectives of the FMP, the National Standards, and other applicable law, he shall forward for publication notice of proposed rules to the Assistant Administrator (providing appropriate time for additional public comment). The Regional Administrator will take into consideration all public comment and information received and will forward for publication in the *Federal Register* of a final rule within 30 days of the close of the public comment, or such other time as agreed upon by the Council and Regional Administrator.

8. Appropriate regulatory changes that may be implemented by final rule in the *Federal Register* include:

- a. ACLs or sector ACLs, or a series of annual ACLs or sector ACLs.
- b. ACTs or sector ACTs, or a series of annual ACTs or sector ACTs and establish ACTs for stocks which do not have an ACT.
- c. AMs or sector AMs.
- d. Bag limits, size limits, vessel trip limits, closed seasons or area, gear restrictions, and quotas designed to achieve OY and keep harvest levels from exceeding the ACL or sector ACL.
- e. The time period specified for rebuilding an overfished stock, estimated MSY and MSST for overfished stocks, and MFMT.
- f. New levels or statements of MSY (or proxy) and OY for any stock.
- g. New levels of total allowable catch (TAC).
- h. Adjust fishing seasons/years.

9. The NMFS Regional Administrator is authorized, through notice action, to conduct the following activities.

- a. Close the commercial fishery of a snapper grouper species or species group that has a commercial quota or sub-quota at such time as projected to be necessary to prevent the commercial sector from exceeding its sector ACL or ACT for the remainder of the fishing year or sub-quota season.
- b. Close the recreational fishery of a snapper grouper species or species group at such time as projected to be necessary to prevent recreational sector ACLs or ACTs from being exceeded.
- c. Reopen a commercial or recreational season that had been prematurely closed if needed to assure that a sector ACL or ACT can be reached.

10. If NMFS decides not to publish the proposed rule for the recommended management measures, or to otherwise hold the measures in abeyance, then the Regional Administrator must notify the Council of its intended action and the reasons for NMFS concern along with suggested changes to the proposed management measures that would alleviate the concerns. Such notice shall specify: 1) The applicable law with which the amendment is inconsistent; 2) the nature of such inconsistencies; and 3) recommendation concerning the action that could be taken by the Council to conform the amendment to the requirements of applicable law.

Alternative 2 (Preferred). Modify Section I of the Snapper Grouper Framework Procedure by adding a new Item #9 (and renumber the existing 9 as 10 and 10 as 11):

9. Adjustments to ABCs, ACLs, and ACTs according to the existing ABC Control Rule(s) and formulas for specifying ACLs and ACTs that have been approved by the Council and that were implemented in a fishery management plan amendment to the FMP. This abbreviated process is authorized as follows:

- a. Following the Scientific and Statistical Committee's (SSC's) review of the stock assessment, the Council will determine if changes are needed to ABC, ACL, and/or ACT and will so advise the RA.

- b. The Council will first hold a public hearing during the Council meeting during which they will review the stock assessment and the SSC's recommendations. In addition, the public will be advised prior to the meeting that the Council is considering potential changes to the ABC, ACL, and/or ACT and the Council will provide the public the opportunity to comment on the potential changes prior to and during the Council meeting.
- c. If the Council then determines that modifications to the ABC, ACL, and/or ACT are necessary and appropriate, they will notify the RA of their recommendations in a letter with the Council's analysis of the relevant biological, economic, and social information necessary to support the Council's action.
- d. The RA will review the Council's recommendations and supporting information. If the RA concurs that the Council's recommendations are consistent with the objectives of the FMP, the Magnuson-Stevens Fishery Conservation and Management Act, and all other applicable law, the RA is authorized to implement the Council's proposed action through publication of appropriate notification in the Federal Register, providing appropriate time for additional public comment as necessary.
- e. If the Council chooses to deviate from the ABC control rule(s) and formulas for specifying ACLs and ACTs that the Council previously approved and that were implemented in a fishery management plan amendment to the FMP, this abbreviated process would not apply, and either the framework procedure would apply with the preparation of a regulatory amendment or a fishery management plan amendment would be prepared. Additionally, the Council may choose to prepare a regulatory amendment or a fishery management plan amendment even if they do not deviate from the previously approved ABC control rule(s) and formulas for specifying ACLs and ACTs.

2.4.2 Summary of the Effects of the Alternatives

This administrative action could have indirect positive biological effects in that adjustments to harvest levels would not be subject to regulatory delays as is currently the case under **Alternative 1 (No Action)**. As such, biological benefits would result in that appropriate levels of harvest could be set quickly in response to the latest scientific information in order to maintain harvest levels at or below the ACL.

Alternative 1 (No Action) could negatively impact the recreational and commercial fishing sectors should new data indicate that a stock had improved but the South Atlantic Council had no means to rapidly increase the ACL, resulting in loss of opportunity, income, and/or recreational angling experiences. However, if an assessment indicated a substantial decrease in the ACL was needed **Alternative 1 (No Action)** would retain a more deliberative process of ensuring the public was well-informed regarding the needed changes in catch levels. **Alternative 2 (Preferred)** would have indirect economic effects on the snapper grouper fishery that could be negative or positive, proportionate to the level of increase or decrease of the ACL being adjusted. **Alternative 2 (Preferred)** would be expected to be beneficial to fishermen and communities by allowing for timeliness in the regulatory process and providing a route for the South Atlantic Council to make faster adjustments to ACLs and thus minimize

negative social and economic impacts. When stock assessments indicate ACLs can be increased with quick adjustments, positive social and economic effects would be expected without negatively impacting the sustainability of the stock. When stock assessments indicate large decreases in the ACLs are needed, a quick adjustment to the catch level would likely have positive biological effects but there would likely be negative social effects with moving quickly with a decrease in a catch level without a great deal of public involvement. However, the South Atlantic Council could choose to modify the ACL through a regulatory amendment rather than an abbreviated framework process. Additionally, changing the process to allow for timely adjustments could reduce uncertainty associated with older data, and may improve public perception of management by allowing the South Atlantic Council to adjust harvest levels quickly after new information becomes available. However, if the South Atlantic Council chooses to deviate from the ABC control rule, or formulas for specifying ACLs and ACTs, this abbreviated process would not apply. **Alternative 2 (Preferred)** would allow ABC, ACLs, AMs, and ACTs to be modified based on new scientific information through publication of the appropriate notification in the Federal Register, providing appropriate time for additional public comment as necessary.. This would benefit the administrative environment by eliminating the lengthier regulatory amendment process.

2.5 Action 5. Modify placement of blue runner in a fishery management unit and/or modify management measures for blue runner

2.5.1 Alternatives

Alternative 1 (No Action). Blue runner are managed under the Snapper Grouper FMP. A federal South Atlantic Unlimited or 225-Pound Snapper Grouper Permit is required to commercially harvest and sell blue runner. A federal Commercial Dealer Permit is required to purchase blue runner caught in federal waters. The commercial ACL for blue runner is 188,329 lbs whole weight (ww) and the commercial allocation is 15% of the total ACL. If the commercial ACL is met or is projected to be met, all subsequent purchase and sale is prohibited. If the commercial ACL is exceeded, the Regional Administrator will publish a notice to reduce the ACL in the following season by the amount of the overage, but only if the species is overfished.

The recreational ACL for blue runner is 1,101,612 lbs ww. There is a recreational ACT for blue runner, which equals $ACL \times (1 - \text{percent standard error})$ or $ACL \times 0.5$, whichever is greater. If the annual recreational landings exceed the recreational ACL in a given year the following year's landings will be monitored in-season for persistence in increased landings. The Regional Administrator will publish a notice to reduce the length of the recreational fishing season as necessary. Sale of recreationally harvested blue runner is prohibited (must have a South Atlantic Unlimited or 225-Pound permit to sell blue runner).

Alternative 2 (Preferred). Remove blue runner from the Snapper Grouper FMP.

Alternative 3. Retain blue runner in the Snapper Grouper FMP but allow commercial harvest and sale of blue runner for vessels associated with a commercial Spanish Mackerel Permit or a South Atlantic Unlimited or 225-Pound Permit for Snapper Grouper. Gillnets are an allowable gear for only blue runner in the snapper grouper fishery.

Alternative 4. Retain blue runner in the Snapper Grouper FMP but exempt it from the Snapper Grouper permit requirement for purchase, harvest, and sale.

2.5.2 Summary of the Effects of the Alternatives

South Atlantic commercial snapper grouper and mackerel fishermen do not commonly target blue runner. However, the South Atlantic Council has discovered that blue runner is often caught as bycatch in the mackerel fishery, and fishermen sell incidentally caught blue runner to supplement their income. Under **Alternative 1 (No Action)**, blue runner would continue to be part of the Snapper Grouper FMP. Only fishermen with a valid South Atlantic Unlimited Snapper Grouper Permit or 225-Pound Permit would be legally allowed to commercially harvest them from federal waters and sell blue runner only to dealers with a valid commercial Snapper Grouper Dealer Permit. Sale of recreationally harvested snapper grouper species was prohibited in 2009 when Amendment 15B to the FMP (SAFMC 2008b) was implemented. The majority of blue runner (99%) are harvested from state waters off Florida, with a very small portion of the landings occurring off North Carolina and South Carolina (**Table 3.3.12** and **4.5.4a**). In the South Atlantic, there is a robust baitfish fishery of blue runner for pelagic and king mackerel recreational fishing; however, the majority of this activity takes place in state waters by non-federally permitted fishermen. Therefore, those landings of blue runner would be captured by the Marine Recreational Information Program (MRIP) and counted against the recreational ACL.

Alternative 2 (Preferred) would remove blue runner from the Snapper Grouper FMU, which would remove the requirement to have a South Atlantic Snapper Grouper Unlimited or a 225-Pound Permit in order to commercially harvest blue runner in federal waters. In essence, blue runner would no longer be under federal management and blue runner harvest (commercial and recreational) would no longer be constrained by federal ACLs. Blue runner are primarily landed in state waters of Florida, where there currently are management measures in place. However, the state of Florida has indicated that it would consider extending management measures of blue runner into federal waters. At the April 2013 Florida Fish and Wildlife Conservation Commission (FWC) meeting, the Commissioners gave staff direction of their desire to assume management of blue runner in federal waters off Florida and to review current state rules for blue runner (letter from Ken Wright, FWC Chair to David Cupka, South Atlantic Council Chair dated April 29, 2013). The biological effects of removing blue runner from the Snapper Grouper FMU may be negative if the species' management is not assumed by another entity, such as the state of Florida. If blue runner was removed from the Snapper Grouper FMP and there were no management measures in place for blue runner in federal waters, there could be a negative impact on the stock. However, if this species was removed from the federal FMP then the state of Florida, as stated by their representative on the South Atlantic Council during the March 2013 meeting, would immediately begin review of blue runner rules, consider additional management measures, and extend regulations into federal waters. Regulations that currently apply to blue runner in Florida state waters are in **Section 4.5.1**.

Neither **Alternative 3** nor **Alternative 4** propose changes that would result in biological impacts to the blue runner stock in the South Atlantic. Both alternatives propose administrative changes to allow the harvest of blue runner to continue as it has been taking place for over a decade. Hence, no significant impacts over the status quo would be expected. **Alternative 3** would retain blue runner in the Snapper Grouper FMP, but allow harvest by entities holding a Spanish mackerel permit. This would alleviate the

problem with the current illegal harvest of blue runner by fishermen who do not currently hold a South Atlantic Unlimited or 225-Pound Snapper Grouper Permit. Allowing mackerel fishermen to harvest blue runner, in addition to snapper grouper fishermen, could result in the commercial ACL being met earlier during the fishing year; however, this would not be expected to have negative effects on the stock as ACLs and AMs are in place to prevent overfishing from occurring. However, if commercial snapper grouper permit holders are allowed to target blue runner with gillnet gear, as would occur under **Alternatives 3 and 4**, they could incidentally capture Spanish mackerel. If those fishermen do not also hold a commercial Spanish mackerel permit, then those mackerel would have to be discarded potentially causing some mortality of Spanish mackerel that was not occurring previously. Additionally, use of gillnets to target blue runner could increase bycatch of other snapper grouper species that co-occur with blue runner. However, increased use of gillnets to target blue runner would not be expected.

Alternative 3 would allow harvest of blue runner with gillnet gear by fishermen with Snapper Grouper or Spanish Mackerel Permits, and continue to allow Spanish mackerel fishermen and snapper grouper fishermen to harvest and sell blue runner. This would have positive socio-economic impacts in that fishermen who have depended on the extra income from the sale of blue runner would be allowed to continue to do so legally. Negative socio-economic impacts may result from the current requirement that snapper grouper species be sold only to a licensed snapper grouper dealer. However, this potential negative socio-economic impact may be alleviated because the South Atlantic and Gulf of Mexico Councils have approved an amendment that, if approved by the Secretary of Commerce, would implement a generic dealer permit for multiple fisheries including snapper grouper and mackerel, thereby alleviating this potential negative socio-economic impact. Currently, gillnets are a prohibited gear type in the snapper grouper fishery. If gillnets were added as an allowable gear type for blue runner under the Snapper Grouper FMP an ESA consultation would need to be reinitiated for the Snapper Grouper FMP to analyze the potential impacts gillnets could have on ESA-listed species.

Alternative 4 would allow anyone to harvest and sell blue runner, regardless of whether or not they had a valid South Atlantic Unlimited or 225-Pound Snapper Grouper Permit and thus, would not place the additional burden on gillnet fishermen of acquiring a South Atlantic Unlimited or 225-Pound Snapper Grouper Permit. Removal of the permit requirement for blue runner, as proposed under **Alternative 4**, could, however, result in indirect negative biological impacts. The species would still require federal management but there would be no mechanism in place for NMFS to reliably collect effort data (i.e., logbook program) to support future stock assessments. This alternative would also not remove the gillnet prohibition for harvest of species in the Snapper Grouper FMP, which could negatively impact small fishing businesses that depend on the blue runner gillnet landings during part of the year. Additionally, current snapper grouper permit holders may experience indirect economic effects due to lost opportunity. The permit would no longer provide a fisherman with the exclusive right to harvest blue runner over any other fisherman. In this regard, **Alternative 4** would result in more negative effects than **Alternative 2 (Preferred)**.

Alternative 1 (No Action) would have the greatest negative economic effects should the requirement to possess a South Atlantic Snapper Grouper Permit be enforced. On average \$58,139 in annual revenue would be forfeited by fishermen if the existing regulations were enforced, as well as the value of gillnet landings at an average of \$185,839 (see **Tables 4.5.8 and 4.5.9**). **Alternatives 4 and 3** would have the next highest negative economic impacts.

Chapter 3. Description of the Affected Environment

This section describes the affected environment in the proposed project area. The affected environment is divided into 5 major components:

Affected Environment

- **Habitat environment (Section 3.1)**
Examples include coral reefs and sea grass beds
- **Biological and ecological environment (Section 3.2)**
Examples include populations of snapper grouper species, corals, turtles, and marine mammals
- **Economic environment (Section 3.3)**
Examples include economic descriptions of the fisheries
- **Social environment (Section 3.4)**
Examples include descriptions of the affected fishing communities
- **Administrative environment (Section 3.5)**
Examples include the fishery management process and enforcement activities

3.1 Habitat Environment

Many snapper grouper species utilize both open-water and bottom habitats during several life-history stages; larval stages of these species live in the water column and feed on plankton. Most juveniles and adults are bottom-dwellers and associate with hard structures on the continental shelf that have moderate to high relief (e.g., coral reef systems and artificial reef structures, rocky hard-bottom substrates, ledges and caves, sloping soft-bottom areas, and limestone outcroppings). Juvenile stages of some snapper grouper species also utilize inshore seagrass beds, mangrove estuaries, lagoons, oyster reefs, and embayment systems. In many species, various combinations of these habitats may be utilized during daily feeding migrations or seasonal shifts in cross-shelf distribution.

Predominant snapper grouper offshore fishing areas are located in live-bottom and shelf-edge habitats, where water temperatures range from 11° to 27°C (52° to 81°F) due to the proximity of the Gulf Stream, with lower shelf habitat temperatures varying from 11° to 14°C (52° to 57°F). Water depths range from 16 to 27 meters (54 to 90 feet) or greater for live-bottom habitats, 55 to 110 meters (180 to 360 feet) for the shelf-edge habitat, and from 110 to 183 meters (360 to 600 feet) for lower-shelf habitat areas.

Artificial reef structures are also utilized to attract fish and increase fish harvests; however, research on artificial reefs is limited and opinions differ as to whether or not these structures promote an increase of ecological biomass or merely concentrate fishes by attracting them from nearby, natural unvegetated areas of little or no relief.

The habitat types mentioned above are described in more detail in Volume II of the South Atlantic Fishery Management Council's (South Atlantic Council) Fishery Ecosystem Plan (SAFMC 2009b) available at: <http://www.safmc.net/ecosystem/Home/EcosystemHome/tabid/435/Default.aspx>

3.1.1 Essential Fish Habitat

Essential fish habitat (EFH) is defined in the 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)). Areas of EFH in the South Atlantic Bight utilized by federally managed fish and invertebrate species include both estuarine/inshore and marine/offshore areas (**Appendix C**).

EFH utilized by snapper grouper species in the South Atlantic 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 meters (100-foot) contour, such as attached microalgae; 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.

3.1.2 Habitat Areas of Particular Concern

Areas which meet the criteria for EFH-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 Council-designated Artificial Reef Special Management Zones (SMZs). Areas that meet the criteria for designating essential fish habitat-habitat areas of particular concern include habitats required during each life stage (including egg, larval, postlarval, juvenile, and adult stages).

See **Appendix C** for EFH-HAPCs for other South Atlantic Council-managed species.

3.2 Biological and Ecological Environment

The reef environment in the South Atlantic management area affected by actions in this environmental assessment is defined by two components (**Figure 3.2.1**). Each component is described in detail in the following sections.

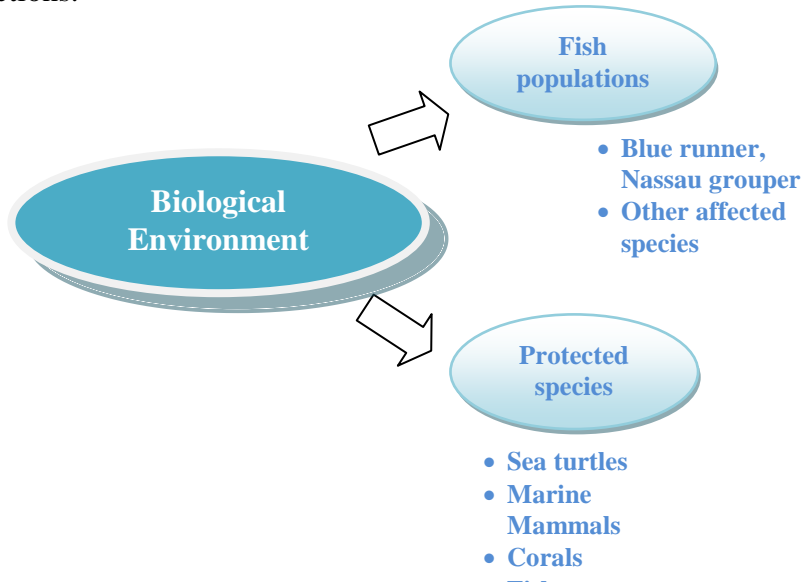


Figure 3.2.1. Two components of the biological environment described in this document.

3.2.1 Fish Populations

The waters off the South Atlantic coast are home to a diverse population of fish. The snapper grouper fishery management unit contains 60 species of fish, many of them neither “snappers” nor “groupers”. These species live in depths from a few feet (typically as juveniles) to hundreds of feet. As far as north/south distribution, the more temperate species tend to live in the upper reaches of the South Atlantic management area (e.g., black sea bass, red porgy) while the tropical variety’s core residence is in the waters off south Florida, Caribbean Islands, and northern South America (e.g., black grouper, mutton snapper).

These are reef-dwelling species that live amongst each other. These species rely on the reef environment for protection and food. There are several reef tracts that follow the southeastern coast. The fact that these fish populations congregate dictates the nature of the fishery (multi-species) and further forms the type of management regulations proposed in this document.

Snapper grouper species commonly taken with blue runner could be affected by the actions proposed in this amendment. In addition to blue runner and Nassau grouper, snapper grouper species most likely to

be affected by the proposed actions includes many species that occupy the same habitat at the same time (see **Section 3.2.5**).

3.2.2 How are fish populations assessed?

Fish stocks in the South Atlantic Council's area of jurisdiction are assessed through the Southeast Data, Assessment and Review (SEDAR) process. SEDAR is a cooperative Fishery Management Council process initiated to improve the quality and reliability of fishery stock assessments in the South Atlantic, Gulf of Mexico, and U.S. Caribbean. The Caribbean, Gulf of Mexico, and South Atlantic Fishery Management Councils manage SEDAR in coordination with National Marine Fisheries Service (NMFS) and the Atlantic and Gulf States Marine Fisheries Commissions. SEDAR seeks improvements in the scientific quality of stock assessments, constituent and stakeholder participation in assessment development, transparency in the assessment process, and a rigorous and independent scientific review of completed stock assessments.

SEDAR is organized around three workshops: (1) the Data Workshop, (2) the Assessment Workshop, and (3) the Review Workshop. The Data Workshop involves the review and compilation of fisheries, monitoring, and life history data. The Assessment Workshop, which may be conducted via a workshop and several webinars, involves the development of assessment models and the use of the information provided by the Data Workshop to estimate population parameters. The Review Workshop involves the independent expert review of input data, assessment methods, and assessment products. The completed assessment, including the reports of all three workshops and all supporting documentation, is then forwarded to the South Atlantic Council's Scientific and Statistical Committee (SSC). The SSC considers whether the assessment represents the best available science and develops fishing level recommendations for Council consideration.

SEDAR workshops are public meetings organized by SEDAR. Workshop participants appointed by the lead Council are drawn from state and federal agencies, non-government organizations, Council members, Council advisors, and the fishing industry with a goal of including a broad range of disciplines and perspectives. All participants are expected to contribute to this scientific process by preparing working papers, contributing data, providing assessment analyses, evaluating and discussing information presented and completing the workshop report.

3.2.3 Nassau Grouper

The Nassau grouper, *Epinephelus striatus*, occurs in the tropical Western Atlantic, ranging from Bermuda, the Bahamas, and Florida to southern Brazil. It has not been found in the Gulf of Mexico, except at the Campeche Bank off the coast of Yucatan, at Tortugas, and off Key West. The Nassau grouper occurs from the shoreline to depths of at least 90 m (295 ft). It is a sedentary, reef-associated species and usually encountered close to caves, although juveniles are common in seagrass beds (Heemstra and Randall 1993). Adults lead solitary lives, except when they aggregate to spawn (Sadovy and Eklund 1999).

Maximum reported size is 122 cm (48.3 in) total length (TL) (male) and 23-27 kg (51.1-29.9 lbs), and maximum reported age is 29 years (Sadovy and Eklund 1999). Natural mortality has been estimated at 0.18 (Ault et al. 1998).

Unlike most other serranids where males are derived from females (protogyny), Sadovy and Colin (1995) indicated that Nassau grouper is primarily a gonochoristic species (separate sexes) with a potential for sex change. Male and female Nassau grouper mature between 40-50 cm (15.8-19.8 in) standard length (SL) and 4-8 years of age. Most individuals attain maturity by 50 cm (19.8 in) SL and 7 years of age.

This species aggregates to spawn at specific times and locations each year (Coleman et al. 2000; Sadovy et al. 1994), reportedly at some of the same sites utilized by the tiger grouper, yellowfin grouper, and black grouper (Sadovy et al. 1994). Concentrated aggregations of from a few dozen to 30,000 Nassau grouper have been reported off the Bahamas, Jamaica, Cayman Islands, Belize, and the Virgin Islands (Heemstra and Randall 1993). Spawning aggregations composed of about 2,000 individuals have been documented north and south of St. Thomas, USVI at depths of 10-40 m, from December through February, around the time of the full moon (Rielinger 1999).

The spawning season is brief and associated with water temperature and the moon phase. At lower latitudes, reproductive activity lasts for about one week per month during December-February. In more northern latitudes (e.g., Bermuda), reproduction occurs between May and August, with a peak in July. Spawning aggregations in the Caribbean occur at depths of 20-40 m on the outer reef shelf edge, in December and January around the time of the full moon in waters 25-26° C (Sadovy and Eklund 1999).

Juveniles feed primarily on crustaceans (Eggleston et al. 1998), while adults forage on fishes, bivalves, lobsters, and gastropods (Sadovy and Eklund 1999).

3.2.3.1 Stock Status of Nassau Grouper

According to the 2011 Status of U.S. Fisheries, Nassau grouper is not undergoing overfishing and its overfished status is undefined. The environmental organization WildEarth Guardians submitted a petition to list Nassau grouper under the Endangered Species Act (ESA) dated August 31, 2010 <http://www.nmfs.noaa.gov/pr/pdfs/petitions/grouper.pdf>. On October 10, 2012, NMFS published a “Notice of 90 Day Petition Finding, Request For Information” in the *Federal Register* (77 FR 61559). This notice informs the public that the Secretary of Commerce has determined the WildEarth Guardians petition presents substantial scientific or commercial information indicating that the petitioned action may be warranted. Therefore, NMFS has commenced a review of the status of Nassau grouper including comprehensive review of the best available scientific and commercial information. NMFS will conclude the review with a finding as to whether, in fact, the listing petition for Nassau grouper is warranted.

3.2.4 Blue Runner

The blue runner, *Caranx crysos*, occurs in the Eastern and Western Atlantic. In the Western Atlantic, it is found from Nova Scotia, Canada to Brazil, including the Gulf of Mexico and Caribbean. Blue runner is a pelagic species that occurs in water as deep as 100 m (328 ft), but generally stays close to the coast. Juveniles often occur in association with floating *Sargassum*. Maximum reported size is 70 cm (27.7 in) TL (male) and 5.1 kg (11.3 lbs) (Smith-Vaniz et al. 1990). Maximum reported age is 11 years (Smith-Vaniz et al. 1990). This species is believed to form spawning aggregations (Thompson and Munro 1974). Thompson and Munro (1974) indicate that blue runner spawn from February to September. Erdman (1976) indicate that off La Parguera, Puerto Rico, spawning occurs mainly during March through May. Prey items include fishes, shrimps, and other invertebrates (Smith-Vaniz et al. 1990). Blue runner are not commonly harvested for human consumption; however, their recreational harvest is substantial (see **Table 3.3.8**). Most recreational harvest is attributable to the private and shore modes, with the shore mode usually yielding higher landings than the private recreational sector (see **Table 3.3.8**). Most landings, however, are from state waters (**Table 4.5.4**).

3.2.4.1 Stock Status of Blue Runner

According to the 2011 Status of U.S. Fisheries, blue runner in the South Atlantic have an unknown overfished and overfishing status.

3.2.5 Other Fish Species Affected

In addition to blue runner and Nassau grouper, snapper grouper species most likely to be affected by the proposed actions include many species that occupy the same habitat at the same time and/or have similar life histories. Volume II of the Fishery Ecosystem Plan for the South Atlantic Region (SAFMC 2009b), describes their life history characteristics in detail.

3.2.6 Protected Species

There are 40 species protected by federal law that may occur in the exclusive economic zone (EEZ) of the South Atlantic Region and are under the purview of NMFS. Thirty-one of these species are marine mammals protected under the Marine Mammal Protection Act (MMPA). Six of these marine mammal species are also listed as endangered under the ESA (i.e., sperm, sei, fin, blue, humpback, and North Atlantic right whales). In addition to those six marine mammals, five species of sea turtles (green, hawksbill, Kemp's ridley, leatherback, and loggerhead); the smalltooth sawfish; five distinct population segments (DPSs) of Atlantic sturgeon; and two *Acropora* coral species (elkhorn [*Acropora palmata*] and staghorn [*A. cervicornis*]) are also protected under the ESA. Portions of designated critical habitat for North Atlantic right whales and *Acropora* corals also occur within the South Atlantic Council's jurisdiction. Section 3.5 in the Comprehensive Annual Catch Limit (ACL) Amendment (SAFMC 2011c), and section 3.2.2 in Regulatory Amendment 13 to the Snapper Grouper FMP (under review), describe the

life history characteristics in detail for these species. Section 3.5 of the Comprehensive ACL Amendment and 3.2.2 of Regulatory Amendment 13 are hereby incorporated by reference and may be found at: <http://www.safmc.net/ecosystem/Home/EcosystemHome/tabid/435/Default.aspx> and http://sero.nmfs.noaa.gov/sf/pdfs/Reg13_FINAL_Dec2012.pdf, respectively. The potential impacts from the continued authorization of the South Atlantic snapper grouper fishery on all ESA-listed species have been considered in previous ESA Section 7 consultations. Summaries of those consultations and their determination are in **Appendix E**. Those consultations indicate that of the species listed above, sea turtles and smalltooth sawfish are the most likely to interact with the snapper grouper fishery.

3.3 Economic Environment

3.3.1 Economic Description of the Commercial Sector

Additional information on the commercial snapper grouper sector is contained in previous amendments [Amendment 13C (SAFMC 2006), Amendment 15A (SAFMC 2008a), Amendment 15B (SAFMC 2008b), Amendment 16 (SAFMC 2009a), Regulatory Amendment 9 (SAFMC 2011b), and Comprehensive ACL Amendment for the South Atlantic Region (SAFMC 2011c)] and is incorporated herein by reference. Presented below is selected information on the commercial sector of the snapper grouper fishery, including blue runner.

The major source of data summarized in this description is the Federal Logbook System (FLS), supplemented by average prices calculated from the Accumulated Landings System (ALS) and price indices taken from the Bureau of Labor Statistics. Real (inflation adjusted) prices are reported in 2011 constant dollars. Landings are expressed in gutted weight to match with the method for collecting ex-vessel price information.

3.3.1.1 Annual Landings, Revenues, and Effort

The commercial reef fish fishing fleet in the South Atlantic is composed of vessels using different gear types and catching a variety of species. From 2007 through 2011, an average of 16,409 trips that landed at least one pound of snapper grouper were taken by 928 permitted vessels. These trips landed 6.8 million pounds, gutted weight (gw), of snapper grouper valued at \$16.9 million in nominal prices (**Table 3.3.1**). Trips landing snapper grouper also landed other species; total revenues generated by these trips were about \$20 million in nominal prices. On average, snapper grouper price per pound was \$2.50, or \$2.60 when adjusted for inflation.

An average of 3,253 trips landing at least one pound of blue runner was taken by 336 vessels (**Table 3.3.2**). These trips landed an average of 115,000 pounds of blue runner with an ex-vessel value of \$111,000 in nominal prices. These trips also landed other species, and total revenues from these trips were \$2.1 million, indicating blue runner was not the main source of revenues for most of these trips. The average price for blue runner was \$0.96 per pound, or \$1.00 when adjusted for inflation.

Table 3.3.1. Selected characteristics for trips landing at least one pound (gutted weight) of snapper grouper, 2007-2011.

Item	2007	2008	2009	2010	2011	Average
Number of trips	17,034	16,748	17,852	15,719	14,691	16,409
Number of boats	942	956	987	916	841	928
Number of days away from port	26,717	26,950	28,631	24,885	23,508	26,138
Pounds of snapper grouper (1,000 gutted)	6,520	6,811	7,101	6,808	6,636	6,775
Revenues from snapper grouper (\$1,000)	\$16,717	\$17,390	\$17,065	\$16,350	\$16,961	\$16,897
Revenues from all species (\$1,000)	\$19,716	\$20,527	\$20,223	\$19,390	\$19,609	\$19,893
Nominal price of snapper grouper	\$2.56	\$2.55	\$2.40	\$2.40	\$2.56	\$2.50
Real price (\$2011) of snapper grouper	\$2.78	\$2.67	\$2.52	\$2.48	\$2.56	\$2.60

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

Table 3.3.2. Selected characteristics for trips landing at least one pound (gutted weight) of blue runner, 2007-2011.

Item	2007	2008	2009	2010	2011	Average
Number of trips	2,653	2,883	3,178	3,712	3,837	3,253
Number of boats	285	322	338	387	348	336
Number of days away from port	2,962	3,080	3,467	4,130	4,379	3,604
Pounds of blue runner (1,000 gutted)	90	99	132	122	130	115
Revenues from blue runner (\$1,000)	\$87	\$89	\$123	\$118	\$138	\$111
Revenues from all species (\$1,000)	\$1,508	\$1,794	\$1,874	\$2,460	\$2,778	\$2,083
Nominal price of blue runner	\$0.97	\$0.90	\$0.93	\$0.96	\$1.06	\$0.96
Real price (\$2011) of blue runner	\$1.05	\$0.94	\$0.98	\$1.00	\$1.06	\$1.00

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

3.3.1.2 Monthly Landings, Revenues, and Effort

Landings of snapper grouper were distributed fairly well throughout the year, although May and June may be considered as peak months (**Table 3.3.3**). Although November and December showed relatively low landings of snapper grouper, the lowest landings of snapper grouper species occurred in April. The landings distribution for blue runner was quite different from that of the entire snapper grouper complex (**Table 3.3.4**). Peak landings occurred in September and October, and the lowest landings occurred in February.

Table 3.3.3. Selected monthly characteristics for trips landing at least one pound (gutted weight) of snapper grouper, 2007-2011 average.

Pounds are in thousands gutted weight and revenues are in thousand dollars.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Trips	1,229	1,167	1,129	1,245	1,818	1,904	1,686	1,654	1,176	1,104	1,173	1,126
Boats	395	377	360	394	512	501	465	459	381	372	401	392
Days	1,928	1,899	1,764	1,847	2,898	2,911	2,709	2,633	1,997	1,880	1,913	1,761
Lbs.	584	549	551	374	791	671	653	650	586	484	450	433
Nom. Rev.	\$1,428	\$1,262	\$1,069	\$1,009	\$1,853	\$1,659	\$1,786	\$1,741	\$1,538	\$1,266	\$1,165	\$1,120
Real Rev.	\$1,478	\$1,313	\$1,119	\$1,060	\$1,932	\$1,725	\$1,849	\$1,813	\$1,601	\$1,321	\$1,219	\$1,175

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

Table 3.3.4. Selected monthly characteristics for trips landing at least one pound (gutted weight) of blue runner, 2007-2011 average.

Pounds are in thousands gutted weight and revenues are in thousand dollars.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Trips	223	177	179	229	322	411	373	355	224	225	263	272
Boats	91	74	79	95	113	121	112	110	73	77	95	94
Days	246	191	206	264	350	451	414	383	260	255	290	292
Lbs.	8	5	8	8	8	12	10	7	14	15	12	10
Nom. Rev.	\$7	\$5	\$7	\$8	\$10	\$12	\$10	\$7	\$12	\$13	\$11	\$9
Real Rev.	\$7.4	\$4.8	\$7.3	\$8.5	\$10.6	\$12.7	\$10.4	\$6.9	\$12.9	\$13.2	\$11.0	\$9.5

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

3.3.1.3 Average Landings, Revenues, and Effort by Gear Type

Hook-and-line was the dominant gear in the harvest of snapper grouper species, including blue runner (Table 3.3.5 and Table 3.3.6) for the period 2007-2011. This gear type accounted for about 74% of total snapper grouper landings and 62% of blue runner landings. Significantly more boats used this gear type to harvest snapper grouper. In addition, significantly more trips were associated with the use of hook-and-line and gillnet. The other gear types were not as important in the harvest of blue runner. The relatively high landings of blue runner by traps was due to some landings in 2008, although virtually no trap landings of blue runner occurred in other years.

Table 3.3.5. Selected monthly characteristics for trips landing at least one pound (gutted weight) of snapper grouper, by gear type, 2007-2011 average.

	Hook & Line	Longline	Traps	Diving	Others
Trips	11,618	366	490	550	3,385
Boats	717	32	49	78	361
Days	20,193	744	741	695	3,766
Pounds	5,029,213	542,548	380,234	145,327	677,943
Nom. Rev.	\$12,909,305	\$1,348,860	\$892,879	\$590,755	\$1,154,956
Real Rev.	\$13,459,721	\$1,397,524	\$933,734	\$611,419	\$1,202,475

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

Table 3.3.6. Selected characteristics for trips landing at least one pound (gutted weight) of blue runner, 2007-2011 average.

	Hook & Line	Longline	Traps	Diving	Others
Trips	2,270	4	2	11	967
Days	2,591	7	4	16	989
Pounds	71,080	112	1,077	161	42,599
Nom. Rev.	\$70,501	\$112	\$416	\$367	\$39,531
Real Rev.	\$72,896	\$115	\$435	\$384	\$41,290

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

3.3.1.4 Permits

A commercial permit is required to harvest or possess commercial quantities of snapper grouper from the EEZ. There are two types of commercial snapper grouper permits—unlimited permits and non-transferable trip-limited permits. An unlimited permit is a transferable permit (subject to restrictions) that allows unlimited harvest of snapper grouper species (subject to trip limits or seasonal restrictions). A non-transferable trip-limited permit limits the owner to 225 pounds of snapper grouper harvest per trip. Both permits are limited access permits. The number of commercial snapper grouper permits for 2005-2010 are provided in **Table 3.3.7**. According to the Southeast Regional Office Website, the Constituency Services Branch (Permits) unofficially listed 121 trip-limited snapper grouper permit holders and 551 unlimited snapper grouper permit holders as of January 22, 2013.

Every year from 2005 through 2010, the number of vessels landing at least one pound of snapper grouper was higher than the number of snapper grouper permits (**Table 3.3.1** and **Table 3.3.7**). This is not totally unexpected. While a permit is assigned to a vessel, permits and vessels need not have a one-to-one correspondence as a permit can be used on multiple vessels at different times during a year or across multiple years. On the other hand, the number of vessels landing blue runner was substantially less than the number of snapper grouper permits, indicating the relatively lesser importance of blue runner as a source of revenue for many vessels in the commercial snapper grouper fishery.

Table 3.3.7. Number of commercial snapper grouper permits.

	Unlimited	Limited	Total
2005	748	198	946
2006	722	183	905
2007	695	165	860
2008	665	151	816
2009	640	144	784
2010	624	139	763
Average	682	163	846

Source: NMFS SERO Permits Data Base

3.3.2 Economic Description of the Recreational Sector

Additional information on the recreational sector of the snapper grouper fishery contained in previous or concurrent amendments is incorporated herein by reference [see Amendment 13C (SAFMC 2006), Amendment 15A (SAFMC 2008a), Amendment 15B (SAFMC 2008b), Amendment 16 (SAFMC 2009a), Amendment 17A (SAFMC 2010a), Amendment 17B (SAFMC 2010b), Regulatory Amendment 9 (SAFMC 2011b), Regulatory Amendment 11 (SAFMC 2011a), Comprehensive ACL Amendment for the South Atlantic Region (SAFMC 2011c), and Amendment 24 (SAFMC 2011d)]. These documents contain up-to-date description of recreational economic value as well as the financial operations of headboats and charter boats and so are included here by specific reference.

The recreational sector is comprised of the private sector and for-hire sector. The private sector includes anglers fishing from shore (all land-based structures) and private/rental boats. The for-hire sector is composed of the charter boat and headboat (also called partyboat) sectors. Charter boats generally carry fewer passengers and charge a fee on an entire vessel basis, whereas headboats carry more passengers and payment is per person.

3.3.2.1 Harvest

The trend of recreational harvest of snapper grouper in the South Atlantic was not uniform across fishing modes (**Table 3.3.8**). Charter boat harvests linearly declined during 2007-2011; headboat harvests also declined over the years but increased in 2009; private/rental mode harvests rose in 2008 before declining in the next three years; and shore mode harvests decreased over the time series. The private/rental mode was the dominant sector in the harvest of snapper grouper.

Harvest trends for blue runner also differed across fishing modes (**Table 3.3.8**). Charter boat harvests almost followed a see-saw pattern, except that they fell in 2010 and 2011; headboat harvests increased through 2010 and then fell in 2011; private/rental mode harvests decreased every year, except in 2011; and shore mode harvests followed a see-saw pattern. The shore mode was the dominant sector in the harvest of blue runner.

Florida dominated all other states in the harvest of snapper grouper, and this is especially true in the harvest of blue runner (**Table 3.3.9**).

Table 3.3.8. Harvest (pounds whole weight) of snapper grouper and blue runner in the South Atlantic, by mode, 2007-2011.

	2007	2008	2009	2010	2011	Average
Snapper Grouper						
Charter	2,409,626	2,178,592	1,883,010	1,610,506	1,061,675	1,828,682
Headboat	2,160,464	1,328,420	1,411,619	1,296,351	1,165,197	1,472,410
Private/Rental	9,988,678	10,271,058	7,550,879	7,369,932	6,379,008	8,311,911
Shore	3,807,023	3,364,388	3,143,910	2,888,938	2,604,346	3,161,721
Blue Runner						
Charter	22,919	19,880	27,655	9,016	4,697	16,833
Headboat	5,490	16,336	21,399	24,744	20,324	17,659
Private/Rental	464,729	339,742	234,791	160,620	178,937	275,764
Shore	408,360	493,098	382,093	189,847	447,978	384,275

Source: The Headboat Survey, NOAA Fisheries, SEFSC, Beaufort Lab and MRFSS database, NOAA Fisheries, NMFS, SERO.

Table 3.3.9. Harvest (pounds whole weight) of snapper grouper and blue runner in the South Atlantic, by state, 2007-2011.

	2007	2008	2009	2010	2011	Average
Snapper Grouper						
Florida	10,734,175	9,803,628	8,709,114	7,206,762	6,794,227	8,649,581
Georgia	519,460	764,817	419,964	699,356	602,970	601,313
N Carolina	4,637,039	4,230,966	3,254,743	3,269,735	2,196,122	3,517,721
S Carolina	2,475,118	2,343,047	1,605,598	1,989,873	1,616,907	2,006,109
Blue Runner						
Florida	880,945	865,581	665,561	383,743	650,939	689,354
Georgia		1,094		58	35	396
N Carolina	294	2,174	53	344	666	706
S Carolina	20,259	207	325	82	296	4,234

Source: The Headboat Survey, NOAA Fisheries, SEFSC, Beaufort Lab and MRFSS database, NOAA Fisheries, NMFS, SERO.

The seasonal distribution in the harvest of snapper grouper and blue runner is shown in **Table 3.3.10**. For snapper grouper, peak harvest occurred in Wave 3 (May-June) whereas the lowest harvest occurred in Wave 1 (January-February). The harvest peak and trough of blue runner occurred, respectively, in Wave 5 (September-October) and Wave 2 (March-April).

Table 3.3.10. Average harvest (pounds whole weight) of snapper grouper and blue runner in the South Atlantic, by wave, 2007-2011.

	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
Snapper Grouper	1,448,869	1,989,847	3,578,782	3,138,458	2,602,489	2,016,281
Blue Runner	63,594	47,840	82,306	186,748	195,820	114,666

Source: MRFSS database, NOAA Fisheries, NMFS, SERO.

3.3.2.2 Effort

Recreational effort can be characterized in terms of the number of trips as follows:

1. Target effort - The number of individual angler trips, regardless of trip duration, where the intercepted angler indicated that the species was targeted as either the first or the second primary target for the trip. The species did not have to be caught.
2. Catch effort - The number of individual angler trips, regardless of trip duration and target intent, where the individual species was caught. The fish caught did not have to be kept.
3. All recreational trips - The total estimated number of recreational trips taken, regardless of target intent or catch success.

Estimates of catch effort are presented in **Tables 3.3.11** through **3.3.13** while those for target effort are shown in **Tables 3.3.14** through **3.3.16**. Apparent in these tables is the substantial difference between target and catch trips, with target trips being generally less than a third of catch trips. While many angler trips recorded harvest of blue runner, much fewer angler trips recorded this species as a target species.

For snapper grouper as a whole, the private/rental mode dominated all other fishing modes in catch trips, followed by the shore mode and charter boats (**Table 3.3.11**). For blue runner, the shore mode was the dominant sector but followed very closely by the private/rental mode.

The dominance of Florida in terms of catch trips for blue runner merely reflects the location where most of this species were caught (**Table 3.3.12**). Other than Florida, North Carolina reported a relatively consistent presence of catch trips for blue runner.

The seasonal distribution of catch trips closely, but not exactly, mimics that of harvests. Catch trips for snapper grouper peaked in Wave 4 (July-August) and troughed in Wave 1 (January-February). For blue runner, catch trips peaked in Wave 4 (July-August) and troughed in Wave 2 (March-April) (**Table 3.3.13**).

Table 3.3.11. Catch trips for snapper grouper and blue runner in the South Atlantic, by mode, 2007-2011.

	2007	2008	2009	2010	2011	Average
Snapper Grouper						
Shore	1,099,638	1,160,179	990,162	717,126	832,083	959,838
Charter	134,589	112,715	118,286	123,111	88,706	115,481
Private	2,748,584	2,617,229	2,079,541	1,785,123	1,671,727	2,180,441
Blue Runner						
Shore	206,588	285,796	200,345	173,339	186,701	210,554
Charter	23,533	12,027	8,418	14,499	15,327	14,761
Private	248,305	225,023	147,445	173,210	161,421	191,081

Source: MRIP database, NOAA Fisheries, NMFS, SERO.

Table 3.3.12. Catch trips for snapper grouper and blue runner in the South Atlantic, by state, 2007-2011.

	2007	2008	2009	2010	2011	Average
Snapper Grouper						
Florida	3,143,441	2,946,266	2,497,913	1,997,370	1,949,529	2,506,904
Georgia	127,847	213,737	105,832	92,688	105,781	129,177
N Carolina	473,836	485,127	379,223	367,856	307,802	402,769
S Carolina	237,686	244,992	205,021	167,447	229,404	216,910
Blue Runner						
Florida	473,500	510,025	355,917	358,096	359,295	411,367
Georgia	0	1,563	0	71	33	333
N Carolina	3,367	8,966	291	2,882	4,121	3,925
S Carolina	1,558	2,293	0	0	0	770

Source: MRIP database, NOAA Fisheries, NMFS, SERO.

Table 3.3.13. Average catch trips for snapper grouper and blue runner in the South Atlantic, by wave, 2007-2011.

	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
Snapper Grouper	352,514	413,283	620,400	766,495	608,033	495,034
Blue Runner	46,949	41,623	66,132	100,848	91,359	69,484

Source: MRIP database, NOAA Fisheries, NMFS, SERO.

Similar to catch trips, most target trips for snapper grouper came from the private/rental mode, followed by the shore and charter modes (**Table 3.3.14**). There were substantially more target trips for blue runner by shore mode anglers than by anglers in other fishing modes. The charter mode, in fact, did not record any target trips for blue runner.

Target trips by state for snapper grouper and blue runner follows the same pattern as catch trips, with Florida being the dominant state (**Table 3.3.15**). While there are reported catch trips for blue runner in states other than Florida, these states reported few or no target trips for this species. Georgia reported no target trips for blue runner; North Carolina reported few trips, only in 2011; and South Carolina reported target trips in 2009 and 2010.

The peak and trough of target trips for snapper grouper coincided with those of catch trips (**Table 3.3.16** and **Table 3.3.13**). The seasonal distribution of target trips for blue runner slightly differs from

that of catch trips. Blue runner target trips peaked in Wave 5 (August-September) and troughed in Wave 1 (January-February).

Table 3.3.14. Target trips for snapper grouper and blue runner in the South Atlantic, by mode, 2007-2011.

	2007	2008	2009	2010	2011	Average
Snapper Grouper						
Shore	259,194	287,248	228,125	214,268	193,240	236,415
Charter	42,164	38,641	30,636	38,114	22,029	34,317
Private	620,512	747,349	623,703	609,126	575,821	635,302
Blue Runner						
Shore	15,776	33,853	13,282	8,377	8,412	15,940
Charter	0	0	0	0	0	0
Private	1,053	0	17,460	1,884	0	4,079

Source: MRIP database, NOAA Fisheries, NMFS, SERO.

Table 3.3.15. Target trips for snapper grouper and blue runner in the South Atlantic, by state, 2007-2011.

	2007	2008	2009	2010	2011	Average
Snapper Grouper						
Florida	669,333	809,451	683,738	623,166	534,471	664,032
Georgia	27,019	40,893	29,665	30,351	40,417	33,669
N Carolina	112,849	88,310	92,499	121,103	88,867	100,726
S Carolina	112,668	134,585	76,561	86,889	127,334	107,607
Blue Runner						
Florida	16,829	33,853	22,605	8,377	8,210	17,975
Georgia	0	0	0	0	0	0
N Carolina	0	0	0	0	202	40
S Carolina	0	0	8,136	1,884	0	2,004

Source: MRIP database, NOAA Fisheries, NMFS, SERO.

Table 3.3.16. Average target trips for snapper grouper and blue runner in the South Atlantic, by wave, 2007-2011.

	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
Snapper Grouper	101,671	143,242	182,124	221,560	116,146	141,291
Blue Runner	1,596	1,914	2,868	5,478	5,851	2,312

Source: MRIP database, NOAA Fisheries, NMFS, SERO.

Similar analysis of recreational effort is not possible for the headboat sector because headboat data are not collected at the angler level. Estimates of effort in the headboat sector are provided in terms of angler days, or the number of standardized 12-hour fishing days that account for the different half-, three-quarter-, and full-day fishing trips by headboats. **Table 3.3.17** displays the annual angler days and **Tables 3.3.18a&b** displays their average monthly distribution. Confidentiality issues required combining Georgia estimates with those of Northeast Florida.

Headboat angler days varied from year to year but generally declined since 2007 (**Table 3.3.17**). Southeast Florida registered the highest number of angler trips, followed by Georgia/Northeast Florida, South Carolina, and North Carolina. Clearly, Florida dominated all other states in terms of headboat angler days.

On average, overall angler days peaked in July and troughed in December (**Tables 3.3.18a&b**). North Carolina and South Carolina had similar peaks and troughs as the overall average. Angler days in Georgia/Northeast Florida peaked in June and troughed in November while those in Southeast Florida peaked in April and troughed in September.

Table 3.3.17. South Atlantic headboat angler days, by state, 2005-2011.

	NC	SC	GA/NEFL	SEFL	TOTAL
2005	40,916	52,036	74,663	82,870	250,485
2006	25,736	56,074	48,908	126,614	257,332
2007	29,002	60,729	53,762	103,388	246,881
2008	16,982	47,287	52,521	71,598	188,388
2009	19,468	40,919	66,447	69,973	196,807
2010	21,071	44,951	53,676	69,986	189,684
2011	18,457	44,645	46,256	77,785	78,546
Average	24,519	49,520	56,605	86,031	201,160

Source: The Headboat Survey, NOAA Fisheries, SEFSC, Beaufort Lab.

Table 3.3.18a. Average monthly distribution of headboat angler days in the South Atlantic, by state, 2005-2010.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
NC	220	194	813	1,647	2,740	4,640	5,118	4,440	2,309	2,273	1,062	75
SC	153	272	1,828	3,791	5,201	9,772	12,245	8,949	3,603	3,031	1,337	153
GA/NEFL	2,668	3,423	5,672	6,380	6,056	8,402	8,229	5,688	3,175	3,173	2,637	2,826
SEFL	7,432	8,517	9,647	9,764	7,962	8,635	9,609	7,006	4,112	4,135	4,829	5,758
Total	10,473	12,405	17,960	21,582	21,958	31,449	35,202	26,082	13,199	12,612	9,864	8,811

Source: The Headboat Survey, NOAA Fisheries, SEFSC, Beaufort Lab.

Table 3.3.18b. Average monthly distribution of headboat angler days in the South Atlantic, by state, 2007-2011.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
NC	50	45	352	1,287	2,445	4,266	4,661	3,807	1,828	1,833	398	23
SC	67	200	1,295	3,463	4,376	10,023	12,617	8,879	3,190	2,597	836	163
GA/NEFL	2,165	2,959	4,936	5,918	5,458	8,497	8,470	5,551	2,797	2,627	2,179	2,976
SEFL	6,105	8,453	8,779	8,330	6,715	8,090	8,910	5,618	3,728	2,655	4,167	6,235
TOTAL	8,387	11,657	15,363	18,997	18,993	30,876	34,658	23,854	11,542	9,713	7,579	9,398

Source: The Headboat Survey, NOAA Fisheries, SEFSC, Beaufort Lab.

3.3.2.3 Permits

For-hire vessels are required to have a for-hire snapper grouper permit to fish for or possess snapper grouper species in the South Atlantic EEZ. The number of vessels with for-hire snapper grouper permits for the period 2005-2010 is provided in **Table 3.3.19**. This sector operates as an open access fishery and not all permitted vessels are necessarily active in the fishery. Some vessel owners may have obtained open access permits as insurance for uncertainties in the fisheries in which they currently operate.

The number of for-hire permits issued for the South Atlantic snapper grouper fishery decreased from 1,805 permits in 2008 to 1,781 permits in 2011. The majority of snapper grouper for-hire permitted vessels were home-ported in Florida; a relatively high proportion of these permitted vessels were also home-ported in North Carolina and South Carolina. Many vessels with South Atlantic for-hire snapper grouper permits were home-ported in states outside of the SAFMC’s area of jurisdiction, particularly in the Gulf of Mexico states of Alabama through Texas. The number of vessels with South Atlantic for-hire snapper grouper permits home-ported in states outside of the South Atlantic Council’s area of jurisdiction account for approximately 10% of the total number of permits.

Table 3.3.19. Number of South Atlantic for-hire snapper-grouper vessel permits, 2008-2011.

Home Port State	2008	2009	2010	2011	Avg.
North Carolina	338	349	331	330	337
South Carolina	139	146	145	132	141
Georgia	26	30	27	26	27
Florida	1,121	1,131	1,109	1,099	1,115
Gulf States (AL-TX)	76	83	86	91	84
Other States	105	113	114	103	109
Total	1,805	1,852	1,812	1,781	1,813

Source: NMFS SERO Permits Data Base.

For-hire permits do not distinguish charter boats from headboats. Based on a 1997 survey, Holland et al. (1999) estimated that a total of 1,080 charter vessels and 96 headboats supplied for-hire services in all South Atlantic fisheries during 1997. By 2010, the estimated number of headboats supplying for-hire services in all South Atlantic fisheries had fallen to 85, indicating a decrease in fleet size of approximately 11% between 1997 and 2010 (K. Brennan, Beaufort Laboratory, Southeast Fisheries Science Center, personal communication, Feb. 2011).

According to the Southeast Regional Office Website, the Constituency Services Branch (Permits) unofficially listed 1,462 current holders of South Atlantic for-hire snapper grouper permits as of January 22, 2013. There are no specific permitting requirements for recreational anglers to harvest snapper grouper. Instead, anglers are required to possess either a state recreational fishing permit that authorizes saltwater fishing in general, or be registered in the federal National Saltwater Angler Registry system, subject to appropriate exemptions.

3.4 Social Environment

A detailed description of the South Atlantic snapper grouper fishery and the communities involved in the fishery is included in the Comprehensive ACL Amendment (SAMFC 2011c) and incorporated herein by reference. Additional descriptions of the snapper grouper fishery are included in Amendment 13C (SAFMC 2006), Amendment 15A (SAFMC 2008a), Amendment 15B (SAFMC 2008b), Amendment 16 (SAFMC 2009a), and Regulatory Amendment 9 (SAFMC 2011a) and are incorporated herein by reference.

This section includes a brief discussion of Nassau grouper and a description of the recreational and commercial portions of the blue runner component of the South Atlantic snapper grouper fishery. The

blue runner description is based on the geographical distribution of commercial landings and the relative importance of the species for communities. In addition, dual-permitted vessels and charter/headboat permits for snapper grouper are described at the state and community level. Top communities based on the number of dual-permitted vessels or charter/headboat permits are presented. A spatial approach enables the consideration of fishing communities and consideration of the importance of fishery resources to those communities, as required by National Standard 8.

Social Importance of Fishing

Socio-cultural values are qualitative in nature making it difficult to measure social valuation of marine resources and fishing activity. The following description includes multiple approaches to examining fishing importance. These spatial approaches focus on the community level (based on the address of dealers or permit holders) and identify importance by “community”, defined according to geo-political boundaries (cities). A single county may thus have several communities identified as reliant on fishing and the boundaries of these communities are not discrete in terms of residence, vessel homeport, and dealer address. For example, a fisherman may reside in one community, homeport his vessel in another, and land his catch in yet another.

One approach to identify communities with the greatest engagement utilizes measures called the regional quotient (rq) to identify commercial reliance. The rq is a way to measure the relative importance of a given species across all communities in the region and represents the proportional distribution of commercial landings of a particular species. This proportional measure does not provide the number of pounds or the value of the catch, data which might be confidential at the community level for many places. The rq is calculated by dividing the total pounds (or value) of a species landed in a given community, by the total pounds (or value) for that species for all communities in the region.

Another approach analyzes relevant fishing permits at the state and community level to examine the areas where actions which may impact permit holders and their crew might be experienced. Communities above the mean are presented because the number of communities with permits is so numerous.

These measures are an attempt to quantify the importance of the components of the included fisheries to communities around the South Atlantic coast and suggest where impacts from management actions are more likely to be experienced.

Nassau Grouper

Nassau grouper is currently managed separately for the South Atlantic and the Gulf of Mexico and harvest is prohibited in both the South Atlantic and Gulf of Mexico. Therefore, no information is available at the community level for Nassau grouper.

Blue Runner

Blue runner is landed commercially in Florida and North Carolina although commercial landings are greatest along the central and lower east coast of Florida and in the Florida Keys. Blue runner is caught recreationally in all states in the South Atlantic; however nearly all of the recreational landings occur in Florida. Blue runner is managed under the Snapper Grouper Fishery Management Plan. An Unlimited Snapper Grouper Permit or 225-Pound Snapper Grouper Permit is required for the commercial harvest of blue runner in the South Atlantic EEZ. In spite of this requirement, blue runner is currently landed with

other permits. Two types of gear are primarily used to harvest blue runner, hook-and-line (vertical lines) and gillnets. A larger number of fishermen harvesting with gillnets land blue runner under a Spanish mackerel permit (approximately 95% of blue runner trips held Spanish mackerel permits, 51% held king mackerel permits, and about 10% held other snapper grouper permits, see **Section 4.5.1**); whereas fishermen harvesting with vertical lines tend to land blue runner under various permits (approximately 32% of vertical line trips held Spanish mackerel permits, 41% held king mackerel, and 48% held other snapper grouper in 2011, see **Section 4.5.1**). These totals do not add up to 100% because multiple permits can be held by one vessel. The current commercial sector allocation for South Atlantic blue runner is 15% (commercial ACL is 188,329 pounds ww). The current recreational ACL for blue runner is 1,101,612 pounds whole weight.

Blue Runner Recreational Fishing

The majority of blue runner recreational fishing occurs in Florida (over 99% of landings in 2011, **Table 3.4.1**). All other states in the South Atlantic are involved to a much small degree in recreational fishing for blue runner (**Table 3.4.1**). Landings for the recreational sector are not available by species at the community level; therefore, it is difficult to identify communities as dependent on recreational fishing for any complexes or individual species. Recreational fishing communities in the South Atlantic are listed in **Table 3.4.2**. These communities were selected by their ranking on a number of criteria including number of charter permits per thousand population and recreational fishing infrastructure identified within each community as listed within the MRIP site survey.

Table 3.4.1. Recreational landings of blue runner by state, 2011.

Pounds Landed (whole weight)				
FL	GA	NC	SC	Total
650,939	35	666	296	651,936

Source: SEFSC ACL Data, February 2013.

Blue Runner Commercial Fishing

Figure 3.4.1 shows the spatial distribution of commercial blue runner landings around the South Atlantic. **Figure 3.4.2** identifies the communities with the most commercial landings of blue runner. The figures represent two ways of examining where blue runner landings are greatest without revealing confidential data. However, the figure and tables are based on the dealer's address which may not correspond to the actual landing site. The pattern of commercial landings is evident in the figures with a large portion of the dealer reported landings located along the central and lower east coast of Florida and the Florida Keys. As explained in the social effects section, hook-and-line landings are primarily based in South Florida; whereas blue runner landings with gillnet are primarily reported in the central east coast of Florida.

Table 3.4.2. South Atlantic recreational fishing communities.

Community	State	Community	State
Jekyll Island	GA	Cape Carteret	NC
Hatteras	NC	Kill Devil Hill	NC
Manns Harbor	NC	Murrells Inlet	SC
Manteo	NC	Little River	SC
Atlantic Beach	NC	Georgetown	SC
Wanchese	NC	Islamorada	FL
Salter Path	NC	Cudjoe Key	FL
Holden Beach	NC	Key West	FL
Ocean Isle	NC	Tavernier	FL
Southport	NC	Little Torch Key	FL
Wrightsville Beach	NC	Ponce Inlet	FL
Marshallberg	NC	Marathon	FL
Carolina Beach	NC	Sugarloaf Key	FL
Oriental	NC	Palm Beach Shores	FL
Community	State	Community	State
Topsail Beach	NC	Big Pine Key	FL
Swansboro	NC	Saint Augustine	FL
Nags Head	NC	Key Largo	FL
Harkers Island	NC	Summerland Key	FL
Calabash	NC	Sebastian	FL
Morehead City	NC	Cape Canaveral	FL

Source: SERO permit office 2008, MRIP site survey 2010.

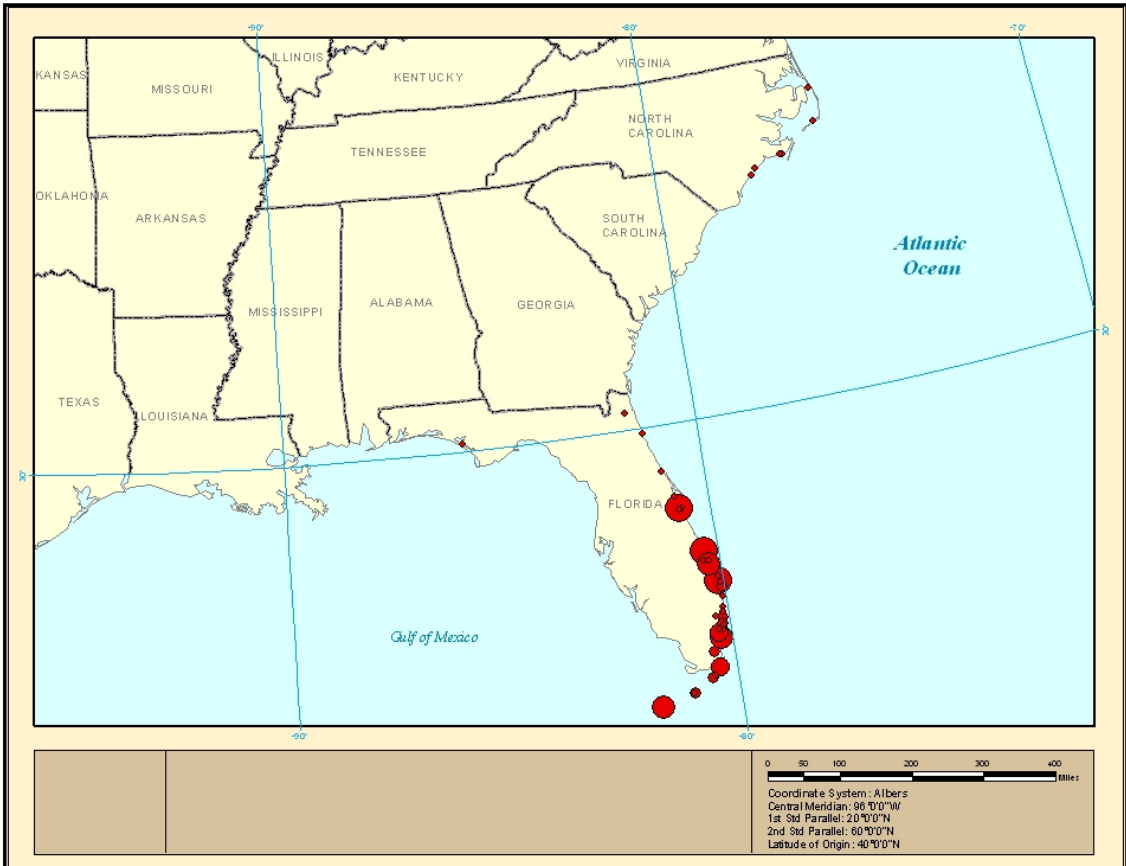


Figure 3.4.1. Distribution of commercial blue runner landings with the size of the point proportional to landings, based on dealer reports.
 Source: ALS dealer reports 2011.

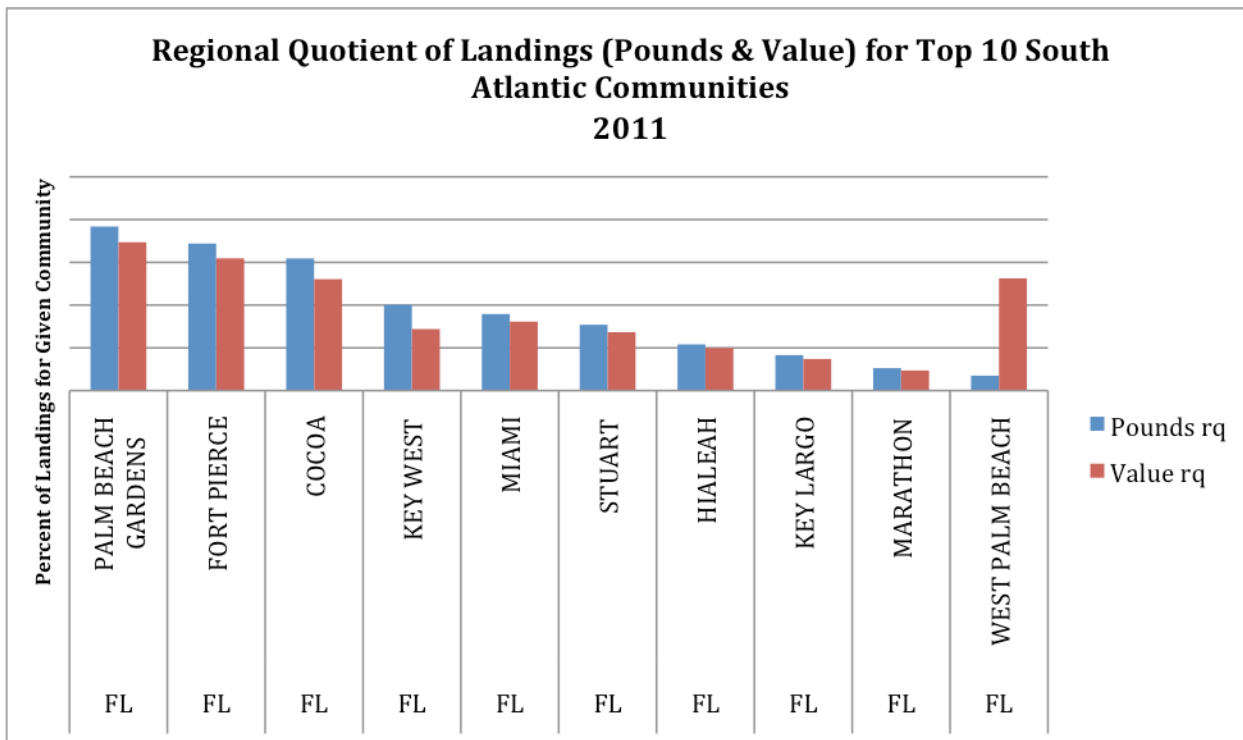


Figure 3.4.2. Proportion (rq) of blue runner commercial landings (pounds and value) for top 10 South Atlantic communities out of total landings and value of blue runner. Values have been omitted because of confidentiality issues. Source: ALS dealer reports 2011.

Importance of Blue Runner Commercial Fishing to Communities

Figure 3.4.1 and **Figure 3.4.2** identified where commercial blue runner landings are most abundant. Commercial landings are greatest along the central and lower east coast of Florida and in the Florida Keys (**Figure 3.4.1**). The top three communities (Palm Beach Gardens, Fort Pierce, and Cocoa, Florida) alone comprised about 52% of the total pounds of commercial landings for blue runner (**Figure 3.4.2**). Top communities in the Florida Keys (Key West, Key Largo, and Marathon) comprised about 17% of the total commercial pounds of blue runner. The remaining top communities of Miami, Stuart, Hialeah, and West Palm Beach made-up about 24% of the commercial blue runner landings (**Figure 3.4.2**).

The following descriptions employ the rq analysis described above to examine the relative importance of commercial blue runner landings in each community. The top five communities included in **Figure 3.4.2** are included in the following description.

Palm Beach Gardens

Palm Beach Gardens, Florida, ranked first in terms of pounds of commercial blue runner landings in 2011 (**Figure 3.4.2**). Of the commercially landed species, blue runner made up about 1.7% of all commercial landings. In the year 2010, those registered in Palm Beach Gardens held 5 King Mackerel Permits, 6 Spanish Mackerel Permits, a confidential number of Snapper Grouper Unlimited Permits, and a confidential number of Snapper Grouper 225-Pound Permits.

Fort Pierce

Fort Pierce, Florida, ranked second in terms of pounds of commercial blue runner landings in 2011 (**Figure 3.4.2**). Of the commercially landed species, blue runner made up about 1.6% of all commercial landings. In the year 2010, those registered in Fort Pierce held 62 King Mackerel Permits, 81 Spanish Mackerel Permits, 7 Snapper Grouper Unlimited Permits, and 5 Snapper Grouper 225-Pound Permits.

Cocoa

Cocoa, Florida, ranked third in terms of pounds of commercial blue runner landings in 2011 (**Figure 3.4.2**). Of the commercially landed species, blue runner made up about 1.1% of all commercial landings. In the year 2010, those registered in Cocoa held a confidential number of Spanish Mackerel Permits and a confidential number of Snapper Grouper Unlimited Permits.

Key West

Key West, Florida, ranked fourth in terms of pounds of commercial blue runner landings in 2011 (**Figure 3.4.2**). Of the commercially landed species, blue runner made up less than 1% of landings. In the year 2010 those registered in Key West held 148 King Mackerel Permits, 147 Spanish Mackerel Permits, 109 Snapper Grouper Unlimited Permits, and 21 Snapper Grouper 225-Pound Permits.

Miami

Miami, Florida, ranked fifth in terms of pounds of commercial blue runner landings in 2011 (**Figure 3.4.2**). Of the commercially landed species, blue runner made up less than 1% of landings. In the year 2010 those registered in Miami held 77 King mackerel Permits, 117 Spanish Mackerel Permits, 50 Snapper Grouper Unlimited Permits, and 8 Snapper Grouper 225-Pound Permits.

Dual-Permitted Vessels

Dual-permitted vessels are vessels associated with both a South Atlantic Charter/Headboat permit for snapper grouper and a South Atlantic Unlimited or 225-Pound permit for snapper grouper. Dual-permitted vessels are located in all states in the South Atlantic as well as in a few other states (New Jersey, New York, and Texas, **Table 3.4.3**). The majority of dual-permitted vessels are located in Florida (approximately 64%); however, North Carolina also has a sizable number of dual-permitted vessels (about 22%, **Table 3.4.3**).

Table 3.4.3. Dual-permitted vessels by state.

State	Number of Dual-Permitted Vessels
FL	95
GA	1
NC	32
SC	16
Other States	4
Total	148

Source: Compiled from SERO FOIA, permit list as of February 7, 2013

Figure 3.4.3 presents the top communities based on the number of dual-permitted vessels by community. There were 72 communities with dual-permitted vessels, but the 15 communities included in **Figure 3.4.3** were those with three or more dual-permitted vessels (communities above the mean were included). Therefore, because so many communities have dual-permitted vessels, many have a low number of dual-permitted vessels and are not included in the figure. Top communities with dual-permitted vessels are located in Florida in Monroe County (in the Florida Keys), Duval, St. Johns, Palm Beach, and Brevard Counties; in South Carolina in Georgetown and Horry Counties; and in North Carolina in New Hanover and Carteret Counties. The top community of Key West, Florida included about 13% of the dual-permitted vessels (19 vessels). The next top communities of Jacksonville, Florida, and Merritt Island, Florida, each included about 5% of the dual-permitted vessels (7 vessels in each community).

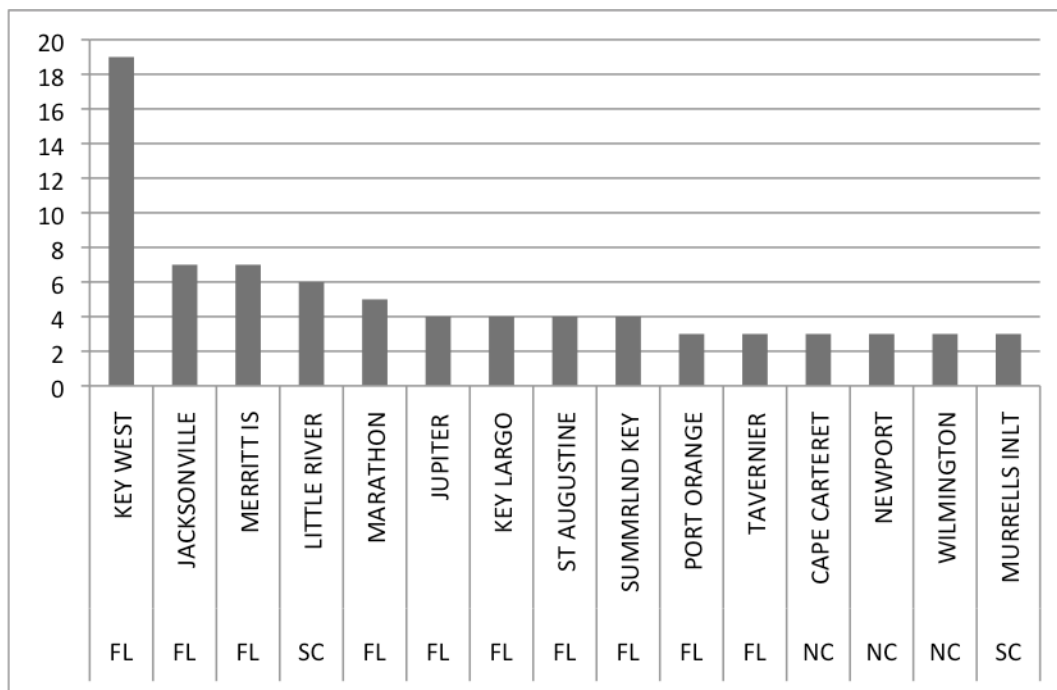


Figure 3.4.3. Top fishing communities with dual-permitted vessels by number of dual-permitted vessels. Source: Compiled from SERO FOIA, permit list as of February 7, 2013.

Charter/Headboat Permits

Captain and crew of vessels with a South Atlantic charter/headboat permit for snapper grouper may not retain bag limit quantities of gag, black grouper, red grouper, scamp, red hind, rock hind, coney, graysby, yellowfin grouper, yellowmouth grouper, yellowedge grouper, snowy grouper, misty grouper, vermilion snapper, sand tilefish, blueline tilefish, and golden tilefish. This amendment may change the retention restrictions for the captains and crew on vessels with a South Atlantic Charter/Headboat permit for snapper grouper.

Charter/Headboat permits for snapper grouper are held by residents of all South Atlantic states as well as by residents of many other states (Alabama, Delaware, Illinois, Indiana, Massachusetts, Maryland, Maine, Michigan, Mississippi, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Tennessee, Texas, Virginia, and West Virginia). The majority of charter/headboat permits for

snapper grouper are held by those in Florida (about 62%); however, a sizable number are also held by North Carolina residents (16.6%, **Table 3.4.4**).

Table 3.4.4. Charter/headboat permits by state.

State	Number of Permits
FL	899
GA	31
NC	239
SC	104
Other States	171
Total	1444

Source: SERO FOIA, permit list as of February 7, 2013

Figure 3.4.4 presents the top communities based on the number of charter/headboat permits for snapper grouper. There were 409 communities with charter/headboat permits for snapper grouper, but the 33 communities included in **Figure 3.4.4** were those with 10 or more permits (communities above the mean were included). Therefore, because so many communities have charter/headboat snapper grouper permits, many have a low number of permits and are not included in the figure. Top communities with charter/headboat permits for snapper grouper are located in Florida, North Carolina, South Carolina, Virginia, and Alabama. The top community of Key West, Florida, included about 8% of charter/headboat permits for snapper grouper (116 permits). The next top community of Marathon, Florida, included about 4% of the permits (57 permits).

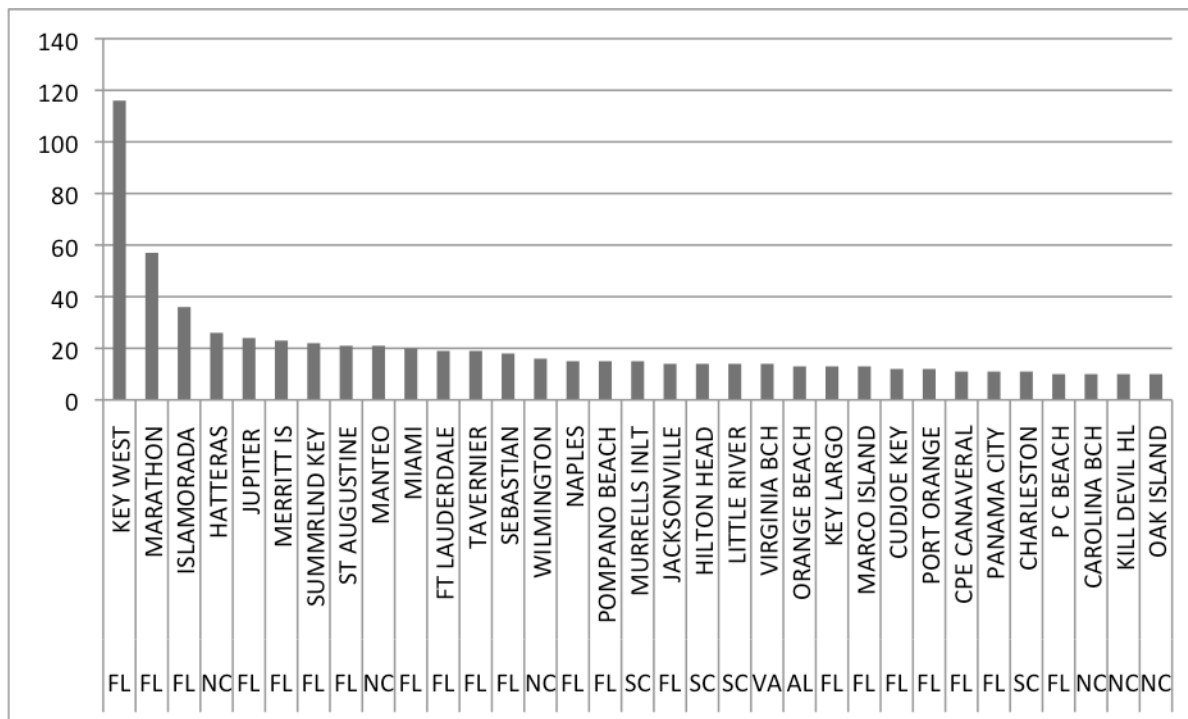


Figure 3.4.4. Top fishing communities with charter/headboat permits for snapper grouper by number of permits. Source: SERO FOIA, permit list as of February 7, 2013

3.4.1 Environmental Justice Considerations

Executive Order 12898 requires federal agencies conduct their programs, policies, and activities in a manner to ensure individuals or populations are not excluded from participation in, or denied the benefits of, or subjected to discrimination because of their race, color, or national origin. In addition, and specifically with respect to subsistence consumption of fish and wildlife, federal agencies are required to collect, maintain, and analyze information on the consumption patterns of populations who principally rely on fish and/or wildlife for subsistence. The main focus of Executive Order 12898 is to consider “the disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories...” This executive order is generally referred to as environmental justice (EJ).

Commercial fishermen, recreational for-hire fishermen, recreational anglers, businesses associated with fishing, and coastal communities would be expected to be impacted by these proposed actions in the South Atlantic. However, information on the race and income status for these individuals is not available. Because these proposed actions could be expected to affect numerous communities in the South Atlantic, census data (available at the county level, only) have been assessed to examine whether any coastal counties have poverty or minority rates that exceed thresholds for raising EJ concerns.

The threshold for comparison used was 1.2 times the state average for the proportion of minorities and population living in poverty (EPA 1999). If the value for the county was greater than or equal to 1.2 times this average, then the county was considered an area of potential EJ concern. Census data for the year 2010 were used.

For Florida, the estimate of the minority (interpreted as non-white, including Hispanic) population was 39.5%, while 13.2% of the total population was estimated to be below the poverty line. These values translate in EJ thresholds of approximately 47.4% and 15.8%, respectively (**Table 3.4.5**).

In Florida, Broward (4.6%) and Miami-Dade (34.5%) counties exceed the minority threshold by the percentage noted. In regard to poverty, no South Atlantic coastal counties in Florida exceeded the threshold. No potential EJ concern is evident for the remaining counties which have values less than the poverty and minority thresholds. The same method was applied to the remaining South Atlantic states.

Table 3.4.5. Average proportion of minorities and population living in poverty by state, and the corresponding threshold used to consider an area of potential EJ concern.

State	Minorities		Poverty	
	% Population	EJ Threshold	% Population	EJ Threshold
FL	39.5	47.4	13.2	15.8
GA	41.7	50	15	18
NC	32.6	39.1	15.1	18.1
SC	34.9	41.9	15.8	19

Source: U.S. Census Bureau 2010

In North Carolina, the counties of Chowan (0.1%), Tyrrell (4.2%), Pasquotank (4.3%), Washington (15.6%), and Bertie (25.5%) exceed the minority threshold for potential EJ concern. The North Carolina counties of Chowan (0.5%), Perquimans (0.5%), Tyrrell (1.8%), Bertie (4.4%), and Washington (7.7%) exceed the poverty threshold. Chowan, Tyrrell, and Washington counties exceed both the minority and poverty thresholds and are the North Carolina communities identified as most likely to be vulnerable to EJ concerns.

In South Carolina, the counties of Colleton (2.5%) and Jasper (19.9%) exceed the minority threshold by the percentage noted. The South Carolina counties of Georgetown (0.3%), Jasper (0.9%), and Colleton (2.4%) exceed the poverty threshold. Colleton and Jasper counties exceed both the minority and poverty thresholds and are the South Carolina communities identified as most likely to be vulnerable to EJ concerns.

In Georgia, Liberty was the only coastal county to exceed the minority threshold (by 3.2%). None of Georgia’s coastal counties exceeded the poverty threshold for potential EJ concern.

While some communities expected to be affected by this proposed amendment may 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.

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 provide 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. Public input from individuals who participate in the fishery has been considered and incorporated into management decisions throughout development of the amendment.

Chapter 4. Impacts on the Affected Environment and Comparison of Alternatives

4.1 Action 1. Extend the South Atlantic Council's area of jurisdiction for management of Nassau grouper to include the Gulf of Mexico

Alternative 1 (No Action). Nassau grouper harvest is prohibited in the South Atlantic and Gulf of Mexico. The South Atlantic Council's area of jurisdiction for management of Nassau grouper is limited to federal waters of the South Atlantic.

Alternative 2 (Preferred). The South Atlantic Council would extend its jurisdictional authority for management of Nassau grouper to include federal waters of the Gulf of Mexico. Harvest of Nassau grouper in the Gulf of Mexico exclusive economic zone (EEZ) and the South Atlantic EEZ would continue to be prohibited.

4.1.1 Biological Effects

In a letter dated April 22, 2010, the Gulf of Mexico Fishery Management Council (Gulf of Mexico Council) requested that the South Atlantic Fishery Management Council (South Atlantic Council) consider managing certain reef fish species, including Nassau grouper, throughout their range. The Gulf of Mexico Council indicated that the geographical distribution of Nassau grouper was on the fringe of its jurisdiction. Based on genetic studies using mtDNA and microsatellite data, there is no evidence of distinct subpopulations of Nassau grouper sampled from a number of sites in Florida, Cuba, Belize and the Bahamas (Stevenson et al. 1998). Therefore, the stock is not managed as two separate Gulf of Mexico and South Atlantic populations, and the South Atlantic Council expressed their willingness to take over management of Nassau grouper throughout their range but has not yet taken action to extend its management authority into Gulf of Mexico federal waters. The Gulf of Mexico Council took action to remove Nassau grouper from its Reef Fish FMP through its Generic Annual Catch Limit (ACL) Amendment (GMFMC 2011). The National Marine Fisheries Service (NMFS), under the authority granted by the Secretary of Commerce, designated the South Atlantic Council as the responsible Council to manage Nassau grouper in the Gulf of Mexico under the Snapper Grouper FMP (76 FR 78245, December 16, 2011). The notice of agency action states that any action to remove the current prohibitions for Nassau grouper in the Gulf of Mexico would have a delayed effective date until the South Atlantic Council action to extend the harvest prohibition into the Gulf of Mexico is implemented. Therefore, action is needed by the South Atlantic Council to extend management of Nassau grouper into the Gulf of Mexico.

Alternative 1 (No Action) would not allow for the South Atlantic Council to manage Nassau grouper as required. However, there is no sunset date associated with the delayed effectiveness outlined in the notice of agency action. Therefore, under **Alternative 1 (No Action)** the current harvest prohibition in the Gulf of Mexico would remain. If the South Atlantic Council were to choose **Alternative 1 (No Action)**, and the harvest moratorium on Nassau grouper were to be lifted, future adjustments to commercial and recreational harvest levels for Nassau grouper could not be made in the Gulf of Mexico.

Alternative 2 (Preferred) would be necessary to allow for the South Atlantic Council to manage Nassau grouper in Gulf of Mexico federal waters. Nassau grouper has been under a harvest moratorium since 1992 (SAFMC 1991) due to concerns of overexploitation. The current ACL for Nassau grouper in both the South Atlantic and Gulf of Mexico is zero. **Alternative 2 (Preferred)** is an administrative action and no changes to the biological environment would be expected as the alternative would simply allow for the South Atlantic Council to continue the harvest prohibition for Nassau grouper in the Gulf of Mexico under the Snapper Grouper FMP, and would give the South Atlantic Council authority to allow some level of harvest in the Gulf of Mexico in the future if needed.

Furthermore, NMFS recently announced its intent to conduct a review to determine whether Nassau grouper should be listed under the Endangered Species Act (ESA) as threatened or endangered (77 FR 61559, October 10, 2012). NMFS concluded that “there is substantial information indicating that the petitioned action may be warranted, based on the threats of overutilization for commercial, recreational, scientific or education purposes, and inadequacy of existing regulatory mechanisms.” Thus, it is of critical biological importance that the moratorium on commercial and recreational harvest of Nassau grouper be continued throughout the species’ range in the southeast U.S. The review is anticipated to be completed in 2013.

Extending the South Atlantic Council’s jurisdictional management of Nassau grouper to include Gulf of Mexico waters would not modify the way in which the snapper grouper fishery in the southeast is prosecuted; nor would this action increase fishing or change fishing methods for species targeted within the Snapper Grouper FMP. Therefore, no adverse effects to the protected species most likely to interact with snapper grouper hook-and-line gear (e.g., sea turtles and smalltooth sawfish) are likely to result under either alternative considered as part of this action. Additionally, no negative effects on essential fish habitats (EFH), habitat areas of particular concern (HAPCs), or coral HAPCs are expected as a result of this action.

4.1.2 Economic Effects

The current ACL for Nassau grouper in both the South Atlantic and Gulf of Mexico is zero. If the South Atlantic Council’s jurisdiction for Nassau grouper extends to Gulf of Mexico, it is expected that there will be no additional economic effects as Nassau grouper are not currently targeted, nor can they be harvested in either the South Atlantic or Gulf of Mexico.

4.1.3 Social Effects

Because of the moratorium on harvest of Nassau grouper in both the Gulf of Mexico and South Atlantic regions, there is no difference in expected impacts on fishermen or fishing communities when considering separate management (**Alternative 1 (No Action)**) or management by the South Atlantic Council (**Preferred Alternative 2**).

Currently Nassau grouper is not included in the Gulf Reef Fish FMP; however, the notice of agency action indicates that harvest of Nassau grouper remains prohibited, and any action to change this would not be effective until the South Atlantic Council gained control of management of the species. Because Nassau grouper is currently under review for listing under the ESA, management of the species in federal waters would contribute to federal protection of a potentially threatened or endangered fish.

4.1.4 Administrative Effects

If the South Atlantic Council's jurisdiction for management of Nassau grouper extends to the Gulf of Mexico, it is expected that there would be no short-term administrative effects as Nassau grouper are not currently targeted, nor can they be harvested in either the South Atlantic or Gulf of Mexico. In terms of enforcement effort related to Nassau grouper management, **Alternative 2 (Preferred)** would neither be beneficial nor adverse. **Alternative 2 (Preferred)** would simply require the same enforcement of the prohibition on harvest of Nassau grouper in the Gulf of Mexico to continue.

4.2 Action 2. Modify the crew size restriction for dual-permitted snapper grouper vessels

Alternative 1 (No Action). The current limit on the number of crew members on any dual-permitted vessel (a vessel with both a South Atlantic Charter/Headboat Permit for Snapper Grouper and a South Atlantic Unlimited or 225-Pound Permit for Snapper Grouper) is three.

Alternative 2. Eliminate the limit of three crew members for dual-permitted vessels

Alternative 3 (Preferred). Increase the limit to four crew members for dual-permitted vessels.

4.2.1 Biological Effects

Maintaining the current crew size limit (**Alternative 1 (No Action)**), would result in positive biological impacts as it would continue to prevent dual-permitted vessels from engaging in charter/headboat trips while landing fish in excess of the bag limits. **Alternative 2** would address the safety at sea issues associated with only having three crew members while commercial diving, but it may also increase the risk that dual-permitted vessels would engage in for-hire fishing while landing commercial quantities of fish, which is prohibited. Historically, one possible reason for limiting the crew

size on a dual-permitted vessel when fishing commercially may have been to prevent double-dipping, where a vessel might take out a number of passengers under the pretense of making a charter trip, but subsequently sell the catch. Therefore, **Alternative 2** would be the most likely of all the alternatives considered to result in negative biological impacts to snapper grouper species in the form of increased harvest by an unrestrained number of crew members on commercial trips. However, as ACLs are in place for snapper grouper species, the biological effects of **Alternatives 2 and 3 (Preferred)** are likely to be neutral. **Alternatives 2 and 3 (Preferred)** could both increase the efficiency by which fish are harvested, which may decrease the amount of time it may take for a vessel to reach species-specific trip limits.

Unlike **Alternative 2**, **Alternative 3 (Preferred)** would maintain a limit on the number of crew members onboard dual-permitted vessels but would allow the maximum number to increase by one. It is unlikely that allowing four crew members instead of three would significantly increase the probability that vessels would engage in for-hire trips while landing fish in excess of the bag limits.

Alternative 1 (No Action) and **Alternative 3 (Preferred)** would not modify the way in which the snapper grouper fishery in the southeast is prosecuted; nor would this action significantly increase fishing or change fishing methods for species targeted within the Snapper Grouper FMP. Therefore, no adverse effects to the protected species most likely to interact with snapper grouper hook-and-line gear (e.g., sea turtles and smalltooth sawfish) are likely to result under either alternative. Additionally, no negative effects on EFH, HAPCs, or coral HAPCs are expected as a result of these alternatives. **Alternative 2** would allow an unlimited number of crew members onboard for-hire vessels. Theoretically, the potential for an increase in fishing effort per vessel would exist under **Alternative 2**, and thus could increase the amount of gear in the water at any one time. Under these circumstances, **Alternative 2** would have the fewest biological benefits for sea turtles and smalltooth sawfish relative to the other alternatives. Otherwise, removing the limit on the number of crew members allowed onboard for-hire vessels is not expected to negatively affect any designated EFH, HAPCs, or coral HAPCs.

4.2.2 Economic Effects

Alternative 1 (No Action), which would maintain the maximum crew size at three for dual-permitted vessels, is not anticipated to result in economic effects. **Alternative 2** and **Alternative 3 (Preferred)** are not anticipated to affect the harvest or other customary uses of snapper grouper species. Therefore, economic effects to the overall economy are not anticipated from the implementation of either alternative. **Alternatives 2 and 3 (Preferred)** could have economic effects on individual trip costs, however. Bringing on a fourth crew member (**Alternatives 2 and 3 (Preferred)**) or more (**Alternative 2**) would likely increase trip costs as a result of additional compensation for the additional crew member(s). Potential trip profitability would be weighed against safety concerns related to having additional crew members onboard in determining the value of additional crew. By allowing more than four crew members onboard, **Alternative 2** has the potential for greater economic effects on trip costs than **Alternative 3 (Preferred)**. While economic effects to the overall economy are not expected from **Alternative 2** or **Preferred Alternative 3**, a precautionary approach would suggest that, to preempt future changes in effort and fishing behavior, increasing the crew size to four (**Preferred Alternative 3**) may be preferable to eliminating the crew size requirement (**Alternative 2**).

4.2.3 Social Effects

These alternatives would have direct and indirect impacts on 148 vessels that hold both a federal commercial snapper grouper permit (Unlimited or 225-Pound) and a federal charter snapper grouper permit (**Table 3.4.3**). Of these, 50 vessels are from the Florida East Coast; 43 from the Florida Keys; 1 from Georgia; 16 from South Carolina; and 32 from North Carolina. Specifically, dual-permitted vessels that take commercial dive trips would be expected to experience the most significant and apparent effects.

Alternative 1 (No Action) would be expected to result in the most significant negative effects on fishermen working on dual-permitted vessels among the three alternatives in this action. The current crew size limit may prohibit fishermen from maximizing efficiency on each trip and taking advantage of both the commercial and charter permits associated with the vessel. Additionally, the current crew size limit of three per vessel may hinder safe diving practices by not providing diving partners for each potential commercial diver. **Alternatives 2 and 3 (Preferred)** would be expected to decrease the negative impacts of the current regulations and increase the potential benefits from safe and profitable commercial dive trips on dual-permitted vessels.

4.2.4 Administrative Effects

In the Gulf of Mexico, Amendment 18A to the Reef Fish FMP (GMFMC 2006) modified the crew size rule to add the Coast Guard certificate of inspection (COI) provision that allowed vessels with a COI to carry the minimum crew size specified by the COI if it was greater than three. Based on the Coast Guard Diving Policies and Procedures Manual (USCG 2009), “A minimum of four personnel consisting of a diving supervisor, diver, diver tender and a standby diver are required to conduct SCUBA operations.” While this is not a regulation applicable to commercial spearfishing vessels, it provides guidance to increase the safety of the diving personnel. This action was intended to resolve a conflict between the South Atlantic Council’s maximum crew size rule and the Coast Guard’s minimum crew size requirements for vessels with a COI, which was at least four. In addition, Amendment 34 to the Reef Fish FMP (GMFMC 2012) increased the crew size limit on dual-permitted vessels operating in the Gulf of Mexico to four, with the final rule published on October 19, 2012, (77 FR 64237). Therefore, if the South Atlantic Council chooses to allow four crew members onboard dual-permitted vessels, those regulations would become consistent with those implemented previously by the Gulf of Mexico Council, which would benefit the fishermen and the administrative environment by simplifying enforcement of the crew member size limit rule, especially in the vicinity of the South Atlantic Council’s jurisdictional boundaries off southern Florida.

Additionally, the Occupational Safety and Health Administration (OSHA) regulations for SCUBA diving operations (29 CFR 1910.424 (c)) require that: 1) “a standby diver is available while the SCUBA diver is in the water” and 2) “the SCUBA diver must be either line-tended or accompanied by another diver with continuous visual contact.” The OSHA regulations aim to establish safe operating procedures for conducting commercial SCUBA diving; however, the three-person crew limit for dual-permitted vessels impairs the crew’s ability to comply with OSHA and decreases safety at sea. Based on the OSHA regulations, if two divers are underwater spearfishing, the third crew member at the surface would need to handle the vessel and be the standby diver. If it is necessary to have two crew members at the surface,

only one diver could be underwater and would need to be line-tended. Spearfishing while being line-tended could cause additional safety issues. Compliance with OSHA regulations reduces the risk of being required to address OSHA violations in the future, which is a positive impact on the administrative environment.

Overall, the administrative effects of any of the alternatives under consideration for this action would be negligible. Allowing an unlimited number of crew members to work onboard dual-permitted vessels may increase the risk that those vessels may engage in for-hire trips while landing fish in excess of the bag limits, causing additional complications for enforcement. Increasing the crew size limit by one would not result in any increase to the burden on law enforcement officers since the three-person crew size limit is already being enforced. **Alternative 3 (Preferred)** would increase safety at sea and allow dual-permitted vessels to operate within the prescribed OSHA commercial diving regulations and follow the U.S. Coast Guard Diving Operation Guidelines (2009) while engaged in spearfishing. The only administrative burden that may result from either **Alternative 2 or 3 (Preferred)** is preparation of outreach materials to notify fishery participants of the change in the crew member limit for dual-permitted vessels.

4.3 Action 3. Modify bag limit restriction on snapper grouper species for captains and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper

Alternative 1 (No Action). Captain and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper may not retain bag limit quantities of the following species in the snapper grouper fishery management unit (FMU): gag, black grouper; red grouper; scamp; red hind; rock hind; coney; graysby; yellowfin grouper; yellowmouth grouper; yellowedge grouper; snowy grouper; misty grouper; vermilion snapper; sand tilefish; blueline tilefish; and golden tilefish.

Alternative 2 (Preferred). Remove the snapper grouper species retention restrictions for captain and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper.

Alternative 3. Establish a bag limit of zero for captain and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper for *all* species included in the snapper grouper FMU.

4.3.1 Biological Effects

The final rule for Amendment 16 to the Snapper Grouper FMP (SAFMC 2009a) prohibited the captain and crew from retaining gag, black grouper, red grouper, scamp, red hind, rock hind, coney, graysby, yellowfin grouper, yellowmouth grouper, yellowedge grouper, snowy grouper, misty grouper, vermilion snapper, sand tilefish, blueline tilefish, and golden tilefish to help end overfishing of gag and vermilion snapper. The analysis contained within Amendment 16 stated that “excluding the captain and crew from possessing the bag limit would provide a slight reduction in harvest.” **Alternative 1 (No Action)** would continue the biological benefits associated with retention restrictions of snapper grouper species for crew

members of for-hire vessels, but this alternative would not establish consistency in bag limit retention provisions for for-hire crew members across the entire snapper grouper FMU. Under **Alternative 1 (No Action)**, current confusion about which species can be retained by crew members would persist. Therefore, some species that are thought to be allowed to be retained, but are actually prohibited, may be harvested and kept illegally; while species that are allowed to be retained by crew members may unnecessarily be discarded if they are thought to be prohibited. This situation could result in small negative biological impacts for some species. The extent of biological benefits, however, would be somewhat related to the level of discard mortality for each particular species and the depth at which it was caught.

Alternative 2 (Preferred) proposes to remove the current restriction on retaining bag limit quantities of gag, black grouper, red grouper, scamp, red hind, rock hind, coney, graysby, yellowfin grouper, yellowmouth grouper, yellowedge grouper, snowy grouper, misty grouper, vermilion snapper, sand tilefish, blueline tilefish, and golden tilefish. **Alternatives 2 (Preferred)** and **3** would both result in regulatory consistency for crew member retention provisions for all snapper grouper species in the South Atlantic. However, **Alternative 2 (Preferred)** could result in small negative biological impacts (**Tables 4.3.1** and **4.3.2**). In addition, bycatch of species with low recreational ACLs could increase as the ACLs would be met faster possibly resulting in small negative biological impacts for those species. Marine Recreational Information Program (MRIP) samples sizes for species such as gag, black grouper, and golden tilefish for both sectors are very low, which results in imprecise estimates of catch (**Table 4.3.1**). These species with small sample size, have a large influence on the estimates of average increases or decreases in harvest under **Alternatives 2 (Preferred)** and **3**. In the headboat sector, no harvest of golden tilefish is recorded during the years of 2004 and 2011 because headboats do not typically target golden tilefish. Therefore, projections of increased golden tilefish harvest based on an allowance for captain and crew retention are highly unreliable. Furthermore, the projection analysis accounted for individual and aggregate bag limits for managed stocks. Impacts were only predicted if trip level harvest hit a bag limit. If a trip hit a bag limit, the analysis assumed 2 additional anglers (1 captain, 1 crew) on charter trips reporting to MRFSS and 3 additional anglers (1 captain, 2 crew) on headboat trips reporting to the SEFSC headboat survey. With consideration of these factors, **Table 4.3.2** presents the estimated increased harvest of the most commonly landed snapper grouper species under **Alternative 2 (Preferred)** with the most recent MRIP data available. Overall, the average increase in harvest of the most commonly landed snapper grouper species would be negligible at 0.02% for the headboat sector and 0.35% for the charterboat sector. These slight increases are unlikely to result in substantial negative biological impacts on snapper grouper species.

Table 4.3.1 Percent increase in headboat and charterboat harvest for most commonly landed snapper grouper species under **Preferred Alternative 2** using average landings from 2009-2011.

Species	Headboat	Charterboat
Gag*	0.14%	0.00%
Black Grouper*	0.00%	24.44%
Golden Tilefish*	0.00%	16.67%
Shallow water Grouper	0.32%	2.17%
Vermilion snapper	0.04%	0.98%
Black Sea Bass	0.00%	0.00%
Snappers	0.00%	0.00%
Greater Amberjack	0.00%	0.00%
Red Porgy	0.00%	0.00%

*MRIP sample sizes for gag, black grouper, and golden tilefish in the charterboat sector are extremely small; therefore, the percentage of increase for these species in the charterboat sector is heavily influenced by the landings data of very few intercepted fishermen. Headboats do not typically target golden tilefish; therefore, no landings golden tilefish are recorded for the headboat sector from 2009-2011.

Table 4.3.2 Percent increase in headboat and charterboat harvest for most commonly landed snapper grouper species under **Preferred Alternative 2** using average landings from 2009-2011.

	Headboat	Charterboat
Harvest increase	0.02%	0.35%

Conversely, **Alternative 3** would benefit the biological environment by prohibiting crew members of for-hire vessels from retaining *all* snapper grouper species. However, the magnitude of snapper grouper species retained by captain and crew of for-hire vessels is very small compared to the amount retained by other recreational anglers (**Tables 4.3.3** and **4.3.4**). Overall, under **Alternative 3**, harvest of the most commonly landed snapper grouper species would decrease by 0.86% for the headboat sector and 4.73% for the charterboat sector. The percentage decrease in harvest is slightly greater than the percentage increase in harvest under **Alternative 2 (Preferred)**; therefore, **Alternative 3** could result in somewhat greater biological benefits, than the negative biological impacts that could be realized under **Alternative 2 (Preferred)**. However, the percentage decrease in harvest is quite small and is not expected to be a significant source of harvest protection. Substantial harvest controls have been promulgated since the implementation of Amendment 16 (SAFMC 2009a). ACLs and accountability measures (AMs) have been implemented for all snapper grouper species included in the Snapper Grouper FMP. If a recreational ACL is met or projected to be met, AMs are triggered to ensure overfishing does not occur for each species. Therefore, the biological effects of **Alternatives 1 (No Action)-3** may be neutral. **Alternatives 1 (No Action)-3** may simply affect the rate at which an ACL is met and an AM is enacted.

Table 4.3.3 Percent decrease in headboat and charterboat harvest for most commonly landed snapper grouper species under **Alternative 3** using average landings from 2009-2011.

Species	Headboat	Charterboat
Gag*	0.00%	0.00%
Black Grouper*	0.00%	0.00%
Golden Tilefish*	0.00%	0.00%
Shallow water Grouper	0.00%	0.00%
Vermilion snapper	0.00%	0.00%
Black Sea Bass	2.01%	5.41%
Snappers	0.32%	5.68%
Greater Amberjack	0.89%	11.41%
Red Pogy	0.00%	0.00%

*MRIP sample sizes for gag, black grouper, and golden tilefish in the charterboat sector are extremely small; therefore, the percentage of increase for these species in the charterboat sector is heavily influenced by the landings data of very few intercepted fishermen. Recreational fishermen do not typically target golden tilefish on headboat trips; therefore, no landings golden tilefish are recorded for the headboat sector from 2009-2011.

Table 4.3.4 Percent decrease in headboat and charterboat harvest for most commonly landed snapper grouper species under **Alternative 3** using average landings from 2009-2011.

	Headboat	Charterboat
Harvest decrease	-0.86%	-4.73%

The relative biological impact of each alternative on the protected species most likely to interact with snapper grouper hook-and-line gear (e.g., sea turtles and smalltooth sawfish) is expected to be slight. **Alternative 3** is likely to have the greatest biological benefit relative to other alternatives because it would not allow the captain and crew to retain any snapper grouper species that have a bag limit. This may potentially reduce fishing effort and decrease the potential for interaction with sea turtles and smalltooth sawfish. Conversely, **Alternative 2 (Preferred)** may lead to increased fishing effort and would likely have the least biological benefit to sea turtles and smalltooth sawfish. The biological benefits of **Alternative 1 (No Action)** would likely be between the other two alternatives. However, the percentages of increased and decreased harvest under **Alternatives 2 (Preferred)** and **3** are very small, and thus are unlikely to result in significant changes in fishing effort or fishing methodology. For these reasons, any adverse impacts to sea turtles or smalltooth sawfish are expected to be negligible, and no negative impacts on designated EFH, HAPCs, or coral HAPCs are expected as a consequence of this action.

4.3.2 Economic Effects

The procedure for calculating the economic effects of the alternatives for the captain and crew bag limit retention involves estimating the expected changes in consumer surplus (CS) to anglers and net operating revenues (NOR) to for-hire vessels. Consumer surplus is the amount of money that an angler

would be willing-to-pay for a fishing trip over and above the cost of the trip. Net operating revenue is total revenue less operating costs, such as fuel, ice, bait, and other supplies. Although this is the same approach used in evaluating the economic effects of regulatory actions on the recreational sector as in previous amendments (see for example, Amendment 17A and Regulatory Amendment 18), certain issues regarding the valuation of the captain and crew bag limit are noted below.

The captain and crew of for-hire vessels provide labor services for each recreational trip, and as such they may not be strictly considered as recreational anglers. These individuals are paid for the trip and so would not generally derive the kind of economic benefits that anglers derive from a fishing experience. Neither may they be considered commercial fishermen, unless they are on a dual-permitted vessel which is taking a commercial fishing trip. If, on a recreational fishing trip, they are allowed to retain bag limits of certain snapper grouper species, the valuation of those retained fish would mainly depend on their ultimate use. Captains and crew can bring the fish home and consume, give to other people, or sell them. Such action would yield some form of economic values that cannot be adequately estimated. Selling recreationally caught fish is noted to be illegal, but if they are able to do so, they generate some income somewhat comparable to that of a commercial fisherman. They could also distribute the fish to their angling customers. In general, it would be illegal to distribute the fish for purposes of circumventing the bag limit rule. However, this is very difficult to enforce, especially if the actual distribution is done after the trip. If the fish were distributed to the angling customers in one way or another, those fish would assume economic values that are somewhat comparable to economic values derived by an angler for keeping the fish, particularly if those fish were caught by the anglers themselves. In this case, consumer surplus values may be assigned to the fish. It is also possible for the captain and crew bag limit to be used for marketing purposes. Anglers could be enticed to take fishing trips if they are potentially allowed to keep fish above the bag limit. Those trips could also be assigned economic values in the form of additional net operating revenues to the vessel. It is also possible that the captain and crew bag limit may be considered as part of compensation to the crew, either as incentive to the crew or as actual part of the crew's (non-monetary) compensation. In this way, the bag limit could be assigned an economic value in a manner, which is comparable to the wage received by the crew.

These issues highlight the varied ways of assigning economic values to the captain and crew bag limit, although none of which may be considered better than the others. Given certain assumptions, it is possible to monetize some of these economic values. With respect to the economic value of the fish themselves, they could be monetized using ex-vessel prices. This valuation would assume some form of sales occurred, or the fish was used as part of compensation to the crew. The bag limit could also be monetized using consumer surplus values. This valuation would assume that the captain and crew distributed their bag limit to their angling customers in one form or another, because as noted earlier the captain and crew of for-hire vessels are not strictly recreational anglers. If no such distribution occurred but the anglers themselves caught the fish, anglers could also have derived some benefits comparable to that derived from catching and releasing the fish. If no such distribution occurred and anglers did not catch the fish, assigning consumer surplus values to the captain and crew bag limit would essentially place an upper bound on the value of the fish because no angler costs were expended to catch the fish. Beyond the value of the fish themselves, additional economic value may be derived from allowing the captain and crew to retain their bag limit. As noted earlier, if for-hire vessels were effective in using the captain and crew bag limit to entice additional angling trips, these trips could be considered to generate additional net operating revenues to for-hire vessels.

Cognizant of the various issues discussed above, an attempt is made here to estimate the CS and NOR effects of the various alternatives for the captain and crew bag limit retention. For the current purpose, the CS value used is \$76.98 (2011 dollars) per harvested fish (Carter and Liese 2012), and the NOR values used are \$157.27 (2011 dollars) per angler trip for charter boats and \$70.25 (2011 dollars) per angler trip for headboats (David Carter, NMFS SEFSC, personal communication, 2009). Carter and Liese (2012) estimated the economic value (willingness-to-pay) of catching and keeping or releasing saltwater sport fish in the southeast. Their estimate was \$62.97 (2003 dollars) for keeping the second red snapper. The NOR values provided by Carter (2009) were, in 2009 dollars, \$63 for headboats and \$128 for charter boats.

This procedure in estimating the economic effects relies on several assumptions, in addition to the ones already pointed out above. The CS used, based on the Carter and Liese (2012) study, pertains to the net benefit an angler derives from the second red snapper kept on a fishing trip. There is a good possibility that, on average, red snapper is valued higher than many other species. In the same vein, red snapper may be valued lower than other snapper grouper species. Using this CS value would then tend to overestimate or underestimate the economic effects of this amendment. In addition, this CS value is assumed to be uniform across all fishing sectors, areas, and harvest levels. This may not necessarily be the case. Headboat anglers may value a species differently, on average, than private and charterboat anglers. The direction and magnitude of such difference are unknown, though the higher cost of fishing to charterboat anglers suggests the CS to headboat anglers would be less than that to charterboat anglers. It is also possible that CS values vary across geographic areas. No adjustments for these possibilities are introduced in the current analysis. It should also be noted that using an average recreational value per fish would not take into account diminishing returns exhibited in most recreational activities when the volume of the activity increases. This could very well lead to overestimation of CS effects. The NOR values used in the current analysis are based on a study of the study of the North Carolina recreational fishery (Dumas et al. 2009). Although North Carolina is a major participant in the recreational harvest of many snapper grouper species, the other states particularly Florida are major participants in the recreational sector of the snapper grouper fishery. It is also possible that NOR values could vary by state, but no adjustments are made here in the absence of relevant information. One other assumption is that the captain and crew bag limit does not affect their monetary or non-monetary compensation.

Relative to **Alternative 1** (no action alternative), **Alternative 2 (Preferred)** would be expected to result in some CS and possibly NOR increases. Based on a bag limit analysis done for this amendment by SERO-LAPP (Farmer, pers. comm., 2013) and considering only the period 2008-2011, **Alternative 2 (Preferred)** would result in additional 51 fish kept on charter trips and 138 additional fish kept on headboat trips. If the captain and crew were assumed to have a value equivalent to the recreational fishermen, then the CS values of these fish would be \$3,926 (2011 dollars) for charter trips and \$10,623 (2011 dollars) for headboat trips. It is not possible to determine the change in trips and NOR arising from these increases in harvest without making much stronger assumptions than those for estimating the CS effects. It may only be noted that each additional angler trip would generate NOR values of \$157.27 (2011 dollars) for charter boats and \$70.25 (2011 dollars) for headboats.

In contrast to **Alternative 2 (Preferred)**, **Alternative 3** would be expected to result in CS and possibly NOR reductions relative to **Alternative 1** (no action alternative). Based on the same information as above, **Alternative 3** would result in reductions of 275 fish for charter boat trips and 4,291 fish for headboat trips. The associated CS values for these reductions would be \$21,170 (2011 dollars) and

\$330,321 (2011 dollars) for charter boat and headboat trips, respectively. As with **Alternative 2 (Preferred)**, it is not possible to determine the reduction in angler trips under **Alternative 3**. It is only noted that angler trip reductions would result in NOR reductions of \$157.27 (2011 dollars) per charter boat angler trip and \$70.25 (2011 dollars) per headboat angler trip.

4.3.3 Social Effects

The existing restrictions on captain and crew bag limit retention under **Alternative 1 (No Action)** would continue to cause confusion among for-hire captain and crew since the restriction applies only to some snapper grouper species and not others. This inconsistency may also hinder effective enforcement. The opportunity to retain catch on for-hire trips (**Alternative 2 (Preferred)**) would be expected to be beneficial to for-hire captain and crew by providing fish for personal consumption. However, for species with low recreational ACLs (such as snowy grouper), allowing captain and crew to retain bag limits, as proposed under **Alternative 2 (Preferred)**, may reduce the amount available to private recreational anglers. Additionally, **Alternative 2 (Preferred)** could result in increased incentive to harvest the maximum bag limit for some species on for-hire trips, which could cause conflict among the for-hire fleet.

Prohibition of bag limit retention for captain and crew for all snapper grouper species (**Alternative 3**) would likely result in some negative impacts for crew who routinely take the bag limit of allowed species for personal consumption. For several species in the snapper grouper FMU that are not overfished or experiencing overfishing, bag limit restrictions for the for-hire crew members would not be expected to result in any benefits for the fishermen and other resource users.

4.3.4 Administrative Effects

In the South Atlantic, the captain and crew on for-hire vessels cannot retain the bag limit for gag, black grouper, red grouper, scamp, red hind, rock hind, coney, graysby, yellowfin grouper, yellowmouth grouper, yellowedge grouper, snowy grouper, misty grouper, vermilion snapper, sand tilefish, blueline tilefish, and golden tilefish, and in the Gulf of Mexico the captain and crew on for-hire vessels can retain the majority of reef fish species. The existing restrictions on captain and crew bag limit retention in the South Atlantic under **Alternative 1 (No Action)** are confusing among for-hire captain and crew, since the restriction applies only to some snapper grouper species and not others. Inconsistent regulations in southern Florida for species that occur on both sides of the jurisdictional boundary as well as within the South Atlantic create a confusing regulatory environment and make enforcement efforts less efficient. Therefore, **Alternative 1 (No Action)** would have the most negative administrative impacts of the alternatives considered.

Alternative 2 (Preferred) would create consistent regulations for retention of snapper grouper species by crew members in the South Atlantic, which would eliminate some confusion, and could help streamline enforcement efforts within the fishery. **Alternative 3** is the most administratively beneficial alternative since it would aid law enforcement and prevent confusion regarding the species that are allowed to be retained and those that are not.

4.4 Action 4. Modify Section I of the Snapper Grouper FMP Framework procedure

Alternative 1 (No Action). Section I of the snapper grouper framework procedure, as modified through Amendment 17B to the Snapper Grouper FMP, is as follows:

I. Snapper Grouper FMP Framework Procedure for Specification of Annual Catch Limits, Annual Catch Targets, Overfishing Limits, Acceptable Biological Catch, and annual adjustments:

Procedure for Specifications:

1. At times determined by the Southeast Data, Assessment, and Review (SEDAR) Steering Committee, and in consultation with the Council and NMFS Southeast Regional Office (SERO), stock assessments or assessment updates will be conducted under the SEDAR process for stocks or stock complexes managed under the Snapper Grouper FMP. Each SEDAR stock assessment or assessment update will: a) assess to the extent possible the current biomass, biomass proxy, or SPR levels for each stock; b) estimate fishing mortality (F) in relation to F_{MSY} (MFMT) and F_{OY} ; c) determine the overfishing limit (OFL); d) estimate other population parameters deemed appropriate; e) summarize statistics on the fishery for each stock or stock complex; f) specify the geographical variations in stock abundance, mortality recruitment, and age of entry into the fishery for each stock or stock complex; and g) develop estimates of B_{MSY} .
2. The Council will consider SEDAR stock assessments or other documentation the Council deems appropriate to provide the biological analysis and data listed above in paragraph 1. Either the SEFSC or the stock assessment branch of a state agency may serve as the lead in conducting the analysis, as determined by the SEDAR Steering Committee. The Scientific and Statistical Committee (SSC) will prepare a written report to the Council specifying an OFL and may recommend a range of ABCs for each stock complex that is in need of catch reductions for attaining or maintaining OY. The OFL is the annual harvest level corresponding to fishing at MFMT (F_{MSY}). The ABC range is intended to provide guidance to the SSC and is the OFL as reduced due to scientific uncertainty in order to reduce the probability that overfishing will occur in a year. To the extent practicable, the probability that overfishing will occur at various levels of ABC and the annual transitional yields (i.e., catch streams) calculated for each level of fishing mortality within the ABC range should be included with the recommended range.

For overfished stocks, the recommended range of ABCs shall be calculated so as to end overfishing and achieve snapper grouper population levels at or above B_{MSY} within the rebuilding periods specified by the Council and approved by NMFS. The SEDAR report or SSC will recommend rebuilding periods based on the provisions of the National Standard Guidelines, including generation times for the affected stocks. Generation times are to be specified by the stock assessment panel based on the biological characteristics of the individual stocks. The report will recommend to the Council a B_{MSY} level and a MSST from B_{MSY} . The report may also recommend more appropriate estimates of F_{MSY} for any stock. The report may also recommend more appropriate levels for the MSY proxy, OY, the overfishing threshold (MFMT), and overfished threshold (MSST). For stock or stock complexes where data are inadequate to compute an OFL and recommended ABC range, the SSC will use other available information as a guide in

providing their best estimate of an OFL corresponding to MFMT and ABC range that should result in not exceeding the MFMT.

3. The SSC will examine SEDAR reports or other new information, the OFL determination, and the recommended range of ABC. In addition, the SSC will examine information provided by the social scientists and economists from the Council staff and from the SERO Fisheries Social Science Branch analyzing social and economic impacts of any specification demanding adjustments of allocations, ACLs, ACTs, AMs, quotas, bag limits, or other fishing restrictions. The SSC will use the ABC control rule to set their ABC recommendation at or below the OFL, taking in account scientific uncertainty. If the SSC sets their ABC recommendations equal to OFL, the SSC will provide its rational why it believes that level of fishing will not exceed MFMT.

4. The Council may conduct a public hearing on the reports and the SSC's ABC recommendation at, or prior, to the time it is considered by the Council for action. Other public hearings may be held also. The Council may request a review of the report by its Snapper Grouper Advisory Panel and optionally by its socioeconomic experts and convene these groups before taking action.

5. The Council, in selecting an ACL, ACT, AM, and a stock restoration time period, if necessary, for each stock or stock complex for which an ABC has been identified, will, in addition to taking into consideration the recommendations and information provided for in paragraphs 1, 2, 3, and 4, utilize the following criteria:

a. Set ACL at or below the ABC specified by the SSC or set a series of annual ACLs at or below the projected ABCs in order to account for management uncertainty. If the Council sets ACL equal to ABC, and ABC has been set equal to OFL, the Council will provide its rationale as to why it by it believes that level of fishing will not exceed MFMT.

b. May subdivide the ACLs into commercial, for-hire, and private recreational sector ACLs that maximize the net benefits of the fishery to the nation. The Sector ACLs will be based on allocations determined by criteria established by the Council and specified by the Council through a plan amendment. If, for an overfished stock, harvest in any year exceeds the ACL or sector ACL, management measure and catch levels for that sector will be adjusted in accordance with the AMs established for that stock.

c. Set ACTs or sector ACTs at or below ACLs and in accordance with the provision of the AM for that stock. The ACT is the management target that accounts for management uncertainty in controlling the actual catch at or below the ACL. If an ACL is exceeded repeatedly, the Council has the option to establish an ACT if one does not already exist for a particular stock and adjust or establish AMs for that stock as well.

6. The Council will provide the SSC specification of OFL; SSC recommendation of ABC; and its recommendations to the NMFS Regional Administrator for ACLs, sector ACLs, ACTs, sector ACTs, AMs, sector AMs, and stock restoration target dates for each stock or stock complex, estimates of B_{MSY} and MSST, estimates of MFMT, and the quotas, bag limits, trip limits, size limits, closed seasons, and gear restrictions necessary to avoid exceeding the ACL or sector ACLS, along with the reports, a regulatory impact review and proper National Environmental

Policy Act (NEPA) documentation, and the proposed regulations within a predetermined time as agreed upon by the Council and Regional Administrator. The Council may also recommend new levels or statements for MSY (or proxy) and OY.

7. The Regional Administrator will review the Council's recommendations and supporting information, and, if he concurs that the recommendations are consistent with the objectives of the FMP, the National Standards, and other applicable law, he shall forward for publication notice of proposed rules to the Assistant Administrator (providing appropriate time for additional public comment). The Regional Administrator will take into consideration all public comment and information received and will forward for publication in the *Federal Register* of a final rule within 30 days of the close of the public comment, or such other time as agreed upon by the Council and Regional Administrator.

8. Appropriate regulatory changes that may be implemented by final rule in the *Federal Register* include:

- a. ACLs or sector ACLs, or a series of annual ACLs or sector ACLs.
- b. ACTs or sector ACTs, or a series of annual ACTs or sector ACTs and establish ACTs for stocks which do not have an ACT.
- c. AMs or sector AMs.
- d. Bag limits, size limits, vessel trip limits, closed seasons or area, gear restrictions, and quotas designed to achieve OY and keep harvest levels from exceeding the ACL or sector ACL.
- e. The time period specified for rebuilding an overfished stock, estimated MSY and MSST for overfished stocks, and MFMT.
- f. New levels or statements of MSY (or proxy) and OY for any stock.
- g. New levels of total allowable catch (TAC).
- h. Adjust fishing seasons/years.

9. The NMFS Regional Administrator is authorized, through notice action, to conduct the following activities.

- a. Close the commercial fishery of a snapper grouper species or species group that has a commercial quota or sub-quota at such time as projected to be necessary to prevent the commercial sector from exceeding its sector ACL or ACT for the remainder of the fishing year or sub-quota season.
- b. Close the recreational fishery of a snapper grouper species or species group at such time as projected to be necessary to prevent recreational sector ACLs or ACTs from being exceeded.
- c. Reopen a commercial or recreational season that had been prematurely closed if needed to assure that a sector ACL or ACT can be reached.

10. If NMFS decides not to publish the proposed rule for the recommended management measures, or to otherwise hold the measures in abeyance, then the Regional Administrator must notify the Council of its intended action and the reasons for NMFS concern along with suggested changes to the proposed management measures that would alleviate the concerns. Such notice shall specify: 1) The applicable law with which the amendment is inconsistent; 2) the nature of

such inconsistencies; and 3) recommendation concerning the action that could be taken by the Council to conform the amendment to the requirements of applicable law.

Alternative 2 (Preferred). Modify Section I of the Snapper Grouper Framework Procedure by adding a new Item #9 (and renumber the existing 9 as 10 and 10 as 11):

9. Adjustments to ABCs, ACLs, and ACTs according to the existing ABC Control Rule(s) and formulas for specifying ACLs and ACTs that have been approved by the Council and that were implemented in a fishery management plan amendment to the FMP. This abbreviated process is authorized as follows:

- a. Following the Scientific and Statistical Committee's (SSC's) review of the stock assessment, the Council will determine if changes are needed to ABC, ACL, and/or ACT and will so advise the RA.
- b. The Council will first hold a public hearing during the Council meeting during which they will review the stock assessment and the SSC's recommendations. In addition, the public will be advised prior to the meeting that the Council is considering potential changes to the ABC, ACL, and/or ACT and the Council will provide the public the opportunity to comment on the potential changes prior to and during the Council meeting.
- c. If the Council then determines that modifications to the ABC, ACL, and/or ACT are necessary and appropriate, they will notify the RA of their recommendations in a letter with the Council's analysis of the relevant biological, economic, and social information necessary to support the Council's action.
- d. The RA will review the Council's recommendations and supporting information. If the RA concurs that the Council's recommendations are consistent with the objectives of the FMP, the Magnuson-Stevens Fishery Conservation and Management Act, and all other applicable law, the RA is authorized to implement the Council's proposed action through publication of appropriate notification in the Federal Register, providing appropriate time for additional public comment as necessary.
- e. If the Council chooses to deviate from the ABC control rule(s) and formulas for specifying ACLs and ACTs that the Council previously approved and that were implemented in a fishery management plan amendment to the FMP, this abbreviated process would not apply, and either the framework procedure would apply with the preparation of a regulatory amendment or a fishery management plan amendment would be prepared. Additionally, the Council may choose to prepare a regulatory amendment or a fishery management plan amendment even if they do not deviate from the previously approved ABC control rule(s) and formulas for specifying ACLs and ACTs.

4.4.1 Biological Effects

This administrative action would have indirect positive biological effects in that adjustments to harvest levels would not be subject to regulatory delays as is currently the case under **Alternative 1 (No**

Action). As such, biological benefits may result due to the ability to implement appropriate levels of harvest quickly in response to the latest scientific information to maintain harvest levels at or below the ACL. When stock assessments indicate large decreases in the ACLs are needed, a quick adjustment to the catch level would likely have positive biological effects. The SEDAR process currently only produces one stock assessment for a species every three to five years. As such, the data utilized in the assessment are at least one year old by the time the assessment results become available and can be used for management purposes. It is, therefore, advantageous to make any modifications to the existing management process, as proposed under **Alternative 2 (Preferred)**, to expedite fishing level adjustments for snapper grouper species. However, the abbreviated process would not be able to be used if the South Atlantic Council were to deviate from the ABC control rule or adopt new formulas for specifying ACLs and ACTs.

This action is administrative in nature and would not significantly alter the way in which the snapper grouper fishery is prosecuted in the South Atlantic Region. Therefore, no impacts on ESA-listed marine species, EFH, HAPCs, or coral HAPCs are expected as a result of updating the Snapper Grouper Framework Procedure.

4.4.2 Economic Effects

Alternative 1 (No Action) could negatively impact the recreational and commercial fishing sectors should new data indicate that a stock had improved but the South Atlantic Council had no means to rapidly increase the ACL, resulting in loss of opportunity, income, and/or recreational angling experiences. However, if an assessment indicated a substantial decrease in the ACL was needed **Alternative 1 (No Action)** would retain a more deliberative process of ensuring the public was well informed regarding the needed changes in catch levels. **Alternative 2 (Preferred)** could result in positive or negative economic effects. When stock assessments indicate ACLs can be increased, quick adjustments for ACLs would allow for positive economic effects without negatively affecting the sustainability of the stock. On the other hand, when stock assessments indicate large decreases in the ACLs are needed, it is likely that negative economic effects would result from moving quickly with a decrease in a catch level. However, depending on the timing of the implementation of the ACLs, the positive or negative economic effect would be short lived as the overall net economic effect to the economy is likely to remain unchanged by this action. Furthermore, the South Atlantic Council would have the discretion to either adjust the ACL more quickly through the process specified in **Alternative 2 (Preferred)**, or take a more deliberate approach by means of a regulatory amendment.

4.4.3 Social Effects

The process by which catch limits can be adjusted based on new information, stock assessment updates, and SSC recommendations contributes directly to benefits for the commercial and for-hire fleets, recreational anglers, businesses associated with fishing, and coastal communities. Catch limits and AMs can potentially have significant impacts on fishermen and communities if harvest of an important species is not allowed or closes early in the season. Although the long-term benefits may balance out these short-term negative impacts, in some situations it can be expected that fishing behavior may change

permanently, such as when a closure is implemented that limits income from fishing for a certain period of time.

When stock assessments indicate ACLs can be increased, quick adjustments for ACLs, as proposed under **Alternative 2 (Preferred)**, would allow for positive social effects without negatively impacting the sustainability of the stock. When stock assessments indicate large decreases in the ACLs are needed, a quick adjustment to the catch level would likely result in negative social effects in that quickly reducing catch levels would occur with less public involvement. However, the South Atlantic Council could choose to modify the ACL through a regulatory amendment rather than an abbreviated framework process.

4.4.4 Administrative Effects

Alternative 1 (No Action) would incur no administrative impact beyond the status quo process for implementing changes to ABC, ACLs, AMs, and ACTs via the regulatory amendment process. The regulatory amendment process, though typically faster than the FMP amendment process, requires much more time than sometimes desired to quickly implement modifications to important harvest parameters when needed. The regulatory amendment process under **Alternative 1 (No Action)** would require the South Atlantic Council to meet and develop a suite of actions and alternatives that would be analyzed via an appropriate National Environmental Policy Act (NEPA) document, and reviewed by the South Atlantic Council at a subsequent meeting to approve the action for implementation. After the regulatory amendment is submitted to NMFS by the South Atlantic Council a series of public comment periods would commence, and the proposed and final rules would be published in the *Federal Register*, if implemented by the Secretary of Commerce.

Alternative 2 (Preferred) would allow ABC, ACLs, AMs, and ACTs to be modified via a modified framework procedure intended to shorten the length of time it takes to implement routine changes in harvest limits while still complying with all applicable laws. It is anticipated that this streamlined approach would eliminate the lengthy regulatory amendment process, and would minimize administrative impacts. It is important to note that changes to harvest parameters through the abbreviated framework process would still be considered framework/regulatory amendments; however, the process by which they are developed and the end product would be somewhat modified compared to standard regulatory amendments.

The process under **Alternative 2 (Preferred)** would entail a review of new scientific information (SEDAR or other stock assessment documents) by the South Atlantic Council's SSC, and a recommendation from the South Atlantic Council to the Regional Administrator for any changes to harvest levels the council determines need to be made. The recommendation from the South Atlantic Council would be accompanied by biological, economic, and social impacts information supported by the best available scientific information. The South Atlantic Council request would need to contain adequate information for NMFS to conduct a Regulatory Impact Review, a Regulatory Flexibility Analysis, a Bycatch Practicability Analysis, a Social Impact Assessment, and to complete the appropriate supporting documentation to fulfill requirements of the NEPA.

If the Regional Administrator agrees to the South Atlantic Council's recommendations, NMFS would prepare supporting documentation required under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), NEPA, and any other applicable law to initiate development of a proposed rule for the action. NMFS would publish the changes in a proposed rule and take comment on the rule for no less than 15 days. If after reviewing public comment, NMFS determines that a final rule to implement the proposed changes should be published, NMFS would publish a final rule in the *Federal Register*, with a 30-day wait period for the regulation to be effective unless the wait period is waived. During the proposed and final rule stages, outreach materials such as fishery bulletins, and frequently asked questions would be developed and disseminated to fishery participants to notify them of any change.

Public comments on actions implemented through the abbreviated framework procedure could be taken several times during the process. The public would be notified in advance of the South Atlantic Council meeting during which the action is planned to be proposed. During the meeting, at which such changes are discussed by the South Atlantic Council, the public would be given the opportunity to provide comments on the action. If public hearings happen to coincide with the timing of development of an abbreviated framework action, the public may again have the opportunity to provide written and verbal comments on the proposed changes. Under the Administrative Procedure Act, opportunity for public comment on the proposed action would be provided during the proposed rule stage of the rulemaking process for no less than 15 days. Additionally, if the action to be taken under the abbreviated framework process requires the development of an environmental impact statement, or an environmental assessment, comments would be taken as required under NEPA.

4.5 Action 5. Modify placement of blue runner in a fishery management unit and/or modify management measures for blue runner

Alternative 1 (No Action). Blue runner are managed under the Snapper Grouper FMP. A federal South Atlantic Unlimited or 225-Pound Snapper Grouper Permit is required to commercially harvest and sell blue runner. A federal Commercial Dealer Permit is required to purchase blue runner. The commercial ACL for blue runner is 188,329 pounds whole weight (lbs ww) and the commercial allocation is 15% of the total ACL. If the commercial ACL is met or is projected to be met, all subsequent purchase and sale is prohibited. If the commercial ACL is exceeded, the Regional Administrator will publish a notice to reduce the ACL in the following season by the amount of the overage, but only if the species is overfished.

The recreational ACL for blue runner is 1,101,612 lbs ww. There is a recreational ACT for blue runner, which equals $ACL \times (1 - \text{percent standard error})$ or $ACL \times 0.5$, whichever is greater. If the annual recreational landings exceed the recreational ACL in a given year the following year's landings will be monitored in-season for persistence in increased landings. The Regional Administrator will publish a notice to reduce the length of the recreational fishing season as necessary. Sale of recreationally harvested blue runner is prohibited (must have a South Atlantic Unlimited or 225-Pound Permit to sell blue runner).

Alternative 2 (Preferred). Remove blue runner from the Snapper Grouper FMP.

Alternative 3. Retain blue runner in the Snapper Grouper FMP but allow commercial harvest and sale of blue runner for vessels associated with a commercial Spanish Mackerel Permit or a South Atlantic Unlimited or 225-Pound Permit for Snapper Grouper. Gillnets are an allowable gear for only blue runner in the snapper grouper fishery.

Alternative 4. Retain blue runner in the Snapper Grouper FMP but exempt it from the Snapper Grouper permit requirement for purchase, harvest, and sale.

4.5.1 Biological Effects

Blue runner has not been assessed in the South Atlantic and the current ABC, as recommended by the South Atlantic SSC, is set at the third highest average landings between 1999 and 2008 based on the South Atlantic Council's ABC control rule. The ABC for this species is 1,289,941 lbs ww, 15% of which is allocated to the commercial sector and 85% to the recreational sector. The ACL is set equal to the ABC. The commercial sector was closed on December 10, 2012, because it was projected that the commercial ACL would be met by that date. Combined commercial and recreational landings in 2012 (804,619 lbs ww) were well below the total ACL of 1,289,941 lbs ww (http://sero.nmfs.noaa.gov/sustainable_fisheries/acl_monitoring/index.html). There are no recreational bag limits, commercial or recreational size limits, or commercial trip limits in place in federal waters.

Table 4.5.1 shows total annual commercial landings of blue runner from two sources: the Southeast Fisheries Science Center's Coastal Fisheries Logbook Program (CFLP) and the Accumulated Landings System (ALS). These two programs are the main source of commercial landings statistics in the southeast region. A comparison of the landings reveals that only an average of 60% of total annual commercial blue runner landings were captured in the CFLP over the past 12 years. The remaining 40% of landings that are reported via trip tickets can be attributed to non-federally permitted fishermen presumably fishing in state waters. Total commercial landings of blue runner in the South Atlantic, as indicated by trip ticket (ALS) data (**Table 4.5.1**), have been above the current commercial ACL of 188,329 lbs ww since 2008 but no ACL was in place until 2012. However, the Comprehensive ACL Amendment (SAFMC 2011c), implemented in April 2012, put in place in-season and post-season AMs to ensure that harvest does not exceed the ACL specified for this species. In 2012, the commercial ACL for this species was projected to be met and commercial harvest was closed on December 10th.

Neither commercial snapper grouper fishermen nor mackerel fishermen commonly target blue runner. Blue runner made up less than 3.2% of the total Spanish mackerel and king mackerel landings for the South Atlantic (**Table 4.5.2**). An examination of commercial logbook landings shows most blue runner are taken with hook-and-line gear; however, a large component are taken with gillnets (**Figure 4.5.1**). Gillnets are not included in the allowable gear to harvest snapper grouper species in the South Atlantic. Out of all the commercial trips with hook-and-line gear that landed at least one pound of blue runner from 2007 through 2011, 51% and 49% also landed other snapper grouper species and king mackerel, respectively. Spanish mackerel were landed on 28% of the trips (**Figure 4.5.2**). A larger number of fishermen harvesting with gillnets land blue runner under a Spanish mackerel permit (approximately 95% of blue runner trips held Spanish mackerel permits, 51% held king mackerel permits, and about 10% held

other snapper grouper permits); whereas fishermen harvesting with vertical lines tend to land blue runner under various permits (approximately 32% of vertical line trips held Spanish mackerel permits, 41% held king mackerel, and 48% held other snapper grouper in 2011). These totals do not add up to 100% because multiple permits can be held by one vessel.

Table 4.5.1. Total annual landings of blue runner (pounds whole weight) as reported through the Coastal Fisheries Logbook Program (CFLP) and the ALS (trip ticket data) from 2000 to 2011.

Year	Logbook Landings	Trip Ticket Landings	% of total reported to Logbook Program
2000	82,582	156,832	52.7%
2001	105,355	158,453	66.5%
2002	85,614	132,756	64.5%
2003	75,544	108,412	69.7%
2004	108,024	149,080	72.5%
2005	80,685	128,773	62.7%
2006	91,250	155,450	58.7%
2007	89,161	130,939	68.1%
2008	99,042	192,593	51.4%
2009	132,082	259,387	50.9%
2010	122,221	223,954	54.6%
2011	131,451	237,028	55.5%

Source: NMFS SEFSC

Table 4.5.2. Total annual landings (pounds whole weight) of snapper grouper species, mackerel (king and Spanish), and total landings of blue runner (pounds whole weight) in the South Atlantic from 2000 to 2011.

Year	Total snapper grouper	Total Mackerel	Total blue runner	Percent SG blue runner	Percent Mackerel blue runner
2000	9,314,188	6,092,744	156,832	1.68%	2.57%
2001	8,759,531	6,074,566	158,453	1.81%	2.61%
2002	8,276,934	5,581,737	132,756	1.60%	2.38%
2003	6,421,749	6,563,229	108,412	1.69%	1.65%
2004	9,002,185	6,963,918	149,080	1.66%	2.14%
2005	8,104,573	7,009,838	128,773	1.59%	1.84%
2006	7,433,209	7,912,722	155,450	2.09%	1.96%
2007	7,440,210	7,636,726	130,939	1.76%	1.71%
2008	8,553,781	7,188,949	192,593	2.25%	2.68%
2009	8,959,344	8,549,078	259,387	2.90%	3.03%
2010	8,402,187	8,843,515	223,954	2.67%	2.53%
2011	7,981,696	7,514,259	237,028	2.97%	3.15%

Source: NMFS SEFSC

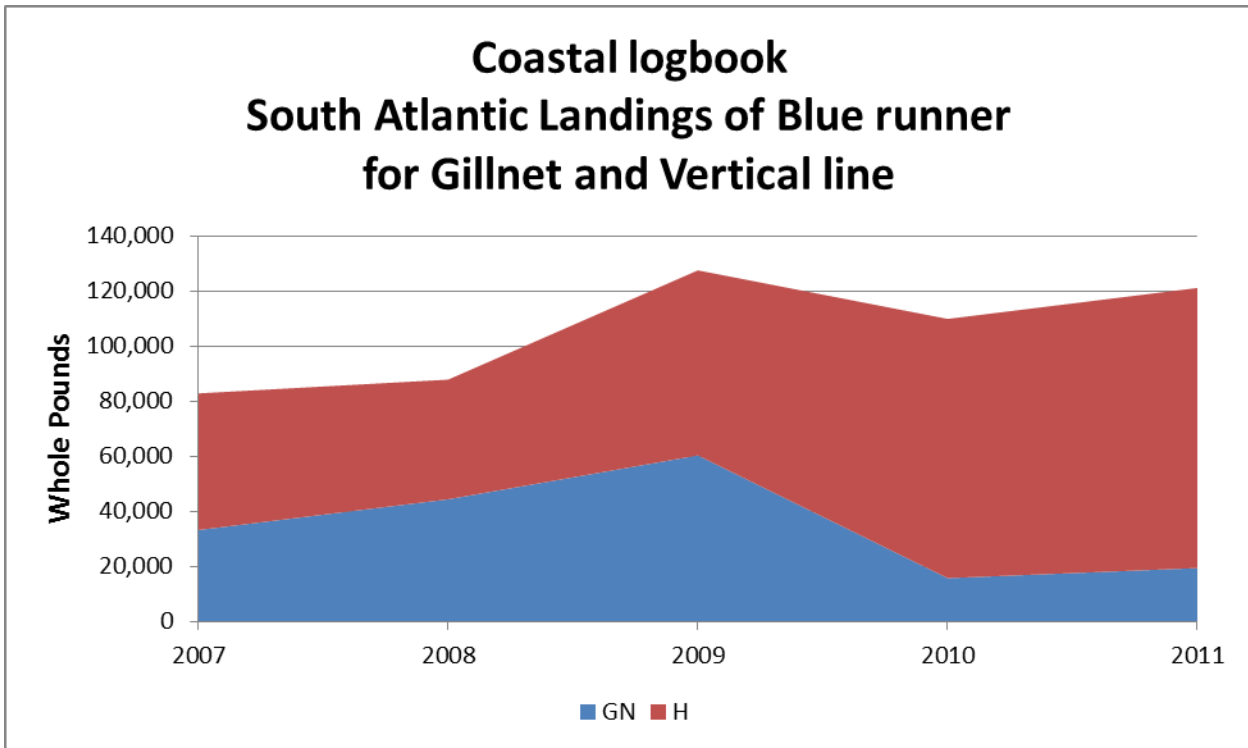


Figure 4.5.1. Percentage of blue runner landed with gillnet (GN) and vertical line (H) gear in the South Atlantic, 2007-2011.

Source: NMFS SEFSC

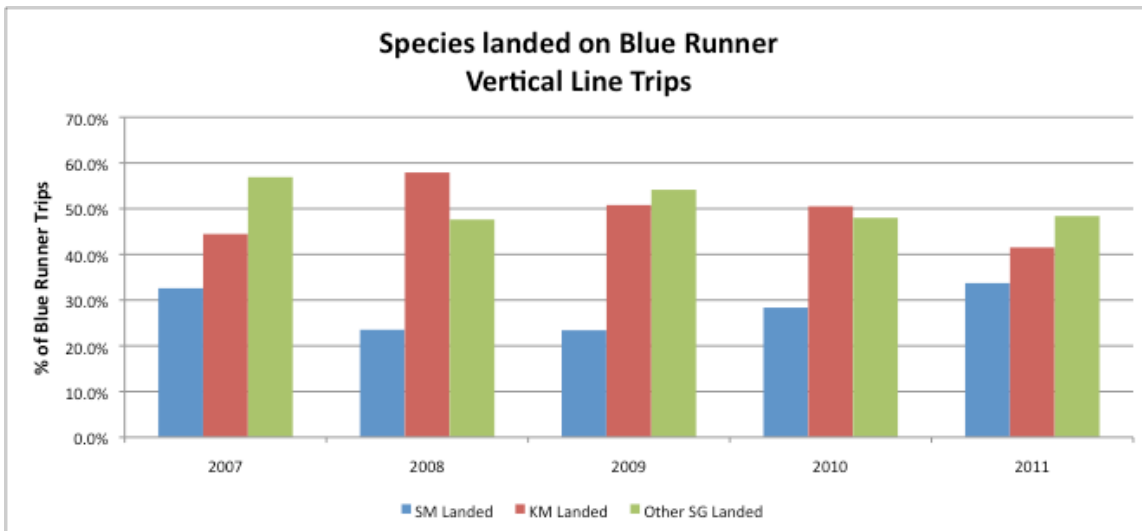


Figure 4.5.2. Percentage of mackerel and other snapper grouper species landed with hook-and-line on trips that caught at least one pound of blue runner in the South Atlantic, 2007-2011.

Source: NMFS SEFSC

On the other hand, out of all the commercial trips with gillnet gear that landed at least one pound of blue runner from 2007 through 2011, 90% or greater also landed Spanish mackerel (**Figure 4.5.3**).

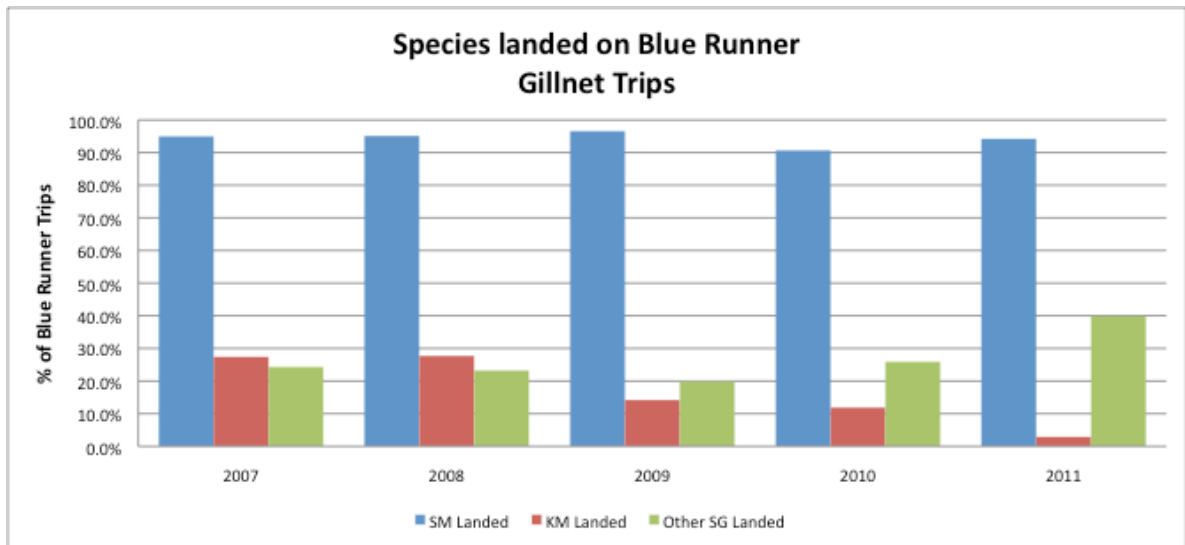


Figure 4.5.3. Percentage of mackerel and other snapper grouper species landed with gillnet gear on trips that caught at least one pound of blue runner in the South Atlantic, 2007-2011. Source: NMFS SEFSC

Recreational landings of blue runner have been substantial, exceeding 2 million pounds four times during 1986-2011 (**Table 4.5.3**). Further, the majority of the landings from 1986 through 2011 can be attributed to the private and shore modes fishing within three miles off the coast of Florida (**Figure 4.5.4**). In addition, in December 2012 the South Atlantic Council received anecdotal information indicating that a substantial blue runner live bait fishery exists in the South Atlantic, whereby some recreational fishermen harvest blue runner for the purpose of selling them as live bait directly to other recreational pelagic and king mackerel fishermen (SAFMC, December 2012 Snapper Grouper Committee Meeting Minutes). The amount of blue runner harvested by federally-permitted fishermen and sold live to recreational fishermen rather than federally-permitted dealers, however, is unknown.

Table 4.5.3. Number of blue runner by MRIP Catch Type, including harvest (fish that are observed at the dock by an MRIP sampler plus fish that are reported dead but are not observed by the sampler) and total catch (harvest plus blue runner reported to be discarded alive).

Year	Fish Observed at the Dock by an MRIP Sampler (A)	Fish Reported Dead not Observed by an MFIP Sampler (B1)	Fish Released Alive (B2)	Harvest (A + B1)	Catch (A + B1 + B2)
1986	364,404	482,432	1,217,881	846,836	2,064,717
1987	95,987	101,085	330,752	197,072	527,824
1988	238,762	297,345	235,187	536,107	771,294
1989	160,009	278,600	551,193	438,609	989,802
1990	169,922	228,023	367,042	397,945	764,987
1991	220,384	362,421	646,881	582,805	1,229,686
1992	45,812	292,779	472,110	338,591	810,701
1993	137,646	252,833	447,223	390,479	837,702
1994	83,743	339,946	588,330	423,689	1,012,019
1995	399,695	412,028	322,807	811,723	1,134,530
1996	239,584	267,087	344,588	506,671	851,259
1997	309,305	504,867	860,535	814,172	1,674,707
1998	167,342	534,652	584,961	701,994	1,286,955
1999	167,183	375,847	507,370	543,030	1,050,400
2000	221,323	500,639	871,664	721,962	1,593,626
2001	361,168	620,616	1,292,460	981,784	2,274,244
2002	326,843	344,943	526,999	671,786	1,198,785
2003	371,711	981,464	1,079,500	1,353,175	2,432,675
2004	161,983	464,538	846,133	626,521	1,472,654
2005	85,422	431,267	661,888	516,689	1,178,577
2006	274,460	944,689	822,370	1,219,149	2,041,519
2007	125,674	583,249	1,159,991	708,923	1,868,914
2008	331,198	615,679	796,058	946,877	1,742,935
2009	200,717	516,912	705,910	717,629	1,423,539
2010	101,262	168,006	499,651	269,268	768,919
2011	182,835	479,305	963,501	662,140	1,625,641

Source: Data are from the Southeast Fisheries Science Center (2013)

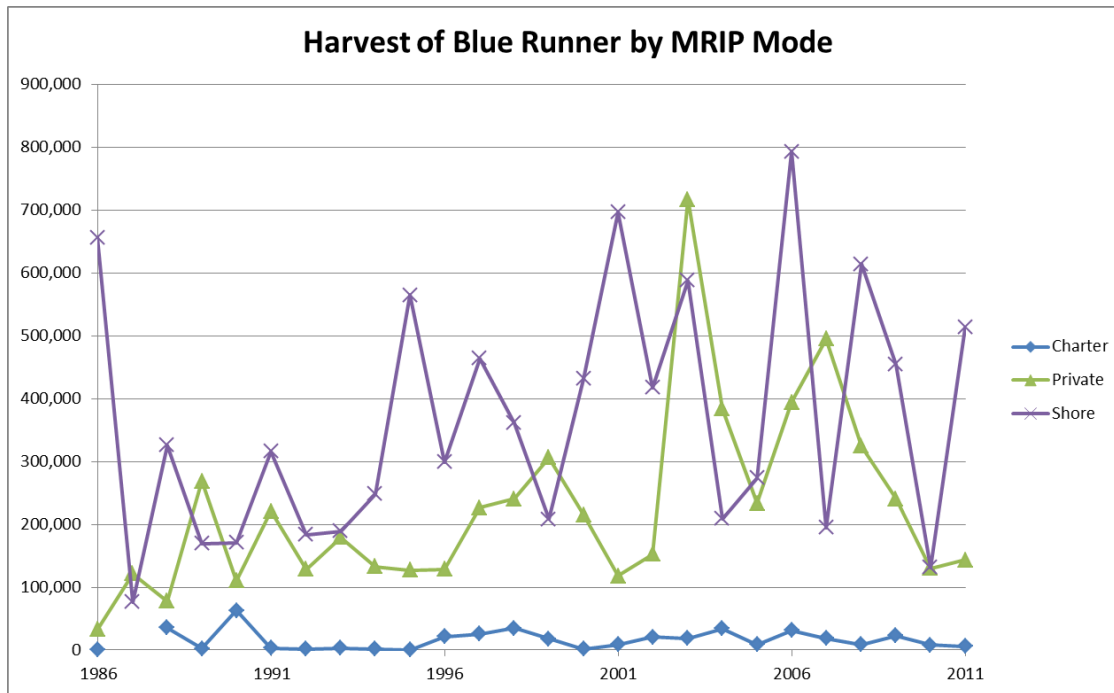


Figure 4.5.4. Harvest (fish that are observed at the dock by an MRIP sampler plus fish that are reported dead but are not observed by the sampler) of blue runner by MRIP Mode in numbers of fish from 1986-2011. Source: Southeast Fisheries Science Center.

According to analyses conducted during development of the Comprehensive ACL Amendment (SAFMC 2011c), blue runner landings in federal waters constituted 20% or less of total average annual landings of blue runner from 2005 through 2009. Evaluation of the landings data from those years, however, did not comprise a breakdown of the recreational catch by mode since that was not needed to support the actions proposed in the amendment. Since the majority of blue runner are harvested in state waters by non-federally-permitted recreational fishermen, those landings are captured by MRIP and are applied towards the recreational ACL.

Because blue runner is caught fairly close to shore in shallow water, and jacks are known to be resilient, it is unlikely that a large portion of the catch is being discarded dead and thus, bycatch mortality with hook-and-line gear is low; however, fish that are reported as being discarded dead but not observed by MRIP samplers make up 68% of total harvest (**Table 4.5.3**). The high numbers of blue runner caught and reported as dead comprise fish that are likely used as bait in the recreational sector.

Blue runner discarded alive almost equal the total harvest (fish observed at the dock by an MRIP sampler plus the blue runner reported as dead but not observed by an MRIP sampler) (**Figure 4.5.5**). This level of live discards may be perceived as being high; however, when compared to similar species caught inshore, such as crevalle jack and red drum, the amount of live discards of blue runner is relatively low.

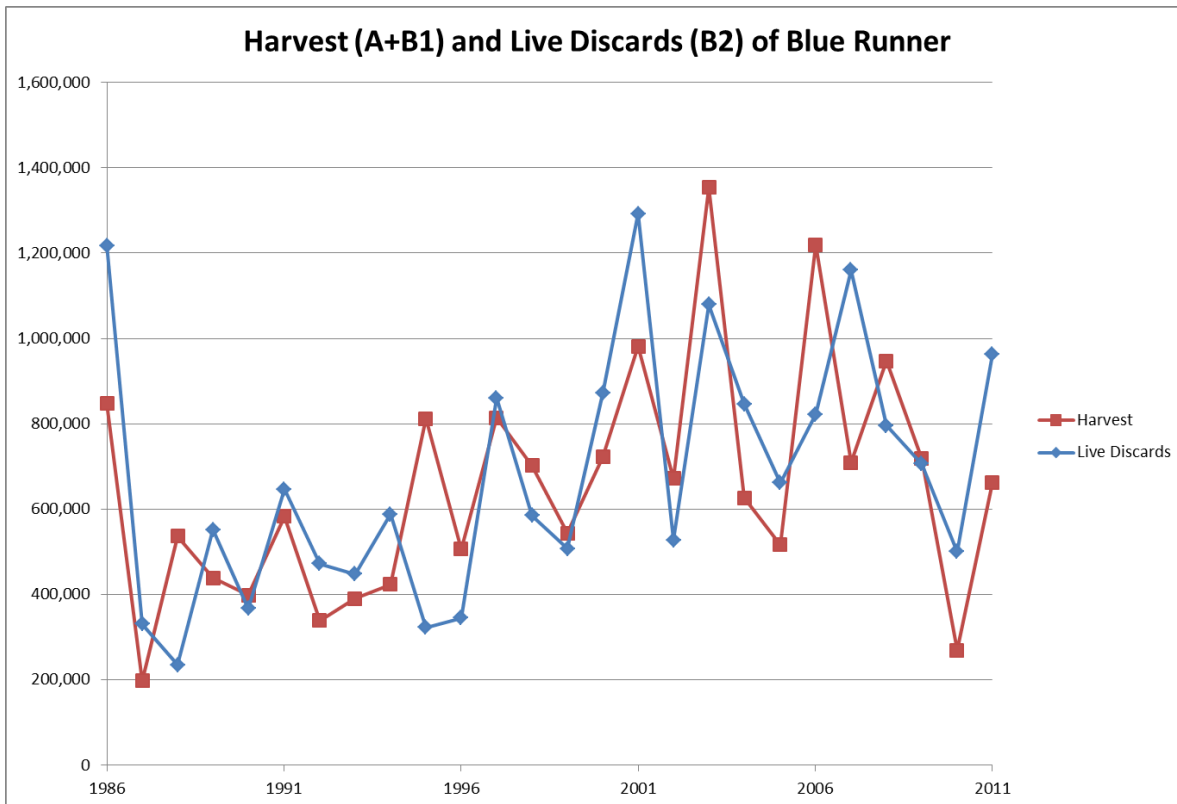


Figure 4.5.5. Total harvest (fish that are observed at the dock by an MRIP sampler plus fish that are reported dead but are not observed by the sampler) and live discards of blue runner in numbers of fish from 1986-2011. Source: Southeast Fisheries Science Center

Under **Alternative 1 (No Action)**, blue runner would continue to be part of the Snapper Grouper FMP. Only fishermen with a valid South Atlantic Unlimited Snapper Grouper Permit or 225-Pound Permit would be legally allowed to harvest them commercially and only dealers with a valid commercial Snapper Grouper Dealer Permit would be allowed to purchase and sell blue runner. Fishermen who do not have a South Atlantic Unlimited or 225-Pound Snapper Grouper Permit would not be able to retain or sell blue runner, and blue runner incidentally caught with gillnets would have to be discarded. **Figure 4.5.1** shows that about 20,000 to 30,000 lbs ww of blue runner landings have been harvested with gillnet, which is not an allowable gear type under **Alternative 1 (No Action)**. If **Alternative 1 (No Action)** is retained, and regulations are enforced, there is a greater chance the commercial ACL would not be met because blue runner would no longer be retained by Spanish mackerel fishermen.

Alternative 2 (Preferred) would remove blue runner from the Snapper Grouper FMP, and hence the Snapper Grouper FMU. NMFS guidelines to define FMUs specify that they may be organized around biological, geographic, economic, technical, social, or ecological goals (50 CFR §600.320(d)(1)). NMFS guidelines for determining whether to include species in an FMU for purposes of federal conservation and management direct the Councils to consider the following seven factors (50 CFR §600.340(b)(2)):

1. the importance of the fishery to the Nation and the regional economy;
2. whether an FMP can improve the condition of the stock;
3. the extent to which the fishery could be or already is adequately managed by states;
4. whether an FMP can further the resolution of competing interests and conflicts;

5. whether an FMP can produce more efficient utilization of the fishery;
6. whether an FMP can foster orderly growth of a developing fishery; and
7. costs of the FMP balanced against benefits.

Blue runner was originally included in the Snapper Grouper FMP because it was thought to co-occur with other, more economically desirable species. Blue runner are caught with other snapper grouper species like yellowtail snapper. Placement of species in distinct management units does not necessarily have to be done according to how closely-related species are within a FMU. Management units, such as snapper grouper, can also be designed around ecological attributes. According to mackerel fishermen, blue runner are usually harvested during the spring months, when they are mixed in with schools of Spanish mackerel. As the season progresses, however, blue runner apparently move elsewhere and fishermen report a very “clean” harvest of Spanish mackerel thereafter. Evidently, there is some ecological association, albeit temporary, between blue runners and Spanish mackerel. This could support placing blue runner in the same Fishery Management Plan (FMP) as Spanish mackerel. However, not enough scientific information is currently available to support this association.

The Magnuson-Stevens Act requires Councils to prepare FMPs only for overfished species and for other species where regulation would serve some useful purpose, and where the present or future benefits of regulation would justify the costs. The overall objective of this action is to identify potential management efficiencies that could be achieved without compromising federal conservation and management objectives. NMFS’ National Standard guidelines state that the principle implicit in National Standard 7 (NS7) is that not every species needs federal management. The Comprehensive ACL Amendment (SAFMC 2011c) considered factors 1-7 above in evaluating whether all species (including blue runner) originally included in the Snapper Grouper FMP in 1983 were in need of federal conservation and management. The Comprehensive ACL Amendment examined 2005-2009 landings and found that more than half (43) of the 73 species included in the Snapper Grouper FMP at that time, were harvested primarily (>50%) in state waters. From 2005 through 2009, 100% of the harvest of 3 species occurred in state waters, greater than 95% of the harvest of 10 species occurred in state waters, and greater than 80% of the harvest of 15 species occurred in state waters. Hence, the Comprehensive ACL Amendment removed 13 species from the Snapper Grouper FMP (excluding blue runner).

Regarding blue runner, data used in the Comprehensive ACL Amendment indicated the majority of blue runner in 2005-2009 were harvested in state waters; however, the species was retained in the Snapper Grouper FMP because the level of harvest in state waters for the commercial and recreational sectors did not meet the threshold criterion developed for the Comprehensive ACL Amendment for removal of the species from the Snapper Grouper FMP. The threshold criterion in the Comprehensive ACL Amendment used to determine which species could be removed from the Snapper Grouper FMP was if 95% (or greater) of landings were from state waters. Further, the Comprehensive ACL Amendment determined blue runner did not meet the criteria specified by the National Standard 1 guidelines for designating it as an ecosystem component species (found at 50 CFR § 600.310 (d) (5) (i)) as they are targeted by some fishermen, and sold or retained for personal use. Therefore, the South Atlantic Council decided to retain blue runner within the Snapper Grouper FMP and, at the time the Comprehensive ACL Amendment was developed, there was little justification to support its removal.

Amendment 27 reevaluates whether blue runner is in need of federal management based on new and updated information. From 2005 through 2011, 76% of blue runner landings came from state waters

(Table 4.5.4), and a large portion of the recreational landings are attributed to the shore mode. Data used for the Comprehensive ACL Amendment, as presented to the Council at the time, did not include harvest from the shore mode. Most recreational (99%; Table 3.3.9) and commercial (99%; Table 4.5.4a) blue runner harvest is from Florida waters. Furthermore, the species is not commonly retained for human consumption (Section 3.2.4), is primarily used as bait, is now known to be valuable as live bait in pelagic fisheries, and is subject to management in Florida state waters. These factors were not considered for blue runner when the South Atlantic Council determined that some species should be removed from the Snapper Grouper FMP in the Comprehensive ACL Amendment.

Table 4.5.4. Blue runner commercial and recreational harvest in pounds whole weight in state and federal waters from 2005-2011.

	EEZ	State
2005	93,736	313,723
2006	198,842	689,537
2007	342,683	441,461
2008	132,749	830,470
2009	48,101	588,595
2010	28,733	250,052
2011	34,745	319,044
Total	879,589	3,432,882

Source: MRIP Web site accessed 1-10-13.

Table 4.5.4a. Percentage of blue runner commercial harvest by state from 2005-2011.

Year	Pounds Landed (whole weight)			
	FL (east)	GA	NC	SC
2005	99.5%	0.0%	0.5%	0.0%
2006	99.8%	0.0%	0.1%	0.0%
2007	97.9%	0.0%	0.1%	2.0%
2008	99.5%	0.1%	0.3%	0.0%
2009	99.8%	0.0%	0.2%	0.0%
2010	99.8%	0.0%	0.2%	0.0%
2011	99.8%	0.0%	0.1%	0.0%

When a species is removed from an FMP, as would be the case under **Alternative 2 (Preferred)**, that species is no longer subject to federal management unless the species is moved from one FMP to another or some other entity assumes management authority. If another FMP, such as the FMP for the Coastal Migratory Pelagics Resources in the Gulf of Mexico and Atlantic Region (CMP FMP) was amended to include blue runner, and management measures that currently exist for the species under the Snapper Grouper FMP were maintained through the CMP FMP, the biological impacts would be neutral, and the South Atlantic Council would have full control over how the blue runner stock would be managed under a different FMP. Alternatively, if another entity were to take over management of blue runner, such as the state of Florida, the South Atlantic Council and NMFS would have no regulatory authority to manage harvest of the species in federal waters. However, in some cases federal management may not be needed if other entities can or are already managing a resource.

From 2005 through 2011, greater than 99% of the commercial and recreational landings were from Florida (**Tables 3.3.9 and 4.5.4a**), and 76% of the landings were from state waters where there currently are some management measures for blue runner. Because Florida does not consider blue runner to be a reef fish species, Florida does not require a federal commercial South Atlantic Unlimited or 225-Pound Snapper Grouper Permit to harvest blue runner in state waters. As blue runner is less frequently taken off states other than Florida, federal management of blue runner is likely not needed in North Carolina, South Carolina, or Georgia. Florida assumed management responsibility for some snapper grouper species previously removed from the Snapper Grouper FMP through the Comprehensive ACL Amendment (SAFMC 2011c). Removal of blue runner from the Snapper Grouper FMP with no plan for future management, however, could lead to uncontrolled harvest of the species in federal waters where approximately 25% of the harvest occurs, which could result in negative biological impacts on the stock. However, if this species was removed from the federal Snapper Grouper FMP then the state of Florida, as stated by their representative on the South Atlantic Council during the March 2013 meeting, would immediately begin review of blue runner rules, consider additional management measures, and extend regulations into federal waters off Florida. Further, any necessary changes to the management of blue runner could be taken to the Florida Fish and Wildlife Conservation Commission and voted on relatively rapidly. At the April 2013 Florida Fish and Wildlife Conservation Commission (FWC) meeting, the Commissioners gave staff direction of their desire to assume management of blue runner in federal waters off Florida and to review current state rules for blue runner (letter from Ken Wright, FWC Chair to David Cupka, South Atlantic Council Chair dated April 29, 2013).

Current regulations that apply to blue runner in Florida waters are:

- Commercial and recreational gear prohibitions – no gill nets, purse seines, fish traps, spearfishing in many areas of state waters, longlines, bangsticks, firearms or explosives, possession of a rebreather and finfish, use of chemicals without a Special Activity License.
- A commercial saltwater products license (SPL) is required to harvest quantities greater than 100 pounds per day of blue runner and the product must be sold to a state licensed wholesale dealer. A federal South Atlantic Unlimited or 225-Pound Permit is not needed to commercially harvest blue runner in state waters.
- Bycatch of blue runner caught in blue crab, stone crab, lobster and sea bass traps and other legal harvesting gear for other fisheries may be sold with a commercial SPL.
- Penalties for unlicensed sale include criminal and civil fines, permanent revocation of license privileges, and imprisonment in addition to penalties levied by the court.
- The first time the commercial product changes hands (usually sold to a wholesale dealer) a trip ticket must be completed
- Recreational license/bag limit – a recreational fishing license for harvest up to 100 pounds or 2 fish per harvester per day (whichever is greater).

Local laws (gear restrictions, area closures, etc.) apply to blue runner in waters off certain Florida counties. As blue runner is less frequently taken off states other than Florida, it is predominantly taken in state waters of Florida where regulations for blue runner are in place, and the state of Florida has indicated that it would extend regulations into federal waters, the species may not be in need of federal management and could be removed from the Snapper Grouper FMP without having a negative biological impact on the stock.

Under **Alternative 3**, Spanish mackerel and South Atlantic Unlimited and 225-Pound Permit holders, respectively, would be able to legally harvest blue runner since the Spanish Mackerel Permit would become a valid permit for the commercial harvest of blue runner and current gear restrictions for the Snapper Grouper FMP would be modified to include gillnets as an allowable gear type to harvest blue runner. Fishermen with commercial South Atlantic Snapper Grouper Unlimited and 225-Pound Permits who do not have a Spanish mackerel permit, would not be able to retain Spanish mackerel when fishing for blue runner with gillnets. Allowing harvest of blue runner with gillnets by permitted commercial snapper grouper fishermen, however, could increase bycatch and thus result in negative biological effects.

Under **Alternative 4**, no federal permit would be required to harvest blue runner. However, unlike **Alternative 3**, **Alternative 4** would not allow fishermen to harvest blue runner with gillnet gear. Allowing blue runner to be legally harvested by fishery participants who may not have targeted them in the past may cause the commercial ACL to be met earlier, and could increase the chance the commercial ACL could be exceeded. However, if the quota monitoring system is functioning properly, this would not be expected to have negative effects on the stock as ACLs and AMs are in place to prevent overfishing from occurring. Removal of the permit requirement for blue runner, as proposed under **Alternative 4**, could, however, result in indirect negative biological impacts. The species would still require federal management because it would remain in the Snapper Grouper FMP, but there would be no mechanism in place for NMFS to reliably collect effort data (i.e., logbook program) to support future stock assessments. Also, if snapper grouper permit holders are allowed to target blue runner with gillnet gear, as could occur under **Alternatives 3** and **4**, they could incidentally capture Spanish mackerel. If those fishermen do not also hold a commercial Spanish mackerel permit, then those mackerel would have to be discarded potentially causing some mortality of Spanish mackerel that was not previously occurring. Additionally, use of gillnets to target blue runner could increase bycatch of other snapper grouper species that co-occur with blue runner. However, increased use of gillnets to target blue runner would not be expected. The intent of **Alternatives 3** and **4** is simply to allow fishermen to retain incidentally caught blue runner when they target Spanish mackerel with gillnets.

Alternatives 1 (No Action), **Alternative 2 (Preferred)**, and **Alternative 4** are not expected to result in negative impacts on ESA-listed species such as sea turtles, large whales, sawfish, and sturgeon; nor would these alternatives likely affect designated HAPCs, coral HAPCs, or other areas of EFH within the management area. In general, these alternatives are not likely to modify the way in which the blue runner segment of the snapper grouper fishery is prosecuted in terms of fishing methodology or intensity. **Alternative 3**, however, would allow a currently prohibited gear type to be used for directed harvest of a snapper grouper species. Gillnets are known to capture both sea turtles and smalltooth sawfish. **Alternative 3** would likely have the fewest biological benefits to these species because it would increase the likelihood of interactions between the fishery and listed species.

Under the Marine Mammal Protection Act, gillnet fisheries in the South Atlantic are considered Category II in the 2012 List of Fisheries (76 FR 73912, November 29, 2011), which categorizes each federally-managed fishery in the United States according to incidents of marine mammal interactions. A Category II designation is given to fisheries with occasional serious injuries and mortalities of marine mammals. Currently there is only one gear type used in the snapper grouper fishery that is considered a Category II fishery, the black sea bass pot. Additionally, the ESA requires re-initiation of formal ESA Section 7 consultation if a proposed action is modified in a manner that causes an effect to listed species or critical habitat that was not considered in a previous consultation. Because gillnets are currently

prohibited in the snapper grouper fishery, the most recent formal Section 7 consultation --“The Continued Authorization of Snapper-Grouper Fishing in the U.S. South Atlantic Exclusive Economic zone as Managed under the Snapper-Grouper Fishery Management Plan of the South Atlantic Region” (NMFS 2006) -- considered only hook-and-line, longline, pot, and powerhead fishing gears. Hence, the addition of gillnets as an allowed gear type would trigger reinitiation of consultation under the ESA.

Gillnets were prohibited for use in the snapper grouper fishery in Amendment 4 to the Snapper Grouper FMP (SAFMC 1991). Prohibiting gillnets in federal waters of the South Atlantic was consistent with gillnet gear prohibitions that already existed in the Gulf of Mexico and in Florida state waters. According to Section J of Amendment 4 (SAFMC 1991), the South Atlantic Council specifically prohibited the use of entanglement nets in the snapper grouper fishery to “address the problem of intense competition among users, and to prevent habitat degradation from nets becoming entangled in reef and live bottom material.” The South Atlantic region continues to include live bottom habitat including highly sensitive reef species such as *Acropora* sp, which could be negatively impacted should a gillnet come into contact with the bottom and become entangled. Additionally, ESA-listed large whale species such as the North Atlantic right whale could co-occur in areas where gillnets may be used to capture blue runner. Should the South Atlantic Council choose **Alternative 3** as the preferred alternative, ESA-listed species could experience a higher risk of entanglement.

4.5.2 Economic Effects

Blue runner represent a relatively small part of the overall catch for the majority of commercial fishermen who land the species. Nearly every trip that landed blue runner typically landed other species, most notably Spanish mackerel, king mackerel, or other species in the snapper grouper complex.

The economic effects of this action rely on data from the Coastal Fisheries Logbook Program (CFLP) data as this is the only dataset that includes economic information. However, this dataset only represents those landings from federally-permitted fishermen and therefore may not include all landings of the species, as the ALS dataset does (**Table 4.5.1**). As ALS data come from dealer reported trip tickets, they include additional landings not included in logbooks such as those from state waters made by non-federally permitted fishermen. Unfortunately, ALS data do not include economic information. Consequently, when comparing logbook data with ALS data there will be some variability in the landings. Additionally, it has been reported that there is sale of blue runner directly by commercial and recreational fishermen to the recreational bait market. Sale of live fish to the recreational bait market can reach \$16 per fish (pers. comm., R. Cardin, 3/13/2013). These transactions are not recorded in federal logbooks and the extent to which this practice occurs is unknown. It is impossible to estimate economic effects of the alternatives on fishing activities that are not contained in logbooks.

Table 4.5.5 shows the overall commercial logbook landings of blue runner for the years 2007 through 2011. The majority of trips landing blue runner each year were in the hook-and-line sector. The price per pound of blue runner depends on market conditions as well as gear type. However, there seems to be no significant trend as all prices hovered around \$1 per pound with a low of \$0.85 for blue runner from gillnets in 2009 to a high of \$1.31 per pound for blue runner caught with other gear (not a gillnet or with hook-and-line).

Table 4.5.5. Commercial landings, nominal (not inflated) value, and average price per pound of blue runner (BR) by gear type in the South Atlantic, 2007-2011.
GN=gillnet, HL=hook-and-line.

Year	Gear	Trips	Lbs BR	Value BR	\$/lb-BR
2007	GN	610	33,127	\$31,851	\$0.98
	HL	1,704	50,063	\$48,913	\$0.99
	Other	339	6,330	\$6,101	\$0.98
2008	GN	447	44,258	\$40,493	\$0.94
	HL	1,888	43,067	\$38,068	\$0.91
	Other	548	11,717	\$10,391	\$0.89
2009	GN	579	60,276	\$50,270	\$0.85
	HL	2,204	67,029	\$68,347	\$0.97
	Other	395	4,814	\$4,512	\$0.94
2010	GN	270	15,717	\$15,767	\$1.02
	HL	2,630	93,913	\$88,840	\$1.01
	Other	812	12,591	\$13,328	\$1.07
2011	GN	257	18,482	\$16,666	\$1.14
	HL	2,923	101,326	\$108,336	\$1.19
	Other	657	10,329	\$12,666	\$1.31

Source: NMFS SEFSC Coastal Fisheries Logbook Program (2012)

As was noted above, commercially, blue runner are primarily landed in the Spanish mackerel, king mackerel and snapper grouper fisheries. **Tables 4.5.6, 4.5.7, and 4.5.8** show trips in which at least one pound of blue runner and Spanish mackerel, king mackerel, or other snapper grouper species were landed by gear, landings, value, and the average percent of the landings comprised by blue runner. On some trips where blue runner were caught, multiple species were landed. For example, many trips landed both king mackerel and snapper grouper species along with blue runner.

Blue runner are not caught on all Spanish mackerel gillnet trips, however (**Table 4.5.6**). They tend to be caught primarily in the fall and occasionally in the spring. In 2010 and 2011, more pounds of blue runner were caught on trips with Spanish mackerel where hook-and-line was the primary gear. Blue runner never comprised more than about 10% of the total pounds and value on trips where both blue runner and Spanish mackerel were caught. On trips where gear other than gillnet or hook-and-line were used, blue runner tended to occur in a smaller portion of the trips.

Table 4.5.6. Commercial landings, nominal (not inflated) value, price per pound of blue runner (BR) and Spanish mackerel (SM) for those trips where at least 1 lb of blue runner and 1 lb of Spanish mackerel (SM) were landed, 2007-2011.

GN=gillnet, HL=hook-and-line.

Year	Gear	Trips	Lbs BR	Value BR	Lbs SM	Value SM	Trip lbs	Trip Value	% lbs BR	% Value BR
2007	GN	582	32,533	\$31,285	482,800	\$393,350	1,228,698	\$950,438	5%	5%
	HL	544	15,849	\$15,274	184,107	\$160,342	441,740	\$431,852	7%	6%
	Other	110	3,610	\$3,580	47,534	\$38,259	123,119	\$112,711	5%	5%
2008	GN	425	43,304	\$39,700	299,790	\$289,430	842,881	\$739,085	7%	7%
	HL	443	12,527	\$11,277	142,964	\$127,558	356,590	\$361,932	6%	5%
	Other	196	3,995	\$3,639	103,667	\$101,451	236,399	\$236,594	5%	5%
2009	GN	559	59,097	\$49,333	304,646	\$302,536	920,479	\$787,380	10%	10%
	HL	505	15,176	\$13,799	133,900	\$116,909	389,550	\$420,969	7%	6%
	Other	107	1,691	\$1,556	55,366	\$45,099	123,690	\$106,465	3%	3%
2010	GN	245	15,040	\$15,012	129,584	\$125,688	384,120	\$328,223	7%	8%
	HL	745	27,902	\$26,138	247,712	\$196,740	742,328	\$773,438	5%	5%
	Other	264	5,827	\$5,680	187,492	\$143,230	429,627	\$356,527	4%	4%
2011	GN	241	14,775	\$14,628	79,011	\$102,966	311,401	\$310,610	6%	6%
	HL	989	34,775	\$34,680	363,090	\$325,236	946,566	\$995,599	6%	5%
	Other	218	3,296	\$3,342	93,081	\$80,645	215,359	\$200,443	3%	3%

Source: NMFS SEFSC Coastal Fisheries Logbook Program (2012)

From 2007 through 2011, more pounds of blue runner were caught along with Spanish mackerel than with king mackerel (**Table 4.5.6** and **Table 4.5.7**). In 2009-2011, however, more than 30,000 lbs of blue runner were caught on trips where at least 1 pound of king mackerel was caught (**Table 4.5.7**). On trips where both blue runner and king mackerel were caught, the percent of the landings comprised by blue runner ranged from an average of 2% to 8%. The value of blue runner on those trips averaged from 2% to 7% of the entire trip value.

Table 4.5.7. Commercial landings, nominal (not inflated) value, price per pound of blue runner (BR) and king mackerel (KM) for those trips where at least 1 lb of blue runner and 1 lb of king mackerel were landed, 2007-2011. GN=gillnet, HL=hook-and-line.

Year	Gear	Trips	Lbs BR	Value BR	Lbs KM	Value KM	Trip lbs	Trip Value	% lbs BR	% Value BR
2007	GN	166	8,199	\$7,936	10,689	\$19,652	407,695	\$347,075	4%	5%
	HL	744	16,790	\$17,219	105,032	\$203,658	416,557	\$767,151	8%	6%
	Other	228	2,537	\$2,267	42,978	\$88,889	113,680	\$200,662	4%	2%
2008	GN	124	14,946	\$13,064	11,090	\$22,425	302,373	\$290,790	6%	6%
	HL	1,085	18,249	\$15,887	266,224	\$482,421	713,093	\$1,248,999	5%	3%
	Other	343	5,016	\$4,217	96,819	\$179,511	250,650	\$411,494	3%	2%
2009	GN	82	7,907	\$6,391	1,798	\$3,708	152,224	\$135,870	7%	7%
	HL	1,105	21,550	\$20,778	288,253	\$428,152	778,711	\$1,151,398	4%	2%
	Other	273	2,377	\$2,166	69,202	\$105,894	159,501	\$231,295	3%	2%
2010	GN	33	3,281	\$3,403	1,202	\$2,107	63,236	\$55,525	6%	7%
	HL	1,325	25,124	\$26,888	361,961	\$632,706	998,488	\$1,613,448	4%	3%
	Other	545	5,072	\$5,709	180,801	\$332,315	423,931	\$713,671	2%	2%
2011	GN	*	*	*	*	*	*	*	*	*
	HL	1,213	29,135	\$35,922	229,147	\$516,774	827,955	\$1,599,991	5%	4%
	Other	419	4,876	\$6,692	94,011	\$210,115	248,581	\$463,981	3%	3%

Source: NMFS SEFSC Coastal Fisheries Logbook Program (2012)

* Indicates the data are confidential.

The number of trips in which blue runner were landed on the same trip as snapper grouper species was similar to that of the number of trips in which they were landed with king mackerel (**Table 4.5.8**). However, more pounds of blue runner tend to be landed with snapper grouper species than with either of the mackerel species. The value of blue runner landed on trips where at least 1 pound of blue runner was landed as well as at least 1 pound of snapper grouper species was landed ranged from 3% to 10%. The value of the blue runner on those trips ranged from an average of 3% to 8% of the total trip value.

Table 4.5.8. Commercial landings, value, price per pound of blue runner (BR) and snapper grouper species (SG) for those trips where at least 1 lb of blue runner and 1 lb of snapper grouper were landed, 2007-2011. GN=gillnet, HL=hook-and-line.

Year	Gear	Trips	Lbs BR	Value BR	Lbs SG	Value SG	Trip lbs	Trip Value	% lbs BR	% Value BR
2007	GN	145	7,739	\$7,378	3,608	\$2,480	316,719	\$253,348	3%	4%
	HL	918	28,362	\$27,538	245,265	\$672,049	543,348	\$1,073,844	10%	7%
	Other	81	2,597	\$2,538	7,286	\$15,518	52,051	\$67,508	6%	4%
2008	GN	101	16,153	\$14,271	4,570	\$3,018	234,547	\$202,677	8%	8%
	HL	823	21,313	\$18,837	254,341	\$666,134	535,891	\$1,067,309	8%	5%
	Other	150	5,922	\$5,533	20,717	\$55,603	138,151	\$227,834	5%	4%
2009	GN	113	9,366	\$8,232	3,815	\$3,014	201,759	\$158,180	5%	5%
	HL	1,162	38,089	\$42,315	476,903	\$1,177,706	855,777	\$1,653,932	8%	3%
	Other	101	1,750	\$1,739	12,162	\$31,526	60,324	\$95,962	5%	5%
2010	GN	68	5,492	\$5,484	3,108	\$2,332	130,721	\$110,071	6%	6%
	HL	1,223	64,326	\$58,356	519,954	\$1,327,667	1,121,945	\$2,032,080	7%	5%
	Other	188	3,840	\$3,835	23,587	\$53,155	182,295	\$252,513	4%	4%
2011	GN	106	7,439	\$7,819	7,537	\$4,706	168,503	\$163,210	5%	5%
	HL	1,394	66,434	\$68,088	803,527	\$2,301,105	1,337,440	\$2,979,027	8%	5%
	Other	159	3,026	\$3,361	12,738	\$28,728	120,763	\$168,865	4%	4%

Source: NMFS SEFSC Coastal Fisheries Logbook Program (2012)

Blue runner have been landed in the past on trips where no snapper grouper species were present, however. Some of the fishermen who had trips that landed blue runner but no snapper grouper species may in fact have a South Atlantic Snapper Grouper Permit. **Table 4.5.9** gives an indication that there were roughly 1,500 to 2,200 trips per year from 2007 through 2011 in which no snapper grouper species were landed with blue runner. These trips landed between 48,563 and 82,914 pounds annually with a value of \$51,846 to \$74,279 in 2011 dollars.

Table 4.5.9. Commercial landings and value of blue runner landed on trips where there were no snapper grouper complex species landed, 2007-2011.

Year	Trips	Pounds	Nominal Value	Inflated Value (2011)
2007	1,509	50,822	\$49,412	\$53,605
2008	1,809	55,654	\$50,312	\$52,563
2009	1,802	82,914	\$70,844	\$74,279
2010	2,233	48,563	\$50,260	\$51,846
2011	2,178	53,238	\$58,400	\$58,400

Source: NMFS SEFSC Coastal Fisheries Logbook (2012)

Alternative 1 (No Action) would have the greatest negative economic effects should the requirement to possess a South Atlantic Snapper Grouper Permit be enforced. According to **Tables 4.5.8** and **4.5.9**, on average \$58,139 in annual revenue would be forfeited by fishermen if the existing regulations were enforced, as well as the value of gillnet landings at an average of \$185,839.

Alternative 4 would not place the additional burden on gillnet fishermen of acquiring a South Atlantic Unlimited or 225-Pound Snapper Grouper Permit but would also not remove the gillnet prohibition for harvest of species in the Snapper Grouper FMP, which could negatively impact small fishing businesses that depend on the blue runner gillnet landings during part of the year. **Alternative 4** would have the second highest negative economic effect as it would exempt the species from the Snapper Grouper permit requirement, but would not exempt it from being caught using a gillnet. According to **Table 4.5.5**, on average fishermen would lose \$32,499 (inflation adjusted to the value of a dollar in 2011).

Alternative 3 would have the next highest negative economic effects as those fishermen who do not already possess a Spanish Mackerel Permit would be required to buy one. Nearly all of the fishermen who land blue runner also landed Spanish mackerel, king mackerel, or snapper grouper species, therefore, most of them already have at least one federal permit. Spanish Mackerel Permits, however, are open access. Those that do not already have a Spanish mackerel permit, would need to pay an additional \$12.50 annually to purchase one. It is not known at this time how many fishermen who have been landing blue runner do not possess a snapper grouper, king mackerel, or Spanish Mackerel Permit and would be required to buy a Spanish Mackerel Permit to continue to participate in the fishery.

Alternative 2 (Preferred) would not have any negative economic effects on fishermen in the short term as they would be able to conduct their fishing operations as usual. If they decided to make changes to their fishing practices to target more blue runner, they would be making that decision naturally with profitability in mind. The long-term effects of this alternative would depend on whether the harvest of blue runner would be sustainable in the absence of federal management of the species. Should blue runner become overfished, commercial and for-hire vessel profits would tend to decline over time because their catch and revenues would decline or their cost would increase if they decided to maintain about the same level of revenues. However, it should be noted that, with blue runner removed from the snapper grouper FMP and the fact that most blue runner are caught off of Florida waters, fishing regulations in Florida could be extended to the EEZ. This would allow continued sustainable management of the species. In addition, the South Atlantic Council expressed its intention to continue monitoring trends and landings of the species for possible future management actions affecting the species.

None of the alternatives in this action are likely to have additional positive or negative economic effects for the recreational sector that lands blue runner for recreational purposes.

4.5.3 Social Effects

There are two groups of commercial fishermen who may be directly impacted by changes in blue runner management, specifically in regards to permit and gear requirements: fishermen who harvest blue runner with hook-and-line; and fishermen who harvest blue runner with Spanish mackerel gillnets. Hook-and-line landings are primarily based in South Florida, with most landings in Monroe County, Miami-Dade County, and Palm Beach County. Blue runner landings with gillnet are primarily reported in the central east coast of Florida, with most landings in Brevard County (around Cape Canaveral) and some landings in Martin County, Indian River County, and St Lucie County. In general, blue runner landings are low relative to other species and in most years, landings are confidential at the county level.

Although the south Florida counties represent the highest landings of blue runner with hook-and-line, and the counties on the central east coast of Florida have the most landings of blue runner with gillnet, blue runner is not an economically significant species in the snapper grouper commercial fishery or to the fishing communities (see **Table 4.5.1** in **Section 4.5.1**). However, there are pockets of vessels that catch blue runner with gillnets while harvesting Spanish mackerel, particularly around Cape Canaveral, Florida, and the fishermen working on these vessels may be dependent on blue runner catch during the late summer and early fall. It is likely that these are small operations and blue runner catch in the Spanish mackerel gillnet sector makes up a significant part of their income.

Under **Alternative 1 (No Action)** any continued landings and sales of blue runner from the Spanish mackerel gillnet sector would be illegal unless the fishermen held a South Atlantic Snapper Grouper Unlimited Permit or South Atlantic Snapper Grouper 225-Pound Permit. Unlimited permits are available (225-Pound Permits are non-transferable) but the two-for-one transfer requirement would require additional capital to buy into a limited entry fishery. Additionally, the South Atlantic Snapper Grouper Unlimited Permit requires fees for renewal each year in order to maintain a valid permit. The Spanish mackerel commercial permit, under which some of the smaller operations that are harvesting blue runner in the Spanish mackerel gillnet sector operate, is open access and does not require renewal, only an annual purchase. This permit allows flexibility for fishermen, particularly small businesses, in that an individual can purchase a Spanish mackerel permit and participate in the Spanish mackerel gillnet sector in one year, but choose to not participate in the next year without spending money on the permit. Not making changes to blue runner management (**Alternative 1 (No Action)**) would have the most impact on the small vessels that currently only have Spanish mackerel permits by either requiring each fisherman to purchase two South Atlantic Snapper Grouper Unlimited Permits and maintaining permit fees, or by no longer being allowed to legally land and sell blue runner. Additionally, any dealers who depend on supply of blue runner during late summer and early fall would be affected if fishermen cannot or will not obtain a South Atlantic Snapper Grouper Unlimited Permit.

It should also be noted that the harvest of blue runner with gillnet, a prohibited gear in the snapper grouper fishery, in addition to sale of blue runner without a Snapper Grouper Unlimited Permit or South Atlantic Snapper Grouper 225-Pound Permit is illegal under the current regulations. However, no violations have been reported in over fifteen years and many fishermen participating in this small portion of the blue runner component of the snapper grouper fishery were likely unaware of the requirements. Most importantly, it is possible that blue runner landings may have helped some of these fishermen try to qualify for a snapper grouper limited access permit during initial issuance of those permits in Amendment 8.

Removing blue runner from the Snapper Grouper FMU (**Alternative 2 (Preferred)**) would be beneficial to fishermen without a South Atlantic Unlimited Snapper Grouper Permit or 225-Pound Permit who harvest blue runner with gillnet because it would not require an additional permit and would allow harvest with gillnet. This would also be expected to have no negative impacts on fishermen with a South Atlantic Unlimited Permit or a 225-Pound Snapper Grouper Permit who harvest blue runner with hook-and-line.

Alternative 3 may negatively impact fishermen in that the sale of blue runner would be limited to dealers possessing a Snapper Grouper Commercial Dealer Permit. However, the South Atlantic and Gulf of Mexico Councils have approved a generic amendment, which if approved by the Secretary of Commerce, would implement a single dealer permit for multiple fisheries including snapper grouper and coastal migratory pelagics. It is currently only possible to speculate that an average of 40% of blue runner commercial landings are by non-federally permitted vessels (**Table 4.5.1**). **Alternative 4** would not place the additional burden on gillnet fishermen of acquiring a South Atlantic Unlimited Snapper Grouper Permit but would also not remove the gillnet prohibition for harvest of blue runner, which could negatively impact small fishing businesses that depend on the blue runner gillnet landings during part of the year.

4.5.4 Administrative Effects

Under **Alternative 1 (No Action)**, the administrative impacts would not be likely to significantly increase or decrease. As increased attention has been placed on landings of blue runner without a South Atlantic Unlimited Snapper Grouper Permit or 225-Pound Permit, there is a chance landings of blue runner could decrease and the ACL would not be met. **Alternative 2 (Preferred)** would have no negative administrative impacts. Under this alternative, NMFS would no longer manage or monitor landings of the species taken from federal waters, and there would be no federal regulations for blue runner. **Alternative 3** would allow commercial harvest of blue runner with gillnet gear by vessels with a Spanish Mackerel Permit or either of the snapper grouper permits. If **Alternative 3** were chosen, it is likely an ESA Section 7 consultation would have been re-initiated, which would be a lengthy process and would require the development of a new Biological Opinion for the snapper grouper fishery. **Alternative 4** would result in a similar level of administrative impacts as **Alternative 2 (Preferred)** since the Snapper Grouper FMP would need to be amended to exempt blue runner from the snapper grouper permit requirements for purchase, harvest, and sale. Regulations would simply be modified to eliminate the requirement, hence, **Alternative 4** would require only the development of constituent outreach materials informing them of the change to the regulations, and publication of a proposed and final rule, if the action is approved for implementation by the Secretary of Commerce. **Alternatives 3 and 4** have the potential to increase the rate at which the ACL is met and AMs are implemented, which would represent an enhanced administrative burden relative to the status quo.

Chapter 5. Reasoning for Council's Choice of Preferred Alternatives

5.1 Action 1. Extend the South Atlantic Council's area of jurisdiction for management of Nassau grouper to include the Gulf of Mexico

5.1.1 Snapper Grouper Advisory Panel Comments and Recommendations

The Snapper Grouper Advisory Panel (AP) recommended that the South Atlantic Fishery Management Council (South Atlantic Council) request the National Marine Fisheries Service (NMFS) thoroughly research the historical distribution of Nassau grouper and known spawning aggregations in the South Atlantic. No AP members are aware of many historical landings or any spawning areas for Nassau grouper in the South Atlantic. The AP is concerned that a listing of Nassau grouper under the Endangered Species Act (ESA) could lead to restrictions on future fishing activity. Furthermore, fishermen are concerned that efforts to protect Nassau grouper in the South Atlantic would be ineffective yet they would carry the potential to impact them in a negative manner.

5.1.2 Law Enforcement Advisory Panel Comments and Recommendations

The Law Enforcement Advisory Panel (LEAP) reviewed Amendment 27 at their February 2013 meeting in Charleston, South Carolina. The LEAP did not have any recommendations for this action.

5.1.3 Scientific and Statistical Committee Comments and Recommendations

The Scientific and Statistical Committee (SSC) reviewed Amendment 27 at their October 2012 meeting. The SSC had no recommendations for this action.

5.1.4 South Atlantic Council Choice for Preferred Alternative

Preferred Alternative 2. The South Atlantic Council would extend its jurisdictional authority for management of Nassau grouper to include federal waters of the Gulf of Mexico. Harvest of Nassau grouper in the Gulf of Mexico exclusive economic zone (EEZ) and the South Atlantic EEZ would continue to be prohibited.

The Gulf of Mexico Fishery Management Council (Gulf Council) took action to remove Nassau grouper from the Reef Fish Fishery Management Unit in 2011, with the expectation that the South Atlantic Council would manage Nassau grouper in the Gulf of Mexico. NMFS subsequently published a notice of agency action designating the South Atlantic Council as the responsible agency to manage Nassau grouper in the southeast U.S., stating that any action to remove the current prohibitions on the possession of Nassau grouper in the Gulf of Mexico would have a delayed effective date until the South Atlantic Council took action to extend its authority into the Gulf of Mexico.. Since 2011, however, the South Atlantic Council has been addressing other pressing management issues often with statutory deadlines.

During discussions at their December 2012 meeting, a South Atlantic Council member related his experience landing Nassau grouper prior to any regulations being placed on its harvest. He indicated that a number of Florida vessels regularly visited Bahamian waters to harvest Nassau grouper. The catch was landed in the U.S., however, and no information was provided on harvest area at that time. The individual requested that NMFS take this information into consideration while conducting the ESA review for this species.

The South Atlantic Council concluded **Preferred Alternative 2** best meets the purpose of assuming management of Nassau grouper throughout its range in the Southeast U.S. and extending needed regulations to protect it. **Preferred Alternative 2** also best meets the objectives of the Snapper Grouper FMP, as amended, while complying with the requirements of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and other applicable law.

5.2 Action 2. Modify the crew size restriction for dual-permitted snapper grouper vessels

5.2.1 Snapper Grouper Advisory Panel Comments and Recommendations

The Snapper Grouper AP did not provide recommendations for this action. The AP met in November 2012 and the South Atlantic Council added this action to Amendment 27 at their December 2012 meeting.

5.2.2 Law Enforcement Advisory Panel Comments and Recommendations

At their meeting in February 2013, the LEAP recommended that the South Atlantic Council choose the alternative that would result in consistent regulations between the South Atlantic and the Gulf of Mexico. Amendment 34 to the Gulf of Mexico Council's Reef Fish FMP increased the maximum number of crew members on dual-permitted vessels to four. Hence, the LEAP expressed their preference for **Alternative 3**.

5.2.3 Scientific and Statistical Committee Comments and Recommendations

The SSC did not provide a recommendation for this action. The SSC met in October 2012 and the South Atlantic Council added this action to Amendment 27 at their December 2012 meeting.

5.2.4 South Atlantic Council Choice for Preferred Alternative

Preferred Alternative 3. Increase the limit to four crew members for dual-permitted vessels.

The South Atlantic Council concluded **Preferred Alternative 3** best meets the purposes of increasing safety-at-sea and issuing consistent regulations between the Gulf of Mexico and South Atlantic regions. **Preferred Alternative 3** 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.

5.3 Action 3. Modify bag limit restriction on snapper grouper species for captains and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper

5.3.1 Snapper Grouper Advisory Panel Comments and Recommendations

The Snapper Grouper AP did not provide recommendations for this action. The AP met in November 2012 and the South Atlantic Council added this action to Amendment 27 at their December 2012 meeting.

5.3.2 Law Enforcement Advisory Panel Comments and Recommendations

The LEAP confirmed that the existing regulation presents a challenge for enforcement and recommended aiming for consistency. Since retention of bag limit quantities of most reef fish by captain and crew of for-hire vessels is currently prohibited in the Gulf of Mexico, the LEAP supported **Alternative 3**. However, as **Preferred Alternative 2** allows for consistent regulations in the South Atlantic, it had greater support from LEAP than did **Alternative 1 (No Action)**.

5.3.3 Scientific and Statistical Committee Comments and Recommendations

The SSC did not provide a recommendation for this action. The SSC met in October 2012 and the South Atlantic Council added this action to Amendment 27 at their December 2012 meeting.

5.3.4 South Atlantic Council Choice for Preferred Alternative

Preferred Alternative 2. Remove the snapper grouper species retention restrictions for captain and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper.

South Atlantic Council members expressed concern that to not allow captain and crew of for-hire vessels to retain bag limit quantities of snapper grouper species eliminates access to a public resource without providing a significant conservation benefit. There was strong support from the general public to do away with the captain and crew bag limit restriction. Captain and crew from for-hire vessels indicated the fish they are allowed to retain for personal consumption helps them keep their food budgets down and provides a good source of protein for their families. In selecting their preferred alternative, the South Atlantic Council emphasized that retained fish should not sold, and that the resource can handle the additional harvest due to existing management. Sale of recreationally caught snapper grouper species is prohibited in the South Atlantic. Amendment 16 established multiple measures to end overfishing of gag and vermilion snapper through quotas, reduced bag limits, and shallow water grouper spawning closure. The current bag limit restriction on for-hire captain and crew, which was also implemented through Amendment 16, was expected to result in some negative socio-economic impacts. Nonetheless, the South Atlantic Council felt the measure would help end overfishing of gag and vermilion snapper. An update to the vermilion snapper stock assessment, completed in 2012 (SEDAR 17 2012), indicated the stock is neither overfished nor undergoing overfishing. Gag was last assessed in 2006 (SEDAR 10 2006), prior to the implementation of Amendment 16. At that time, the assessment results indicated gag was undergoing overfishing and was approaching an overfished condition.

Since the implementation of Amendment 16, there have been numerous changes in fisheries management to ensure that vermilion snapper and gag overfishing does not occur. All species in the

snapper grouper fishery, like other managed fisheries in the South Atlantic, are subject to annual catch limits (ACLs) and accountability measures (AMs) to prevent overfishing. Therefore, given all the measures implemented through Amendment 16, along with the subsequent requirements for ACLs and AMs, the South Atlantic Council determined that eliminating the retention restriction for captain and crew of for-hire vessels would not result in overfishing of gag. Additionally, gag, vermilion snapper, and many of the snapper grouper species that the for-hire sector targets, are being harvested well below their ACLs. An update to the gag stock assessment is tentatively scheduled for 2014.

The South Atlantic Council concluded **Preferred Alternative 2** best meets the purpose of minimizing socio-economic impacts to fishermen and fishing communities that utilize the snapper grouper fishery. **Preferred Alternative 2** would allow for some consistency in snapper grouper regulations within the South Atlantic. The South Atlantic Council's choice of the preferred alternative reflects the willingness to first work to minimize negative socio-economic effects before considering other issues that may be desirable but not necessarily reasonable. The prohibition on retention of the bag limit of vermilion snapper, groupers, and tilefishes provides for a very small reduction in harvest. Since effective management measures are in place to ensure overfishing of gag and vermilion snapper and tilefishes does not occur, the South Atlantic Council concluded the bag limit harvest prohibition by captain and crew was not needed. Furthermore, the South Atlantic Council concluded the preferred alternative would ease law enforcement concerns as it would reduce confusion about which snapper grouper species could be retained by captain and crew in the South Atlantic. **Preferred Alternative 2** 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.

5.4 Action 4. Modify Section I of the Snapper Grouper FMP Framework procedure

5.4.1 Snapper Grouper Advisory Panel Comments and Recommendations

The Snapper Grouper AP supported the Council's choice of **Alternative 2** as a preferred.

5.4.2 Law Enforcement Advisory Panel Comments and Recommendations

The LEAP did not provide a recommendation or comments on this action.

5.4.3 Scientific and Statistical Committee Comments and Recommendations

The SSC did not provide a recommendation or comments on this action.

5.4.4 South Atlantic Council Choice for Preferred Alternative

Preferred Alternative 2. Modify Section I of the Snapper Grouper Framework Procedure by adding a new Item #9 (and renumber the existing 9 as 10 and 10 as 11):

9. Adjustments to ABCs, ACLs, and ACTs according to the existing ABC Control Rule(s) and formulas for specifying ACLs and ACTs that have been approved by the Council and that were implemented in a fishery management plan amendment to the FMP. This abbreviated process is authorized as follows:

- a. *Following the Scientific and Statistical Committee's (SSC's) review of the stock assessment, the Council will determine if changes are needed to ABC, ACL, and/or ACT and will so advise the RA.*
- b. *The Council will first hold a public hearing during the Council meeting during which they will review the stock assessment and the SSC's recommendations. In addition, the public will be advised prior to the meeting that the Council is considering potential changes to the ABC, ACL, and/or ACT and the Council will provide the public the opportunity to comment on the potential changes prior to and during the Council meeting.*
- c. *If the Council then determines that modifications to the ABC, ACL, and/or ACT are necessary and appropriate, they will notify the RA of their recommendations in a letter with the Council's analysis of the relevant biological, economic, and social information necessary to support the Council's action.*
- d. *The RA will review the Council's recommendations and supporting information. If the RA concurs that the Council's recommendations are consistent with the objectives of the FMP, the Magnuson-Stevens Fishery Conservation and Management Act, and all other applicable law, the RA is authorized to implement the Council's proposed action through publication of appropriate notification in the Federal Register, providing appropriate time for additional public comment as necessary.*
- e. *If the Council chooses to deviate from the ABC control rule(s) and formulas for specifying ACLs and ACTs that the Council previously approved and that were implemented in a fishery management plan amendment to the FMP, this abbreviated process would not apply, and either the framework procedure would apply with the preparation of a regulatory amendment or a fishery management plan amendment would be prepared. Additionally, the Council may choose to prepare a regulatory amendment or a fishery management plan amendment even if they do not deviate from the previously approved ABC control rule(s) and formulas for specifying ACLs and ACTs.*

The South Atlantic Council's intent behind Action 4 is to shorten the time it normally takes to make adjustments to ACLs when a stock assessment indicates adjustments are needed. The Framework process currently in place under the Snapper Grouper FMP does allow the South Atlantic Council to make changes to certain management measures, including ACLs, in less time than through an amendment to the Fishery Management Plan. The process, however, takes several months, during which time, socio-economic or biological benefits are not always being realized. The South Atlantic Council had initially proposed amending the Snapper Grouper Framework to allow for adjustments to ACLs via publication of a notice in the *Federal Register*. However, at the March 2013 meeting, NOAA General Counsel (GC) advised the South Atlantic Council that such a process would not meet current legal requirements and NMFS would likely disapprove it. NOAA GC explained the shortcomings of the proposed alternative and suggested modifications that would render the proposed changes more likely to be approved. **Preferred Alternative 2**, therefore, was modified to authorize the RA to implement the Council's proposed action through publication of appropriate notification in the *Federal Register*, and providing appropriate time for additional public comment as necessary.

The Council discussed the need to provide adequate public input and concluded that the following opportunities provide sufficient opportunity:

1. Analyses will be included in the briefing book prior to the council meeting.
2. Informal staff presentation – Webinar Question & Answer session prior to council meeting.
3. Written public comments will be accepted prior to the council meeting.
4. Public hearing during the council meeting where the results were being discussed

In addition, the NMFS Regional Administrator will publish a notice in the Federal Register and will provide an appropriate time for additional public comment as necessary.

The South Atlantic Council concluded **Preferred Alternative 2** best meets the purpose of maximizing socio-economic and biological benefits resulting from an adjustment to acceptable biological catch (ABC), ACLs, and annual catch targets. The South Atlantic Council stated that modification of the Framework process to expedite adjustments was critical to be able to maximize these benefits. The South Atlantic Council understands the need to increase decision-making flexibility when it is justified and properly supported by science. **Preferred Alternative 2** 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.

5.5 Action 5. Modify placement of blue runner in a fishery management unit and/or modify management measures for blue runner

5.5.1 Snapper Grouper Advisory Panel Comments and Recommendations

At their meeting in November 2012, the AP made a motion to support the removal of blue runner from the Snapper Grouper FMP (**Preferred Alternative 2**). The motion was approved with 1 opposed.

5.5.2 Law Enforcement Advisory Panel Comments and Recommendations

At their meeting in February 2013, the LEAP supported **Preferred Alternative 2**, removal of blue runner from the Snapper Grouper FMP.

5.5.3 Scientific and Statistical Committee Comments and Recommendations

At their meeting in October 2012, the SSC expressed concern that landings of blue runner were low relative to the rest of the snapper grouper complex yet the ABC is set at over a million pounds. The SSC discussed that perhaps its placement in the Snapper Grouper FMU should be not be judged relative the percentage contribution of blue runner landings to those of the snapper grouper fishery overall since the South Atlantic Council has chosen to retain many species in the management unit whose landings contribute a much lower percentage than that of blue runner. The SSC requested to see the amendment again at their April 2013 meeting with more analyses and in a more finalized format. The amendment was provided to the SSC via e-mail as their scheduled meeting in 2013 took place after the South Atlantic Council took action to approve the amendment for formal review. However, no comments were received from the SSC.

5.5.4 South Atlantic Council Choice for Preferred Alternative

Preferred Alternative 2. Remove blue runner from the Snapper Grouper FMP.

The majority of public comments on this action were in favor of removing blue runner from the Snapper Grouper FMP (**Preferred Alternative 2**). The South Atlantic Council discussed at length the rationale for their choice of **Preferred Alternative 2** at their March 2013 meeting. During development of the Comprehensive ACL Amendment, whereby 13 species were removed from the Snapper Grouper FMU, the South Atlantic Council did not possess as much in-depth information on the landings of blue runner, percentage of the catch from the shore mode (gear that is most often used to harvest blue runner), and its importance in the live bait industry. Data used for the Comprehensive ACL Amendment, as presented to the Council at the time, did not include harvest from the shore mode. The South Atlantic Council reevaluated whether blue runner is in need of federal management based on updated and new information.

The South Atlantic Council cited the following reasons for proposing to remove the species from the Snapper Grouper FMU:

- Blue runner is in the Jacks family and there was some discussion of creating a separate Fishery Management Plan for jack species in the future.
- The vast majority of landings of blue runner (99%) are in waters off of Florida. Of that, 75% are in state waters and 56% are landed in the shore mode.
- Blue runner is not commonly retained for human consumption.
- Management is in place for blue runner in Florida state waters.
- If blue runner were no longer under federal management, Florida would act to extend existing regulations into federal waters and put in place any other management measures the state deems appropriate for the sustainable management of the species. At the April 2013 Florida Fish and Wildlife Conservation Commission (FWC) meeting, the Commissioners gave staff direction of their desire to assume management of blue runner in federal waters off Florida and to review current state rules for blue runner (letter from Ken Wright, FWC Chair to David Cupka, South Atlantic Council Chair dated April 29, 2013).

These factors were not considered for blue runner when the South Atlantic Council determined that some species should be removed from the Snapper Grouper FMP in the Comprehensive ACL Amendment. Furthermore, the South Atlantic Council does not consider the criteria that were used for removing species from the Snapper Grouper FMP through the Comprehensive ACL Amendment to be a static set of guidelines against which all species considered for removal will be evaluated. Rather, the South Atlantic Council prefers to be adaptive and consider as much new information as possible in order to determine whether a species is in need of conservation and management. Moreover, in June 2011, when the Comprehensive ACL Amendment was being developed, the South Atlantic Council approved a motion to request that staff provide an update on landings and trends every three years for species removed from the Snapper Grouper FMP through that amendment. Thus, the South Atlantic Council intends to continue to monitor landings and trends to ensure a species in need of conservation and management would not be excluded and to examine additional species that should be removed (e.g., blue runner).

The South Atlantic Council concluded **Preferred Alternative 2** best meets the purpose of allowing fishermen who derive substantial benefits from the harvest of blue runner to continue to utilize the resource while ensuring that appropriate management is in place. **Preferred Alternative 2** 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.

Chapter 6. Cumulative Effects

As directed by the Council on Environmental Quality (CEQ) regulations, federal agencies are mandated to assess not only the indirect and direct impacts, but the cumulative impacts of proposed actions as well. The CEQ regulations define a cumulative impact as “...*the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time*” (40 C.F.R. §1508.7). Cumulative effects can either be additive or synergistic. A synergistic effect is when the combined effects are greater than the sum of the individual effects.

Various approaches for assessing cumulative effects have been identified, including checklists, matrices, indices, and detailed models (MacDonald 2000). The Council on Environmental Quality (CEQ) offers guidance on conducting a Cumulative Effects Analysis (CEA) in a report titled “Considering Cumulative Effects under the National Environmental Policy Act” (CEQ 1997). The report outlines 11 items for consideration in drafting a CEA for a proposed action.

1. Identify the significant cumulative effects issues associated with the proposed action and define the assessment goals.
2. Establish the geographic scope of the analysis.
3. Establish the timeframe for the analysis.
4. Identify the other actions affecting the resources, ecosystems, and human communities of concern.
5. Characterize the resources, ecosystems, and human communities identified in scoping in terms of their response to change and capacity to withstand stress.
6. Characterize the stresses affecting these resources, ecosystems, and human communities and their relation to regulatory thresholds.
7. Define a baseline condition for the resources, ecosystems, and human communities.
8. Identify the important cause-and-effect relationships between human activities and resources, ecosystems, and human communities.
9. Determine the magnitude and significance of cumulative effects.
10. Modify or add alternatives to avoid, minimize, or mitigate significant cumulative effects.
11. Monitor the cumulative effects of the selected alternative and adapt management.

This CEA for the biophysical environment will follow a modified version of the 11 steps. Cumulative effects for the socio-economic environment will be analyzed separately.

6.1 Biological

1. Identify the significant cumulative effects issues associated with the proposed action and define the assessment goals.

The Council on Environmental Quality (CEQ) cumulative effects guidance states that this step is done through three activities. The three activities and the location in the document are as follows:

- I. The direct and indirect effects of the proposed actions (**Chapter 4**);
- II. Which resources, ecosystems, and human communities are affected (**Chapter 3**); and
- III. Which effects are important from a cumulative effects perspective (**information revealed in this Cumulative Effects Analysis (CEA)**)

2. Establish the geographic scope of the analysis.

The immediate impact area would be the federal 200-mile limit of the Atlantic off the coasts of North Carolina, South Carolina, Georgia, and east Florida to Key West, which is also the South Atlantic Fishery Management Council's (South Atlantic Council) area of jurisdiction. In light of the available information, the extent of the boundaries would depend upon the degree of fish immigration/emigration and larval transport, whichever has the greatest geographical range. The ranges of affected species are described in **Section 3.2**. **Section 3.1.1** describes the essential fish habitat designation and requirements for species affected by this amendment.

3. Establish the timeframe for the analysis.

Establishing a timeframe for the CEA is important when the past, present, and reasonably foreseeable future actions are discussed. It would be advantageous to go back to a time when there was a natural, or somewhat modified (but ecologically sustainable) condition. However, data collection for many fisheries began when species were already fully exploited. Therefore, the timeframe for analyses should be initiated when data collection began for the various fisheries. In determining how far into the future to analyze cumulative effects, the length of the effects will depend on the species and the alternatives chosen. Long-term evaluation is needed to determine if management measures have the intended effect of improving stock status.

4. Identify the other actions affecting the resources, ecosystems, and human communities of concern (the cumulative effects to the human communities are discussed in Section 4).

Listed 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.

I. Fishery-related actions affecting the species addressed in this amendment

A. Past

Amendment 16 (SAFMC 2009a) prohibited the captain and crew of federally permitted for-hire vessels from retaining gag, black grouper, red grouper, scamp, red hind, rock hind, coney, graysby, yellowfin grouper, yellowmouth grouper, yellowedge grouper, snowy grouper, misty grouper, vermilion snapper, sand tilefish, blueline tilefish, and golden tilefish to help end overfishing of gag and vermilion snapper.

The Comprehensive Annual Catch Limit (ACL) Amendment (SAFMC 2011c) includes ACLs and accountability measures (AMs) for federally managed species not undergoing overfishing in four fishery management plans (FMPs) (Snapper Grouper, Dolphin Wahoo, Golden Crab, and *Sargassum*). Actions contained within the Comprehensive ACL Amendment include: (1) Removal of species from the snapper grouper fishery management unit; (2) designation of ecosystem component species; (3) allocations; (4) management measures to limit recreational and commercial sectors to their ACLs; (5) AMs; and (6) any necessary modifications to the range of regulations. The South Atlantic Council approved the Comprehensive ACL Amendment in September 2011. The final rule published in the *Federal Register* on March 16, 2012, and became effective on April 16, 2012.

B. Present

The Joint Generic Dealer Reporting Amendment will require that all dealers report landings information electronically on a weekly basis to improve the timeliness and accuracy of landings data. This amendment will apply to all FMPs with the exception of the Gulf of Mexico and South Atlantic Shrimp FMPs.

The South Atlantic Headboat Reporting Amendment is under development and would require that all federally-permitted headboats on the South Atlantic report their landings information electronically, and on a weekly basis in order to improve the timeliness and accuracy of harvest data.

C. Reasonably Foreseeable Future

At their September 2012 meeting, the South Atlantic Council requested development of a new regulatory amendment to allow for adjustment of allocations and ACLs based on the new landings information from the Marine Recreational Information Program. Regulatory Amendment 13 was developed to accomplish this. The amendment was approved for submission to the Secretary of Commerce by the South Atlantic Council at their December 2012 meeting, and the proposed rule to implement the amendment was published on March 21, 2013 (78 FR17336).

Regulatory Amendment 17 is currently under development and this amendment would modify existing or establish new marine protected areas to enhance protection for speckled hind and warsaw grouper as well as other snapper grouper species such as Nassau grouper.

II. Non-Council and other non-fishery related actions, including natural events affecting the species addressed in this amendment.

- A. Past**
- B. Present**
- C. Reasonably foreseeable future**

In terms of natural disturbances, it is difficult to determine the effect of non-Council and non-fishery related actions on stocks of snapper grouper species. Annual variability in natural conditions such as water temperature, currents, food availability, predator abundance, etc. can affect the abundance of young fish, which survive the egg and larval stages each year to become juveniles (i.e., recruitment). This natural variability in year class strength is difficult to predict as it is a function of many interactive and synergistic factors that cannot all be measured (Rothschild 1986). Furthermore, natural factors such as storms, red tide, cold water upwelling, etc. can affect the survival of juvenile and adult fishes; however, it is very difficult to quantify the magnitude of mortality these factors may have on a stock. Alteration of preferred habitats for snapper grouper species could affect survival of fish at any stage in their life cycles. However, estimates of the abundance of fish, which utilize any number of preferred habitats, as well as, determining the impact habitat alteration may have on snapper grouper species, is problematic.

Species such as Nassau grouper, which are known to form spawning aggregations can be especially vulnerable to targeted fishing pressure. Such natural behaviors are discussed in further detail in **Chapter 3** of this document, which is hereby incorporated by reference.

How global climate changes will affect the snapper grouper fishery is unclear. Climate change can impact marine ecosystems through ocean warming by increased thermal stratification, reduced upwelling, sea level rise, increases in wave height and frequency, loss of sea ice, and increased risk of diseases in marine biota. Decreases in surface ocean pH due to absorption of anthropogenic CO₂ emissions may impact a wide range of organisms and ecosystems, particularly organism that absorb calcium from surface waters, such as corals and crustaceans (IPCC 2007, and references therein).

The BP/Deepwater Horizon oil spill event, which occurred in the Gulf of Mexico on April 20, 2010, did not impact fisheries operating the South Atlantic. Oil from the spill site was not been detected in the South Atlantic region, and did not likely pose a threat to the South Atlantic snapper grouper species addressed in this amendment.

5. Characterize the resources, ecosystems, and human communities identified in scoping in terms of their response to change and capacity to withstand stress.

In terms of the biophysical environment, the resources/ecosystems identified in earlier steps of the CEA are the fish populations directly or indirectly affected by the regulations. This step should identify the trends, existing conditions, and the ability to withstand stresses of the environmental components.

The species most likely to be impacted by alternatives considered in this amendment are Nassau grouper and blue runner. Trends in the condition of these species are determined through the Southeast

Data, Assessment and Review (SEDAR) process. Stock status information for the species affected by this amendment is found in **Section 3.2** of this document.

6. Characterize the stresses affecting these resources, ecosystems, and human communities and their relation to regulatory thresholds.

This step is important in outlining the current and probable stress factors on snapper grouper species identified in the previous steps. The goal is to determine whether these species are approaching conditions where additional stresses could have an important cumulative effect beyond any current plan, regulatory, or sustainability threshold (CEQ 1997). Sustainability thresholds can be identified for some resources, which are levels of impact beyond which the resources cannot be sustained in a stable state. Other thresholds are established through numerical standards, qualitative standards, or management goals. The CEA should address whether thresholds could be exceeded because of the contribution of the proposed action to other cumulative activities affecting resources.

Fish populations

A complete discussion of fish populations including stock status may be found in **Section 3.2** of this document. Definitions of overfishing and overfished for snapper-grouper species affected by this amendment can be found in the most recent stock assessment sources, which may be found at <http://www.sefsc.noaa.gov/sedar/>.

Stock assessments take into account the past and current regulatory environment and establish sustainability thresholds based on how stocks respond to those management measures as well as biological and environmental factors affecting each species. Stock assessments and stock assessment updates are completed periodically dependent upon the amount and type of information available for the species and their commercial importance. Detailed discussions of the science and processes used to determine the stock status of assessed snapper grouper species is contained in the SEDAR stock assessment and assessment updates completed for snapper grouper species and are hereby incorporated by reference.

Climate change

Global climate changes could have significant effects on South Atlantic fisheries. However, the extent of these effects is not known at this time. Possible impacts include temperature changes in coastal and marine ecosystems that can influence organism metabolism and alter ecological processes such as productivity and species interactions; changes in precipitation patterns and a rise in sea level which could change the water balance of coastal ecosystems; altering patterns of wind and water circulation in the ocean environment; and influencing the productivity of critical coastal ecosystems such as wetlands, estuaries, and coral reefs (IPCC 2007; Kennedy et al. 2002).

It is unclear how climate change would affect snapper grouper species in the South Atlantic. 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 or may not significantly impact snapper grouper species in the future, but the level of impacts cannot be quantified at this time.

7. Define a baseline condition for the resources, ecosystems, and human communities.

The purpose of defining a baseline condition for the resource and ecosystems in the area of the proposed action is to establish a point of reference for evaluating the extent and significance of expected cumulative effects. The SEDAR assessments show trends in biomass, fishing mortality, fish weight, and fish length going back to the earliest periods of data collection. For some species such as snowy grouper, assessments reflect initial periods when the stock was above B_{MSY} and fishing mortality was fairly low. However, some species were heavily exploited or possibly overfished when data were first collected. As a result, the assessment must make an assumption of the biomass at the start of the assessment period thus modeling the baseline reference points for the species.

For a detailed discussion of the baseline conditions of Nassau grouper and blue runner, the reader is referred to **Section 3.2** of this amendment.

8. Identify the important cause-and-effect relationships between human activities and resources, ecosystems, and human communities.

Table 6.1.1. The cause and effect relationship of fishing and regulatory actions within the time period of the Cumulative Effects Analysis (CEA).

Time period/dates	Cause	Observed and/or Expected Effects
Pre-January 12, 1989	Habitat destruction, growth overfishing of vermilion snapper.	Damage to snapper grouper habitat, decreased yield per recruit of vermilion snapper.
January 1989	Trawl prohibition to harvest fish (SAFMC 1988).	Increase yield per recruit of vermilion snapper; eliminate trawl damage to live bottom habitat.
Pre-January 1, 1992	Overfishing of many snapper grouper species.	Spawning stock ratio of these species is estimated to be less than 30% indicating that they are overfished.
January 1992	<u>Prohibited gear</u> : fish traps south of Cape Canaveral, FL; entanglement nets; longline gear inside of 50 fathoms; powerheads and bangsticks in designated SMZs off SC. <u>Size/Bag limits</u> : 10" TL vermilion snapper (recreational only); 12" TL vermilion snapper (commercial only); 10 vermilion snapper/person/day; aggregate grouper bag limit of 5/person/day; and 20" TL gag, red, black, scamp, yellowfin, and yellowmouth grouper size limit (SAFMC 1991).	Reduce mortality of snapper grouper species.
Pre-June 27, 1994	Damage to <i>Oculina</i> habitat.	Noticeable decrease in numbers and species diversity in areas of <i>Oculina</i> off

Time period/dates	Cause	Observed and/or Expected Effects
		FL
July 1994	Prohibition of fishing for and retention of snapper grouper species (HAPC renamed OECA; SAFMC 1993)	Initiated the recovery of snapper grouper species in OECA.
1992-1999	Declining trends in biomass and overfishing continue for a number of snapper grouper species including golden tilefish.	Spawning potential ratio for golden tilefish is less than 30% indicating that they are overfished.
July 1994	Commercial quota for golden tilefish; commercial trip limits for golden tilefish; include golden tilefish in grouper recreational aggregate bag limits.	
February 24, 1999	All S-G without a bag limit: aggregate recreational bag limit 20 fish/person/day, excluding tomtate and blue runners. Vessels with longline gear aboard may only possess snowy, Warsaw, yellowedge, and misty grouper, and golden, blue line and sand tilefish.	
Effective October 23, 2006	Snapper grouper FMP Amendment 13C (SAFMC 2006)	Commercial vermilion snapper quota set at 1.1 million lbs gw; recreational vermilion snapper size limit increased to 12" TL to prevent vermilion snapper overfishing.
Effective February 12, 2009	Snapper grouper FMP Amendment 14 (SAFMC 2007)	Use marine protected areas (MPAs) as a management tool to promote the optimum size, age, and genetic structure of slow growing, long-lived deepwater snapper grouper species (e.g., speckled hind, snowy grouper, warsaw grouper, yellowedge grouper, misty grouper, golden tilefish, blue line tilefish, and sand tilefish). Gag and vermilion snapper occur in some of these areas.
Effective March 20, 2008	Snapper grouper FMP Amendment 15A (SAFMC 2008a)	Establish rebuilding plans and SFA parameters for snowy grouper, black sea bass, and red porgy.
Effective Dec 16, 2009 to Feb 16, 2010.	Snapper grouper FMP Amendment 15B (SAFMC 2008b)	End double counting in the commercial and recreational reporting systems by prohibiting the sale of bag-limit caught snapper grouper, and minimize impacts on sea turtles and smalltooth sawfish.
Effective July 29, 2009	Snapper grouper FMP Amendment 16 (SAFMC 2009a)	Protect spawning aggregations and snapper grouper in spawning condition by increasing the length of the spawning season closure, decrease discard mortality by requiring the use of dehooking tools, reduce overall

Time period/dates	Cause	Observed and/or Expected Effects
		harvest of gag and vermilion snapper to end overfishing.
Effective January 4, 2010	Red Snapper Interim Rule	Prohibit commercial and recreational harvest of red snapper from January 4, 2010, to June 2, 2010 with a possible 186-day extension. Reduce overfishing of red snapper while long-term measures to end overfishing are addressed in Amendment 17A.
Effective June 3, 2010, to Dec 5, 2010	Extension of Red Snapper Interim Rule	Extended the prohibition of red snapper to reduce overfishing of red snapper while long-term measures to end overfishing are addressed in Amendment 17A.
Effective December 4, 2010	Snapper Grouper FMP Amendment 17A (SAFMC 2010a).	Specified SFA parameters for red snapper; ACLs and ACTs; management measures to limit recreational and commercial sectors to their ACTs; accountability measures. Establish rebuilding plan for red snapper. Large snapper grouper area closure inn EEZ of NE Florida. Emergency rule delayed the effective date of the snapper grouper closure.
Effective January 31, 2011	Snapper Grouper Amendment 17B (SAFMC 2010b)	Specified ACLs and ACTs; management measures to limit recreational and commercial sectors to their ACTs; AMs, for species undergoing overfishing. Established a harvest prohibition of six snapper grouper species in depths greater than 240 feet.
Effective June 1, 2011	Regulatory Amendment 10 (SAFMC 2010c)	Removed snapper grouper area closure approved in Amendment 17A.
Effective July 15, 2011	Regulatory Amendment 9 (SAFMC 2011a)	Harvest management measures for black sea bass; commercial trip limits for gag, vermilion and greater amberjack
Effective May 10, 2012	Regulatory Amendment 11 (SAFMC 2011b)	Removed the harvest prohibition of six deepwater snapper grouper species implemented in Amendment 17B.
Effective April 16, 2012	Comprehensive ACL Amendment (SAFMC 2011c)	ACLs ACTs, and AMs for species not experiencing overfishing; accountability measures; an action to remove species from the fishery management unit as appropriate; and management measures to limit recreational and commercial sectors to their ACTs.

Time period/dates	Cause	Observed and/or Expected Effects
Effective July 11, 2012	Amendment 24 (Red Grouper) (SAFMC 2011d)	Established a rebuilding plan for red grouper, specified ABC, and established ACL, ACT and revised AMs for the commercial and recreational sectors.
Effective July 1, 2012	Amendment 18A (SAFMC 2012a)	Established an endorsement program for black sea bass commercial fishery; established a trip limit; specified requirements for deployment and retrieval of pots; made improvements to data reporting for commercial and for-hire sectors
Effective January 7, 2013	Amendment 18A Transferability Amendment	Reconsidered action to allow for transfer of black sea bass pot endorsements that was disapproved in Amendment 18A.
Effective October 26, 2012	Amendment 20A (Wreckfish) (SAFMC 2012b)	Redistributed inactive wreckfish shares.
Effective October 9, 2012	Regulatory Amendment 12 (SAFMC 2012c)	Adjusted the golden tilefish ACL based on the results of a new stock assessment and modified the recreational golden tilefish AM.
Effective May 23, 2013	Snapper Grouper Amendment 18B (under review)	Establish a commercial longline endorsement program for golden tilefish; establish an appeals process; allocate the commercial ACL by gear; establish trip limit for the hook and line sector.
Target 2013	Snapper Grouper Amendment 22 (under development)	Develop a recreational tag program for red snapper and deepwater species (snowy grouper, golden tilefish and wreckfish) in the South Atlantic.
Target 2013	Regulatory Amendment 14 (under development)	Modify management measures for greater amberjack, gray triggerfish, hogfish, black sea bass, grouper, and vermilion snapper.
Target 2013	Regulatory Amendment 13 (under review)	Adjust ACLs and allocations for unassessed snapper grouper species with MRIP recreational estimates.
Target 2013	Regulatory Amendment 15 (approved by South Atlantic Council)	Specify adjusted ABC, ACLs, ACTs for yellowtail snapper based on the latest assessment; consider changes in the yellowtail fishing years (comm. and rec.); modify the gag AM that closes shallow water grouper when the gag ACL is met.
Target 2013	Regulatory Amendment 16 (approved by the South Atlantic Council)	Establish new management measures for golden tilefish.

Time period/dates	Cause	Observed and/or Expected Effects
Target 2014	Regulatory Amendment 17 (under development)	Modify existing or establish new marine protected areas to enhance protection for speckled hind and warsaw grouper as well as other snapper grouper species.
Target 2013	Regulatory Amendment 18 (under review)	Adjust ACLs for vermilion snapper and red porgy based on results from updated assessments.
Target 2013	Snapper Grouper Amendment 27 (under development)	Establish the SAFMC as the managing entity Nassau grouper in the Southeast U.S., modify the snapper grouper framework; modify management measures for blue runner.
Target 2013	Snapper Grouper Amendment 28 (under review)	Modify red snapper management measures, including the establishment of a process to determine future annual catch limits and fishing seasons.
Target 2013	Generic For-Hire Amendment (under review)	Require electronic reporting for headboats, and increase reporting frequency.

9. Determine the magnitude and significance of cumulative effects.

The actions contained in Amendment 27 in combination with actions that have been implemented in the past, or will be implemented in the future, are not expected to result in any significant cumulative impacts. Extending the management jurisdiction of Nassau grouper for the South Atlantic Council into Gulf of Mexico waters is an administrative action that will not change the current prohibition on harvest of Nassau grouper. Modifying regulations that prohibit crew members of for-hire vessels from retaining bag limit quantities of some snapper grouper species, and allowing an additional crew member onboard dual-permitted vessels are necessary provisions that would improve regulatory consistency across Council jurisdictions without accruing significant positive or adverse cumulative impacts.

The proposed actions would not adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places as these are not in the South Atlantic Exclusive Economic Zone (EEZ). This action is not likely to result in direct, indirect, or cumulative effects to unique areas, such as significant scientific cultural, or historical resources, park land, prime farmlands, wetlands, wild and scenic rivers or ecologically critical areas as the proposed action is not expected to substantially increase fishing effort or the spatial and/or temporal distribution of current fishing effort within the South Atlantic region. The U.S. Monitor, Gray's Reef, and Florida Keys National Marine Sanctuaries are within the boundaries of the South Atlantic EEZ. The proposed actions are not likely to cause loss or destruction of these national marine sanctuaries because the actions are not expected to result in appreciable changes to current fishing practices.

10. Modify or add alternatives to avoid, minimize, or mitigate significant cumulative effects.

The cumulative effects on the biophysical environment are expected to be negligible. Avoidance, minimization, and mitigation are not applicable.

11. Monitor the cumulative effects of the selected alternative and adopt management.

The effects of the proposed action are, and will continue to be, monitored through collection of data by NMFS, states, stock assessments and stock assessment updates, life history studies, and other scientific observations.

6.2 Socioeconomic Cumulative Impacts

A description of the human environment, including a description of commercial and recreational fisheries for Nassau grouper and blue runner, and associated key fishing communities, is contained in **Chapter 3**. A description of the history of management of the snapper grouper fishery is contained in **Appendix D**.

Participation in and the economic performance of the fisheries addressed in this amendment have been affected by a combination of regulatory, biological, social, and external economic factors. Regulatory measures have obviously affected the quantity and composition of harvests of species addressed in this document, through the various size limits, seasonal restrictions, trip or bag limits, and quotas. For the snapper grouper fishery, gear restrictions, notably fish trap and longline restrictions, have also affected harvests and economic performance. The limited access program implemented in 1998/1999 substantially affected the number of participants in the snapper grouper fishery. Entry into the snapper grouper commercial fishery requires access to additional capital and two available permits to purchase (due to the passive reduction that requires two permits eliminated for each new permit), which may limit opportunities for new entrants.

Biological forces that either motivate certain regulations or simply influence the natural variability in fish stocks have likely played a role in determining the changing composition of the sectors addressed by this amendment. Additional factors, such as changing career or lifestyle preferences, stagnant to declining prices due to imports, increased operating costs (gas, ice, insurance, dockage fees, etc.), and increased waterfront/coastal value leading to development pressure for other than fishery uses have impacted both the commercial and recreational fishing sectors.

In general, the regulatory environment for all fisheries has become progressively more complex and burdensome, increasing, in tandem with other adverse influences, the pressure on economic losses, business failure, occupational changes, and associated adverse pressures on associated families, communities, and industries. Some reverse of this trend is possible and expected through management. However, certain pressures would remain, such as total effort and total harvest considerations, increasing input costs, import induced price pressure, and competition for coastal access.

A description of the human environment, including a description of the snapper grouper fishery, as well as associated key fishing communities is contained in Section 3 and incorporated herein by reference. A description of the history of management of the fisheries addressed in this document is contained in **Appendix D** and is incorporated herein by reference. A detailed description of the expected social and economic impacts of the actions in this document is contained elsewhere in Section 4 and is incorporated herein by reference.

The proposed actions in this amendment are part of the larger management program for snapper grouper, with primary management working through annual catch limits (ACLs) and accountability measures (AMs). The actions in the Comprehensive ACL Amendment (SAFMC 2011c) established ACLs and AMs for species that are not experiencing overfishing. Actions in the Comprehensive ACL Amendment, however, are expected to have different effects in different areas. At any rate, the actions contained in the Comprehensive ACL Amendment are expected to prevent overfishing from occurring and to support the achievement of OY in the respective fisheries over time, resulting in social and economic gains. In addition to the species included in the Comprehensive ACL Amendment, ACLs, AMs, and management measures for additional species have been developed in Snapper Grouper Amendments 17A and 17B (SAFMC 2010a; SAFMC 2010b).

Additional actions have been implemented or are in the process of being implemented for snapper grouper species in Amendment 24 (red grouper rebuilding plan) (SAFMC 2011d) and Regulatory Amendment 9 (lower bag limit from 5 to 10 black sea bass per day) (SAFMC 2011a) that could contribute to the cumulative impact on the for-hire captain and crew, customers, and associated businesses and communities. Additionally, several potential new snapper grouper amendments are being considered that will have some effects on the for-hire sector, including Regulatory Amendment 14 (changes to management measures for gray triggerfish, hogfish, black sea bass, greater amberjack, and vermilion snapper) and Regulatory Amendment 17 (MPAs to protect warsaw grouper and speckled hind). Other amendments are under development but those listed above are expected to have some impact on the commercial and for-hire fleet of the snapper grouper fishery.

The cumulative social and economic effects of past, present, and future amendments may be described as limiting fishing opportunities in the short-term. However, these amendments are expected to improve prospects for sustained participation in the respective sectors over time and the proposed actions in this amendment are expected to result in minimal negative impact along with some important benefits to the commercial and for-hire fishing fleets, fishing communities and associated businesses, and private recreational anglers. Specifically, the social and economic benefits expected under the following actions would likely contribute to sustainable harvest and participation: the proposed increase in allowable crew size to four individuals, which will allow safe and profitable commercial dive trips on the 148 vessels that hold both a federal commercial snapper grouper permit (Unlimited or 225-Pound) and a federal charter snapper grouper permit (dual-permitted vessels); the opportunity for captain and crew to retain catch on for-hire trips is expected to be beneficial to for-hire captain and crew by providing fish for personal consumption and reduce waste on for-hire trips; and the proposed removal of blue runner from the Snapper Grouper FMU, which is expected to benefit fishermen without Snapper Grouper permits who harvest blue runner with gillnets because it would not require an additional permit and would allow harvest with gillnet.

Chapter 7. List of Preparers

Table 7.1.1 List of preparers of the document.

Name	Organization	Title
Anik Clemens	NMFS/SF	Technical Writer Editor
Myra Brouwer	SAFMC	IPT Lead/Fishery Biologist
Christina Package	NMFS/SF	Social Scientist
Tony Lamberte	NMFS/SF	Economist
Kate Michie	NMFS/SF	IPT Lead/Fishery Biologist
Jack McGovern	NMFS/SF	Fishery Biologist
Larry Perruso	NMFS/SEFSC	Economist
Brian Chevront	SAFMC	Economist
Kari MacLauchlin	SAFMC	Social Scientist
Adam Brame	NMFS/PR	Fisheries Biologist
Nick Farmer	NMFS/SF	Fishery Biologist
Neil Baertlein	SEFSC	Fishery Biologist
Mike Errigo	SAFMC	Fishery Scientist
Gregg Waugh	SAFMC	Deputy Executive Director

NMFS = National Marine Fisheries Service, SAFMC = South Atlantic Fishery Management Council, SF = Sustainable Fisheries Division, PR = Protected Resources Division, SERO = Southeast Regional Office, HC = Habitat Conservation Division, GC = General Counsel, Eco=Economics

Table 7.1.2. List of interdisciplinary plan team members for the document.

Name	Organization	Title
Myra Brouwer	SAFMC	IPT Lead/Fishery Biologist
Kate Michie	NMFS/SF	IPT Lead/Fishery Biologist
Anik Clemens	NMFS/SF	Technical Writer Editor
Scott Crosson	NMFS/SEFSC	Economist
David Dale	NMFS/HC	EFH Specialist
Rick DeVictor	NMFS/SF	Fishery Biologist
Otha Easley	NMFS/LE	Supervisory Criminal Investigator
Karla Gore	NMFS/SF	Fishery Biologist
Stephen Holiman	NMFS/SF	Economist
Mike Jepson	NMFS/SF	Social Scientist
David Keys	NMFS/SER	Regional NEPA Coordinator
Tony Lamberte	NMFS/SF	Economist
Jennifer Lee	NMFS/PR	Fishery Biologist (Protected Resources)
Jack McGovern	NMFS/SF	Fishery Biologist
Brian Chevront	SAFMC	Economist
Kari MacLauchlin	SAFMC	Social Scientist
Anna Martin	SAFMC	Fishery Scientist
Roger Pugliese	SAFMC	Sr. Fishery Biologist
Nikhil Mehta	NMFS/SF	Fishery Biologist
Monica Smit-Brunello	NOAA/GC	Attorney
Andy Strelcheck	NMFS/SF	Fishery Biologist
Mike Larkin	NMFS/SF	Fishery Biologist
Gregg Waugh	SAFMC	Deputy Executive Director
Erik Williams	NMFS/SEFSC	Supervisory Research Fish Biologist

NMFS = National Marine Fisheries Service, SAFMC = South Atlantic Fishery Management Council, SF = Sustainable Fisheries Division, PR = Protected Resources Division, SERO = Southeast Regional Office, HC = Habitat Conservation Division, GC = General Counsel, Eco=Economics

Chapter 8. Agencies and Persons Consulted

Responsible Agency

NMFS, Southeast Region
263 13th Avenue South
St. Petersburg, Florida 33701
(727) 824-5301 (TEL)
(727) 824-5320 (FAX)

List of Agencies, Organizations, and Persons Consulted

SAFMC Law Enforcement Advisory Panel
SAFMC Snapper Grouper Advisory Panel
SAFMC Scientific and Statistical Committee
SAFMC Information and Education 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

Chapter 9. References

- Ault, J.S., J.A. Bohnsack, and G.A. Meester. 1998. A retrospective (1979-96) multispecies assessment of coral reef stocks in the Florida Keys. *Fishery Bulletin* 96:395-414.
- Carter, D. pers. comm., 2009. Response to the 7/10/09 Data Request for Amendment 17A to the Snapper Grouper Fishery Management Plans of the South Atlantic.
- Carter, D. and C. Liese. 2012. The Economic Value of Catching and Keeping or Releasing Saltwater Sport Fish in the Southeast USA. *North American Journal of Fisheries Management*, 32:613-625.
- CEQ (Council on Environmental Quality). 1997. Considering Cumulative Effects Under the National Environmental Policy Act. U.S. Council on Environmental Quality, Washington, DC. 64 pp.
- Coleman, F.C., C.C. Koenig, G.R. Huntsman, J.A. Musick, A.M. Eklund, J.C. McGovern, R.W. Chapman, G.R. Sedberry, and C.B. Grimes. 2000. Long-lived reef fishes: The grouper-snapper complex. *Fisheries* 25(3): 14-21.
- Dumas, C.F, J.C Whitehead, J.E. Landry, and J.H. Herstine. 2009. Economic Impacts and Recreational Value of the North Carolina For-hire Fishing Fleet. North Carolina Sea Grant FRG Grant Report 07-FEG-05.
- Eggleston, D. B., Etherington, L.L., and W. E. Elis. 1998. Organism response to habitat patchiness: species and habitat-dependent recruitment of decapod crustaceans. *Journal of Experimental Marine Biology and Ecology* 223:111-132.
- EPA (Environmental Protection Agency). 1999. EPA Region 4: Interim Policy to Identify and Address Potential Environmental Justice Areas. EPA-904-R-99-004.
- Erdman, D.S. 1976. Spawning patterns of fishes from the northeastern Caribbean. *Agric. Fish. Contrib. Puerto Rico Department of Agriculture* Vol. 8.
- GMFMC (Gulf of Mexico Fishery Management Council). 1984. Reef Fish Fishery Management Plan. Gulf of Mexico Fishery Management Council, 2203 N Lois Avenue, Suite 1100, Tampa, Florida 33607.
- GMFMC (Gulf of Mexico Fishery Management Council). 2006. Amendment 18A to the Fishery Management Plan for the Gulf Reef Fish Fishery of the Gulf of Mexico. Gulf of Mexico Fishery Management Council. 2203 N. Lois Avenue; Suite 1100; Tampa, Florida 33607.
- GMFMC (Gulf of Mexico Fishery Management Council). 2011. Generic Annual Catch Limit (ACL) Amendment. Gulf of Mexico Fishery Management Council, 2203 N Lois Avenue, Suite 1100, Tampa, Florida 33607.

GMFMC (Gulf of Mexico Fishery Management Council). 2012. Amendment 34 to the Fishery Management Plan for the Gulf Reef Fish Fishery of the Gulf of Mexico. Gulf of Mexico Fishery Management Council. 2203 N. Lois Avenue; Suite 1100; Tampa, Florida 33607.

Heemstra, P.C. and J.E. Randall. 1993. FAO species catalogue. Vol. 16. Groupers of the world. (Family Serranidae, Subfamily Epinephelinae). An annotated and illustrated catalogue of the grouper, rockcod, hind, coral grouper and lyretail species known to date. FAO Fish. Synops. 16(125).

Holland, S. M., A. J. Fedler, and J. W. Milon. 1999. The Operation and Economics of the Charter and Headboat Fleets of the Eastern Gulf of Mexico and South Atlantic Coasts. University of Florida Office of research, Technology, and Graduate Education. Report prepared for the National Marine Fisheries Service. Grant Number NA77FF0553.

IPCC (Intergovernmental Panel on Climate Change). 2007. Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, Pachauri, R.K and Reisinger, A. (eds.)]. IPCC, Geneva, Switzerland, 104 pp.

Kennedy, V. S., R. R. Twilley, J. A. Kleypas, J. H. Cowan, Jr., S. R. Hare. 2002. Coastal and Marine Ecosystems & Global Climate Change: Potential Effects on U.S. Resources. Pew Center on Global Climate Change. 52 p.

MacDonald, L.H. 2000. Evaluating and managing cumulative effects: process and constraints. *Environmental Management* 26(3): 299-315.

NMFS (National Marine Fisheries Service). 2006. Endangered Species Act section 7 consultation on the Continued Authorization of Snapper-Grouper Fishing under the South Atlantic Snapper-Grouper Fishery Management Plan (RFFMP) and Proposed Amendment 13C. Biological Opinion. June 7.

Rielinger, D.M. 1999. Spawning Aggregations in the Gulf of Mexico, South Atlantic and Caribbean: a Source Document for Fisheries Management.

Rothschild, B.J. 1986. Dynamics of Marine Fish Populations. Harvard University Press. Cambridge, Massachusetts. 277pp.

Sadovy, Y., Colin, P.L. and M. Domeier. 1994. Aggregation and spawning of the tiger grouper, *Mycteroperca tigris* (Pisces: Serranidae). *Copeia* 1994(2):511–516.

Sadovy, Y. and P. L. Colin. 1995. Sexual development and sexuality in the Nassau grouper. *Journal of Fish Biology*, 46: 961-976.

Sadovy, Y.J. and A.M. Eklund. 1999. Synopsis of biological information on *Epinephelus striatus* (Bloch 1972), the Nassau grouper, and *Epinephelus itajara* (Lichtenstein 1822), the jewfish. NOAA NMFS Technical Report 146. 65 p.

SAFMC (South Atlantic Fishery Management Council). 1983. Fishery Management Plan, Regulatory Impact Review and Final Environmental Impact Statement for the Snapper Grouper Fishery of the South Atlantic Snapper Grouper
Amendment 27

Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Circle, Suite 306, Charleston, South Carolina, 29407-4699.

SAFMC (South Atlantic Fishery Management Council). 1988. Amendment 1 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region with Final Environmental Assessment and Regulatory Impact Review. South Atlantic Fishery Management Council, 4055 Faber Place Drive, Ste 201, Charleston, S.C. 29405. 63 pp. with appendices.

SAFMC (South Atlantic Fishery Management Council). 1991. Amendment 4 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region with Final Environmental Assessment, Initial Regulatory Flexibility Analysis, and Regulatory Impact Review. South Atlantic Fishery Management Council, 4055 Faber Place Drive, Ste 201, Charleston, S.C. 29405. 243 pp. with appendices.

SAFMC (South Atlantic Fishery Management Council). 1993. Amendment 6 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region with Final Environmental Assessment, Initial Regulatory Flexibility Analysis, and Regulatory Impact Review. South Atlantic Fishery Management Council, 4055 Faber Place Drive, Ste 201, Charleston, S.C. 29405. 161 pp. with appendices.

SAFMC (South Atlantic Fishery Management Council). 1994a. Amendment Number 7 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Ste 306, Charleston, S.C. 29407-4699.

SAFMC (South Atlantic Fishery Management Council). 1997. Amendment Number 8, Regulatory Impact Review, Social Impact Assessment, Initial Regulatory Flexibility Analysis and Supplemental Environmental Impact Statement for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Ste 306, Charleston, S.C. 29407-4699. 124 pp.

SAFMC (South Atlantic Fishery Management Council). 1998a. Amendment Number 9 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Ste 306, Charleston, S.C. 29407-4699.

SAFMC (South Atlantic Fishery Management Council). 1998b. Comprehensive Amendment Addressing Sustainable Fishery Act Definitions and Other Required Provisions in Fishery Management Plans of the South Atlantic Region (Amendment 11 to the Snapper Grouper FMP). South Atlantic Fishery Management Council, 1 Southpark Cir., Suite 306, Charleston, S.C. 29407-4699. 151 pp.

SAFMC (South Atlantic Fishery Management Council). 1998c. Habitat Plan for the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Ste 306, Charleston, S.C. 29407-4699.

SAFMC (South Atlantic Fishery Management Council). 1998d. Comprehensive Amendment Addressing Essential Fish Habitat in Fishery Management Plans of the South Atlantic Region (Amendment 10 to the Snapper Grouper Fishery Management Plan). South Atlantic Fishery Management Council, 1 Southpark Cir., Suite 306, Charleston, S.C. 29407-4699.

SAFMC (South Atlantic Fishery Management Council). 2000. Amendment Number 12, Final Environmental Impact Statement, Initial Regulatory Flexibility Analysis/Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Ste 306, Charleston, S.C. 29407-4699.

SAFMC (South Atlantic Fishery Management Council). 2006. Amendment 13C to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region with Final Environmental Impact Statement, Biological Assessment, Initial Regulatory Flexibility Analysis, Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement. South Atlantic Fishery Management Council, 4055 Faber Place Drive, Ste 201, Charleston, S.C. 29405. 631 pp. with appendices.

SAFMC (South Atlantic Fishery Management Council). 2007. Amendment 14 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region with Final Environmental Impact Statement, Biological Assessment, Initial Regulatory Flexibility Analysis, Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement. South Atlantic Fishery Management Council, 4055 Faber Place Drive, Ste 201, Charleston, S.C. 29405. 601 pp. with appendices.

SAFMC (South Atlantic Fishery Management Council). 2008a. Amendment 15A to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region with Final Environmental Impact Statement, Biological Assessment, Initial Regulatory Flexibility Analysis, Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement. South Atlantic Fishery Management Council, 4055 Faber Place Drive, Ste 201, Charleston, S.C. 29405. 325 pp. with appendices.

SAFMC (South Atlantic Fishery Management Council). 2008b. Amendment 15B to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region with Final Environmental Impact Statement, Biological Assessment, Initial Regulatory Flexibility Analysis, Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement. South Atlantic Fishery Management Council, 4055 Faber Place Drive, Ste 201, Charleston, S.C. 29405. 324 pp. plus appendices.

SAFMC (South Atlantic Fishery Management Council). 2009a. Amendment 16 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region with Final Environmental Impact Statement, Initial Regulatory Flexibility Analysis, Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement. South Atlantic Fishery Management Council, 4055 Faber Place Drive, Ste 201, Charleston, S.C. 29405. 608 pp. plus appendices.

SAFMC (South Atlantic Fishery Management Council). 2009b. Fishery Ecosystem Plan for the South Atlantic Region. South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405.

SAFMC (South Atlantic Fishery Management Council). 2010a. Amendment 17A to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region with Final Environmental Assessment, Initial Regulatory Flexibility Analysis, Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement. South Atlantic Fishery Management Council, 4055

Faber Place Drive, Ste 201, Charleston, S.C. 29405., 385 pp. with appendices.

SAFMC (South Atlantic Fishery Management Council). 2010b. Amendment 17B to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region with Final Environmental Assessment, Initial Regulatory Flexibility Analysis, Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement. South Atlantic Fishery Management Council, 4055 Faber Place Drive, Ste 201, Charleston, S.C. 29405. 406 pp. plus appendices.

SAFMC (South Atlantic Fishery Management Council). 2010c. Regulatory Amendment 10 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region with Final Environmental Assessment, Initial Regulatory Flexibility Analysis, Regulatory Impact Review, and Social Impact Assessment. South Atlantic Fishery Management Council, 4055 Faber Place Drive, Ste 201, Charleston, S.C. 29405. 101 pp. with appendices.

SAFMC (South Atlantic Fishery Management Council). 2011a. Regulatory Amendment 9 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405.

SAFMC (South Atlantic Fishery Management Council). 2011b. Regulatory Amendment 11 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region with Final Environmental Assessment, Regulatory Flexibility Analysis, Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement. South Atlantic Fishery Management Council, 4055 Faber Place Drive, Ste 201, Charleston, S.C. 29405. 86 pp. plus appendices.

SAFMC (South Atlantic Fishery Management Council). 2011c. Comprehensive Annual Catch Limit Amendment for the South Atlantic Region with Final Environmental Impact Statement, Regulatory Flexibility Analysis, Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement. South Atlantic Fishery Management Council, 4055 Faber Place Drive, Ste 201, Charleston, S.C. 29405. 755 pp. plus appendices.

SAFMC (South Atlantic Fishery Management Council). 2011d. Amendment 24 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region with Final Environmental Assessment, Initial Regulatory Flexibility Analysis, Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement. South Atlantic Fishery Management Council, 4055 Faber Place Drive, Ste 201, Charleston, S.C. 29405. 256 pp. plus appendices.

SAFMC (South Atlantic Fishery Management Council). 2011e. Comprehensive Ecosystem Based Amendment 2, Final Environmental Assessment, Regulatory Flexibility Analysis/Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. (Amendment 23 to the Snapper Grouper FMP). South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405.

SAFMC (South Atlantic Fishery Management Council). 2012a. Amendment 18A to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region with Final Environmental Impact Statement, Initial Regulatory Flexibility Analysis, Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement. South Atlantic Fishery Management Council, 4055 Faber Place Drive, Ste 201, Charleston, S.C. 29405. 292 pp. plus appendices.

SAFMC (South Atlantic Fishery Management Council). 2012b. Amendment 20A to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region with Final Environmental Assessment, Regulatory Flexibility Analysis, Regulatory Impact Review, and Fishery Impact Statement. South Atlantic Fishery Management Council, 4055 Faber Place Drive, Ste 201, Charleston, S.C. 29405. 128 pp. plus appendices.

SAFMC (South Atlantic Fishery Management Council). 2012c. Regulatory Amendment 12 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region with Final Environmental Assessment, Initial Regulatory Flexibility Analysis, Regulatory Impact Review, and Fishery Impact Statement. South Atlantic Fishery Management Council, 4055 Faber Place Drive, Ste 201, Charleston, S.C. 29405. 106 pp. plus appendices.

SEDAR (Southeast Data, Assessment and Review). 2006. SEDAR 10: South Atlantic Gag Grouper. Available at: http://www.sefsc.noaa.gov/sedar/Sedar_Workshops.jsp?WorkshopNum=10

SEDAR (Southeast Data, Assessment and Review). 2012. SEDAR 17: Vermilion Snapper Update. Available at: http://www.sefsc.noaa.gov/sedar/Sedar_Workshops.jsp?WorkshopNum=17

Smith-Vaniz, W. F., J. C. Quéro, and M. Desoutter. 1990. Carangidae. In: Check-list of the fishes of the eastern tropical Atlantic (CLOFETA), vol. 2 (Quéro, J. C., J. C. Hureau, C. Karrer, A. Post, and L. Saldanha, eds.), p. 729–755. UNESCO, Paris.

Stevenson, D.E., Chapman, R.W., and Sedberry, G.R. 1998. Stock identification in Nassau grouper, *Epinephelus straitus*, using microsatellite DNA analysis. Proceedings of the 50th Gulf and Caribbean Fisheries Institute.

Thompson, R. and J.L. Munro. 1974. The biology, ecology and bionomics of Caribbean reef fishes: Carangidae (jacks). Zoology Dep., Univ. West Indies, Kingston, Jamaica Res. Rep. 3.

USCG (United States Coast Guard). 2009. Diving Operations Guidelines. Available at: <http://www.asse.org/practicespecialties/military/docs/COMDTINST%20M3150.1C.pdf>

Wenner, E. L., G. F. Ulrich, and J. B. Wise. 1987. Exploration for the golden crab, *Geryon fenneri*, in the south Atlantic Bight: distribution, population structure, and gear assessment. Fishery Bulletin 85: 547-560.

Appendix A. Considered But Rejected Alternatives

Action 1. Modify management jurisdiction for yellowtail snapper and mutton snapper in the southeast region

Alternative 1 (No Action). Retain the existing management authority of the South Atlantic Fishery Management Council (South Atlantic Council) and the Gulf of Mexico Fishery Management Council (Gulf of Mexico Council) to manage yellowtail snapper and mutton snapper in their respective jurisdictions.

Alternative 2. Designate the South Atlantic Council as the responsible Council that will manage yellowtail snapper and mutton snapper in Gulf of Mexico and South Atlantic waters.

Discussion: This action was removed from Amendment 27 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (Amendment 27) because, in October 2012, the Gulf of Mexico Fishery Management Council's chairman suggested that a joint steering committee be developed and tasked with developing recommendations for joint management of yellowtail snapper and mutton snapper. Discussions for joint management will take place in 2013; hence, this action has not been removed from consideration in a future amendment.

Action 2. Modify commercial and recreational sector allocations for yellowtail snapper and mutton snapper to be consistent with the transfer in management authority to the South Atlantic Council

Alternative 1 (No Action). Sector allocations for yellowtail snapper and mutton snapper in the South Atlantic are based on the following formula:

$$(50\% \times \text{Average of SA landings 1986-2008}) + (50\% \times \text{Average of SA landings 2006-2008})$$

The current sector allocations for yellowtail snapper in the South Atlantic are 52.56% commercial and 47.44% recreational. The commercial and recreational ACLs are 1,142,589 pounds whole weight (ww) and 1,031,286 pounds ww, respectively.

The current sector allocations for mutton snapper in the South Atlantic are 17.02% commercial and 82.98% recreational. The commercial and recreational ACLs are 157,743 pounds ww and 768,857 pounds ww, respectively.

A single ACL is in place for each of these two species in the Gulf of Mexico. The stock ACL for yellowtail snapper is 725,000 pounds ww, and that for mutton snapper is 203,000 pounds ww.

Alternative 2. Revise sector allocations for yellowtail snapper and mutton snapper, based on the South Atlantic Council's approved allocations formula, to include landings from Gulf of Mexico waters. The revised formula would be:

$$(50\% \times \text{average of SA landings and Gulf landings 1986-2008}) + (50\% \times \text{average of SA and Gulf landings 2006-2008})$$

Sector allocations would be applicable in both South Atlantic and Gulf of Mexico waters.

Discussion: This action was removed from Amendment 27 because, in October 2012, the Gulf of Mexico Fishery Management Council's chairman suggested that a joint steering committee be developed and tasked with developing recommendations for joint management of yellowtail snapper and mutton snapper. Discussions for joint management will take place in 2013; hence, this action has not been removed from consideration in a future amendment.

Action 3. Address cross-jurisdictional permit issues for harvest of yellowtail snapper and mutton snapper in the southeast region

Alternative 1 (No Action). The Gulf of Mexico Reef Fish Permit is required for the commercial harvest of yellowtail snapper and mutton snapper from the Gulf of Mexico's Exclusive Economic Zone (EEZ), and the South Atlantic Unlimited Snapper Grouper Permit or 225 Snapper Grouper Permit is required for the commercial harvest of yellowtail snapper and mutton snapper from the South Atlantic EEZ. The Gulf of Mexico Charter/Headboat Reef Fish Permit is required to recreationally harvest yellowtail snapper and mutton snapper in Gulf of Mexico federal waters from a charter or headboat, and the South Atlantic Charter/Headboat Permit for Snapper Grouper is required for recreational harvest of yellowtail snapper and mutton snapper in South Atlantic federal waters from a charter or headboat.

Alternative 2. The South Atlantic Council will continue to allow commercial harvest of yellowtail snapper and mutton snapper in the Gulf of Mexico under the Gulf of Mexico Reef Fish Permit and the recreational harvest of yellowtail snapper and mutton snapper in the Gulf of Mexico from a charter or headboat under the Gulf of Mexico Charter/Headboat Reef Fish Permit. Commercial harvest of these species in South Atlantic waters will continue to require a commercial Snapper Grouper Unlimited Permit or 225 Snapper Grouper Permit and recreational harvest from a charter or headboat will continue to require a South Atlantic Charter/Headboat Permit for Snapper Grouper.

Discussion: This action was removed from Amendment 27 because, in October 2012, the Gulf of Mexico Fishery Management Council's chairman suggested that a joint steering committee be developed and tasked with developing recommendations for joint management of yellowtail snapper and mutton snapper. Discussions for joint management will take place in 2013; hence, this action has not been removed from consideration in a future amendment.

Action 4. Modify recreational management measures for yellowtail snapper to be consistent with the transfer in management authority to the South Atlantic Council

Alternative 1 (No Action). Retain the current Gulf of Mexico and South Atlantic commercial and recreational regulations for yellowtail snapper. In the South Atlantic and the Gulf of Mexico yellowtail snapper have a 12-inch total length (TL) commercial and recreational minimum size limit, and are included in the 10 snapper per person per day aggregate bag limit.

Alternative 2. Remove yellowtail snapper from the South Atlantic aggregate recreational bag limit and establish one southeast region recreational bag limit for yellowtail snapper.

Sub-Alternative 2a. Establish a southeast region yellowtail snapper recreational bag limit of 2 fish per person per day.

Sub-Alternative 2b. Establish a southeast region yellowtail snapper recreational bag limit of 5 fish per person per day.

Sub-Alternative 2c. Establish a southeast region yellowtail snapper recreational bag limit of 7 fish per person per day.

Discussion: This action was removed from Amendment 27 because, in October 2012, the Gulf of Mexico Fishery Management Council's chairman suggested that a joint steering committee be developed and tasked with developing recommendations for joint management of yellowtail snapper and mutton snapper. Discussions for joint management will take place in 2013; hence this action has not been removed from consideration in a future amendment.

Action 5. Modify management measures for mutton snapper to be consistent with the transfer in management authority to the South Atlantic Council

Alternative 1 (No Action). In the South Atlantic and in the Gulf of Mexico mutton snapper have a 16-inch TL commercial and recreational minimum size limit and are part of the 10 snappers per person per day aggregate bag limit. For mutton snapper in the South Atlantic, the commercial sector is limited to 10 fish per person per day or per trip, whichever is more restrictive, during May and June.

Alternative 2. Remove mutton snapper from the South Atlantic aggregate recreational bag limit and establish one southeast region recreational bag limit for mutton snapper.

Sub-Alternative 2a. Establish a southeast region mutton snapper recreational bag limit of 1 fish per person per day.

Sub-Alternative 2b. Establish a southeast region mutton snapper recreational bag limit of 2 fish per person per day.

Sub-Alternative 2c. Establish a southeast region mutton snapper recreational bag limit of 3 fish per person per day.

Alternative 3. Extend the commercial May and June harvest restriction for mutton snapper in the South Atlantic into Gulf of Mexico waters. Commercial harvest of mutton snapper during May and June would be limited to 10 per person per day or 10 per person per trip, whichever is more restrictive.

Discussion: This action was removed from Amendment 27 because, in October 2012, the Gulf of Mexico Fishery Management Council's chairman suggested that a joint steering committee be developed and tasked with developing recommendations for joint management of yellowtail snapper and mutton snapper. Discussions for joint management will take place in 2013; hence, this action has not been removed from consideration in a future amendment.

Alternative 5. Remove blue runner from the Snapper Grouper Fishery Management Unit in order for the state of Florida to assume management responsibilities for the species.

Discussion: This alternative was removed because the South Atlantic Council cannot require that the state of Florida undertake management of a species. The South Atlantic Council can only remove a species from a fishery management plan.

Action 4. Modify Section I of the Snapper Grouper FMP Framework procedure

OPTION 1. Add the following item to Item #9 in the Snapper Grouper FMP Framework Procedure for Specification of Annual Catch Limits, Annual Catch Targets, Overfishing Limits, Acceptable Biological Catch, and annual adjustments:

9. The NMFS Regional Administrator is authorized, through notice action, to conduct the following activities:

- d. Adjustments to ABCs, ACLs, and ACTs according to Council-approved ABC Control Rule(s) and Council-approved formulas for specifying ACLs and ACTs:
 - (i) Following the Scientific and Statistical Committee's (SSC's) review of the stock assessment, the Council will determine if changes are needed to ABC, ACL, and/or ACT and so advise the Regional Administrator (RA).
 - (ii) The Council will hold a public hearing during the Council meeting where they review the stock assessment and SSC's recommendations. In addition, the public will be advised prior to the meeting that the Council is considering potential changes and provide them the opportunity to comment prior to and during the meeting.
 - (iii) If the Council determines modifications are necessary and appropriate, they will notify the Regional Administrator (RA) of their recommendations in a letter that includes the Council's analysis of the biological, economic, and social impacts.

(iv) If the Council chooses to deviate from the existing ABC control rule and formulas for specifying ACLs and ACTs, the framework procedure would apply and a regulatory amendment or plan amendment would be prepared.

Discussion: During review of Amendment 27 at the March 2013 meeting, the Snapper Grouper Committee received advice from NOAA General Counsel (GC) that the preferred alternative for this action did not meet legal requirements as written. The Committee discussed what the intended purpose of the alternative was and NOAA CG offered clarification and suggestions for how the framework process could be modified to meet the Council's intent as well as legal requirements under the Magnuson Act. The Snapper Grouper Committee requested that staff, in consultation with NOAA GC, draft alternatives for their consideration. As a result, two options were presented to the Committee. After considering both, the Snapper Grouper Committee approved a motion to include Option 2 in the amendment as a replacement for the existing alternative. Since Option 1 was considered but not added as an alternative for analysis in the main document, it is presented here.

Appendix B. Glossary

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

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

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

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

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

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

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

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

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

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

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

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

Directed Fishery: Fishing directed at a certain species or species group.

Discards: Fish captured, but released at sea.

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

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

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

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

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

F: Fishing mortality.

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

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

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

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

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

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

Fishing Power: Measure of the relative ability of a fishing vessel, its gear, and its crew to catch fishes, in reference to some standard vessel, given both vessels are under identical conditions.

F_{30%SPR}: Fishing mortality that will produce a static SPR = 30%.

F_{45%SPR}: Fishing mortality that will produce a static SPR = 45%.

F_{OY}: Fishing mortality that will produce OY under equilibrium conditions and a corresponding biomass of B_{OY}. Usually expressed as the yield at 85% of F_{MSY}, yield at 75% of F_{MSY}, or yield at 65% of F_{MSY}.

F_{MSY}: Fishing mortality that if applied constantly, would achieve MSY under equilibrium conditions and a corresponding biomass of B_{MSY}

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

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

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

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

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

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

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

Longline: Fishing method using a horizontal mainline to which weights and baited hooks are attached at regular intervals. Gear is either fished on the bottom or in the water column.

Magnuson-Stevens Fishery Conservation and Management Act: Federal legislation responsible for establishing the fishery management councils and the mandatory and discretionary guidelines for federal fishery management plans.

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

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

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

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

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

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

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

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

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

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

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

Overfishing: Overfishing occurs when a stock or stock complex is subjected to a rate of fishing mortality that exceeds the maximum fishing mortality threshold (e.g., current fishing mortality rate > MFMT = overfishing).

Quota: Percent or annual amount of fish that can be harvested.

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

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

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

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

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

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

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

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

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

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

Total Length (TL): The length of a fish as measured from the tip of the snout to the tip of the tail.

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

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

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

Moving to Ecosystem-Based Management

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

The Fishery Ecosystem Plan for the South Atlantic Region encompasses the following volume structure:

FEP Volume I - Introduction and Overview of FEP for the South Atlantic Region

FEP Volume II - South Atlantic Habitats and Species

FEP Volume III - South Atlantic Human and Institutional Environment

FEP Volume IV - Threats to South Atlantic Ecosystem and Recommendations

Comprehensive Ecosystem-Based Amendment (CE-BA) 1 (SAFMC 2009b) is supported by this FEP and updates EFH and EFH-HAPC information and addresses the Final EFH Rule (e.g., GIS presented for all EFH and EFH-HAPCs). Management actions implemented in the CE-BA establish deepwater Coral HAPCs to protect what is thought to be the largest continuous distribution (>23,000 square miles) of pristine, deepwater coral ecosystems in the world.

Ecosystem Approach to Deepwater Ecosystem Management

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

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

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

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

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

- Collaboration with SECOORA to integrate OOS products on the Council’s Habitat and Ecosystem Internet Mapping System to facilitate model and tool development
- Expanding IMS and Arc Services will provide permissioned researchers access to data or products including those collected/developed by SA OOS partners

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

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

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

Building Tools to support EBM in the South Atlantic Region

The Council has developed a Habitat and Ecosystem Section of the website <http://www.safmc.net/ecosystem/Home/EcosystemHome/tabid/435/Default.aspx> and, in cooperation with the Florida Wildlife Research Institute (FWRI), developed a Habitat and Ecosystem Internet Map Server (IMS) <http://www.safmc.net/EcosystemManagement/EcosystemBoundaries/MappingandGISData/tabid/62/Default.aspx>. The IMS was developed to support Council and regional partners’ efforts in the transition to EBM. Other regional partners include NMFS Habitat Conservation, South Atlantic States,

local management authorities, other Federal partners, universities, conservation organizations, and recreational and commercial fishermen. As technology and spatial information needs evolve, the distribution and use of GIS demands greater capabilities. The Council has continued its collaboration with FWRI in the now evolution to Web Services initially for Essential Fish Habitat (http://ocean.floridamarine.org/SAFMC_EFH/) and Fishery Regulations (http://ocean.floridamarine.org/SAFMC_Regulations/) and is refining permissioned services for Fishery Independent and Habitat Research and developing one for Ocean Energy activities in the region (e.g., wind, wave and current).

Ecosystem Based Action, Future Challenges and Needs

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

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

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

EFH and EFH-HAPC Designations Translated to Cooperative Habitat Policy Development and Protection

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

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

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

South Atlantic Bight Ecopath Model

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

Essential Fish Habitat and Essential Fish Habitat Areas of Particular Concern

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

Snapper Grouper FMP

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

settlement. In addition the Gulf Stream is an essential fish habitat because it provides a mechanism to disperse snapper grouper larvae.

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

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

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

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

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

Shrimp FMP

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

For rock shrimp, essential fish habitat consists of offshore terrigenous and biogenic sand bottom habitats

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

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

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

Coastal Migratory Pelagics FMP

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

For Cobia essential fish habitat also includes high salinity bays, estuaries, and seagrass habitat. In addition, the Gulf Stream is an essential fish habitat because it provides a mechanism to disperse coastal migratory pelagic larvae.

For king and Spanish mackerel and cobia essential fish habitat occurs in the South Atlantic and Mid-Atlantic Bights.

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

Golden Crab FMP

Essential fish habitat for golden crab includes the U.S. Continental Shelf from Chesapeake Bay south

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

Spiny Lobster FMP

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

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

Coral, Coral Reefs, and Live/Hard Bottom Habitats FMP

Essential fish habitat for corals (stony corals, octocorals, and black corals) must incorporate habitat for over 200 species. EFH for corals include the following:

- A. Essential fish habitat for hermatypic stony corals includes rough, hard, exposed, stable substrate from Palm Beach County south through the Florida reef tract in subtidal to 30 m depth, subtropical (15°-35° C), oligotrophic waters with high (30-35‰) salinity and turbidity levels sufficiently low enough to provide algal symbionts adequate sunlight penetration for photosynthesis. Ahermatypic stony corals are not light restricted and their essential fish habitat includes defined hard substrate in subtidal to outer shelf depths throughout the management area.
- B. Essential fish habitat for *Antipatharia* (black corals) includes rough, hard, exposed, stable substrate, offshore in high (30-35‰) salinity waters in depths exceeding 18 meters (54 feet), not restricted by light penetration on the outer shelf throughout the management area.
- C. Essential fish habitat for octocorals excepting the order Pennatulacea (sea pens and sea pansies) includes rough, hard, exposed, stable substrate in subtidal to outer shelf depths within a wide range of salinity and light penetration throughout the management area.
- D. Essential fish habitat for Pennatulacea (sea pens and sea pansies) includes muddy, silty bottoms in subtidal to outer shelf depths within a wide range of salinity and light penetration.

Areas which meet the criteria for EFH-HAPCs for coral, coral reefs, and live/hard bottom include: The 10-Fathom Ledge, Big Rock, and The Point (North Carolina); Hurl Rocks and The Charleston Bump (South Carolina); Gray's Reef National Marine Sanctuary (Georgia); The *Phragmatopoma* (worm reefs) reefs off the central east coast of Florida; Oculina Banks off the east coast of Florida from Ft. Pierce to Cape Canaveral; nearshore (0-4 meters; 0-12 feet) hard bottom off the east coast

of Florida from Cape Canaveral to Broward County); offshore (5-30 meter; 15-90 feet) hard bottom off the east coast of Florida from Palm Beach County to Fowey Rocks; Biscayne Bay, Florida; Biscayne National Park, Florida; and the Florida Keys National Marine Sanctuary. In addition, the Council through CEBA 2 (SAFMC 2011) is proposing the Deepwater Coral HAPCs as EFH-HAPCs under the Coral FMP as follows:

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

Dolphin and Wahoo FMP

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

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

Pelagic *Sargassum* Habitat FMP

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

Actions Implemented That Protect EFH and EFH-HAPCs

Snapper Grouper FMP

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

Shrimp FMP

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

Pelagic Sargassum Habitat FMP

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

Coastal Migratory Pelagics FMP

- Prohibited of the use of drift gillnets in the coastal migratory pelagic fishery;

Golden Crab FMP

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

Coral, Coral Reefs and Live/Hard Bottom FMP

- Established an optimum yield of zero and prohibiting all harvest or possession of these resources which serve as essential fish habitat to many managed species.
- Designated of the *Oculina* Bank Habitat Area of Particular Concern
- Expanded the *Oculina* Bank Habitat Area of Particular Concern (HAPC) to an area bounded to the west by 80°W. longitude, to the north by 28°30' N. latitude, to the south by 27°30' N. latitude, and to the east by the 100 fathom (600 feet) depth contour.
- Established the following two Satellite *Oculina* HAPCs: (1) Satellite *Oculina* HAPC #1 is bounded on the north by 28°30'N. latitude, on the south by 28°29'N. latitude, on the east by 80°W. longitude, and on the west by 80°3'W. longitude, and (2) Satellite *Oculina* HAPC #2 is bounded on the north by 28°17'N. latitude, on the south by 28°16'N. latitude, on the east by 80°W. longitude, and on the west by 80°3'W. longitude.
- Prohibited the use of all bottom tending fishing gear and fishing vessels from anchoring or using grapples in the *Oculina* Bank HAPC.
- Established a framework procedure to modify or establish Coral HAPCs.
- Established the following six deepwater CHAPCs: Cape Lookout Lophelia Banks, Cape Fear Lophelia Banks, Stetson Reefs, Savannah and East Florida Lithoherms, and Miami Terrace (Stetson-Miami Terrace), Pourtales Terrace, and Blake Ridge Diapir Methane Seep.
- Within the deepwater CHAPCs, the possession of coral species and the use of all bottom damaging gear is prohibited including bottom longline, trawl (bottom and mid-water), dredge, pot or trap, or the use of an anchor, anchor and chain, or grapple and chain by all fishing vessels.

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

SAFMC Habitat and Environmental Protection Policy

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

SAFMC EFH Policy Statements

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

Appendix D. History of Management

History of Management of the South Atlantic Snapper Grouper Fishery

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

Document	All Actions Effective By:	Proposed Rule Final Rule	Major Actions. Note that not all details are provided here. Please refer to Proposed and Final Rules for all impacts of listed documents.
FMP (1983)	08/31/83	PR: 48 FR 26843 FR: 48 FR 39463	-12" limit – red snapper, yellowtail snapper, red grouper, Nassau grouper -8" limit – black sea bass -4" trawl mesh size -Gear limitations – poisons, explosives, fish traps, trawls -Designated modified habitats or artificial reefs as Special Management Zones (SMZs)
Regulatory Amendment #1 (1987)	03/27/87	PR: 51 FR 43937 FR: 52 FR 9864	-Prohibited fishing in SMZs except with hand-held hook-and-line and spearfishing gear. -Prohibited harvest of goliath grouper in SMZs.
Amendment #1 (1988a)	01/12/89	PR: 53 FR 42985 FR: 54 FR 1720	-Prohibited trawl gear to harvest fish south of Cape Hatteras, NC and north of Cape Canaveral, FL. -Directed fishery defined as vessel with trawl gear and ≥200 lbs s-g on board. -Established rebuttable assumption that vessel with s-g on board had harvested such fish in EEZ.
Regulatory Amendment #2 (1988b)	03/30/89	PR: 53 FR 32412 FR: 54 FR 8342	-Established 2 artificial reefs off Ft. Pierce, FL as SMZs.
Notice of Control Date	09/24/90	55 FR 39039	-Anyone entering federal wreckfish fishery in the EEZ off S. Atlantic states after 09/24/90 was not assured of future access if limited entry program developed.
Regulatory Amendment #3 (1989)	11/02/90	PR: 55 FR 28066 FR: 55 FR 40394	-Established artificial reef at Key Biscayne, FL as SMZ. Fish trapping, bottom longlining, spear fishing, and harvesting of Goliath grouper prohibited in SMZ.
Amendment #2 (1990a)	10/30/90	PR: 55 FR 31406 FR: 55 FR 46213	-Prohibited harvest/possession of goliath grouper in or from the EEZ -Defined overfishing for goliath grouper and other species

Document	All Actions Effective By:	Proposed Rule Final Rule	Major Actions. Note that not all details are provided here. Please refer to Proposed and Final Rules for all impacts of listed documents.
Emergency Rule	8/3/90	55 FR 32257	-Added wreckfish to the FMU -Fishing year beginning 4/16/90 -Commercial quota of 2 million pounds -Commercial trip limit of 10,000 pounds per trip
Fishery Closure Notice	8/8/90	55 FR 32635	- Fishery closed because the commercial quota of 2 million pounds was reached
Emergency Rule Extension	11/1/90	55 FR 40181	-extended the measures implemented via emergency rule on 8/3/90
Amendment #3 (1990b)	01/31/91	PR: 55 FR 39023 FR: 56 FR 2443	-Added wreckfish to the FMU; -Defined optimum yield and overfishing -Required permit to fish for, land or sell wreckfish; -Required catch and effort reports from selected, permitted vessels; -Established control date of 03/28/90; -Established a fishing year for wreckfish starting April 16; -Established a process to set annual quota, with initial quota of 2 million pounds; provisions for closure; -Established 10,000 pound trip limit; -Established a spawning season closure for wreckfish from January 15 to April 15; and -Provided for annual adjustments of wreckfish management measures;
Notice of Control Date	07/30/91	56 FR 36052	-Anyone entering federal snapper grouper fishery (other than for wreckfish) in the EEZ off S. Atlantic states after 07/30/91 was not assured of future access if limited entry program developed.

Document	All Actions Effective By:	Proposed Rule Final Rule	Major Actions. Note that not all details are provided here. Please refer to Proposed and Final Rules for all impacts of listed documents.
Amendment #4 (1991)	01/01/92	PR: 56 FR 29922 FR: 56 FR 56016	<ul style="list-style-type: none"> -Prohibited gear: fish traps except black sea bass traps north of Cape Canaveral, FL; entanglement nets; longline gear inside 50 fathoms; bottom longlines to harvest wreckfish**; powerheads and bangsticks in designated SMZs off S. Carolina. -defined overfishing/overfished and established rebuilding timeframe: red snapper and groupers ≤ 15 years (year 1 = 1991); other snappers, greater amberjack, black sea bass, red porgy ≤ 10 years (year 1 = 1991) -Required permits (commercial & for-hire) and specified data collection regulations -Established an assessment group and annual adjustment procedure (framework) -Permit, gear, and vessel id requirements specified for black sea bass traps. -No retention of snapper grouper spp. caught in other fisheries with gear prohibited in snapper grouper fishery if captured snapper grouper had no bag limit or harvest was prohibited. If had a bag limit, could retain only the bag limit. -8” limit – lane snapper -10” limit – vermilion snapper (recreational only) -12” limit – red porgy, vermilion snapper (commercial only), gray, yellowtail, mutton, schoolmaster, queen, blackfin, cubera, dog, mahogany, and silk snappers -20” limit – red snapper, gag, and red, black, scamp, yellowfin, and yellowmouth groupers. -28” FL limit – greater amberjack (recreational only) -36” FL or 28” core length – greater amberjack (commercial only) -bag limits – 10 vermilion snapper, 3 greater amberjack -aggregate snapper bag limit – 10/person/day, excluding vermilion snapper and allowing no more than 2 red snappers -aggregate grouper bag limit – 5/person/day, excluding Nassau and goliath grouper, for which no retention (recreational & commercial) is allowed -spawning season closure – commercial harvest greater amberjack > 3 fish bag prohibited in April south of Cape Canaveral, FL -spawning season closure – commercial harvest mutton snapper > snapper aggregate prohibited during May and June -charter/headboats and excursion boat possession limits extended
Amendment #5 (1992a)	04/06/92	PR: 56 FR 57302 FR: 57 FR 7886	<ul style="list-style-type: none"> -Wreckfish: established limited entry system with ITQs; required dealer to have permit; rescinded 10,000 lb. trip limit; required off-loading between 8 am and 5 pm; reduced occasions when 24-hour advance notice of offloading required for off-loading; established procedure for initial distribution of percentage shares of TAC

Document	All Actions Effective By:	Proposed Rule Final Rule	Major Actions. Note that not all details are provided here. Please refer to Proposed and Final Rules for all impacts of listed documents.
Emergency Rule	8/31/92	57 FR 39365	-Black Sea Bass (bsb): modified definition of bsb pot; allowed multi-gear trips for bsb; allowed retention of incidentally-caught fish on bsb trips
Emergency Rule Extension	11/30/92	57 FR 56522	-Black Sea Bass: modified definition of bsb pot; allowed multi-gear trips for bsb; allowed retention of incidentally-caught fish on bsb trips
Regulatory Amendment #4 (1992b)	07/06/93	FR: 58 FR 36155	-Black Sea Bass: modified definition of bsb pot; allowed multi-gear trips for bsb; allowed retention of incidentally-caught fish on bsb trips
Regulatory Amendment #5 (1992c)	07/31/93	PR: 58 FR 13732 FR: 58 FR 35895	-Established 8 SMZs off S. Carolina, where only hand-held, hook-and-line gear and spearfishing (excluding powerheads) was allowed.
Amendment #6 (1993)	07/27/94	PR: 59 FR 9721 FR: 59 FR 27242	-Set up separate commercial Total Allowable Catch (TAC) levels for golden tilefish and snowy grouper -Established commercial trip limits for snowy grouper, golden tilefish, speckled hind, and warsaw grouper -Included golden tilefish in grouper recreational aggregate bag limits -Prohibited sale of warsaw grouper and speckled hind -100% logbook coverage upon renewal of permit -Creation of the <i>Oculina</i> Experimental Closed Area -Data collection needs specified for evaluation of possible future IFQ system
Amendment #7 (1994a)	01/23/95	PR: 59 FR 47833 FR: 59 FR 66270	-12" FL – hogfish -16" TL – mutton snapper -Required dealer, charter and headboat federal permits -Allowed sale under specified conditions -Specified allowable gear and made allowance for experimental gear -Allowed multi-gear trips in N. Carolina -Added localized overfishing to list of problems and objectives -Adjusted bag limit and crew specs. for charter and head boats -Modified management unit for scup to apply south of Cape Hatteras, NC -Modified framework procedure
Regulatory Amendment #6 (1994b)	05/22/95	PR: 60 FR 8620 FR: 60 FR 19683	-Established actions which applied only to EEZ off Atlantic coast of FL: Bag limits – 5 hogfish/person/day (recreational only), 2 cubera snapper/person/day > 30" TL; 12" TL – gray triggerfish
Notice of Control Date	04/23/97	62 FR 22995	-Anyone entering federal bsb pot fishery off S. Atlantic states after 04/23/97 was not assured of future access if limited entry program developed.

Document	All Actions Effective By:	Proposed Rule Final Rule	Major Actions. Note that not all details are provided here. Please refer to Proposed and Final Rules for all impacts of listed documents.
Amendment #8 (1997)	12/14/98	PR: 63 FR 1813 FR: 63 FR 38298	<ul style="list-style-type: none"> -Established program to limit initial eligibility for snapper grouper fishery: Must demonstrate landings of any species in SG FMU in 1993, 1994, 1995 or 1996; and have held valid SG permit between 02/11/96 and 02/11/97. -Granted transferable permit with unlimited landings if vessel landed \geq 1,000 lbs. of snapper grouper spp. in any of the years -Granted non-transferable permit with 225 lb. trip limit to all other vessels -Modified problems, objectives, OY, and overfishing definitions -Expanded Council's habitat responsibility -Allowed retention of snapper grouper spp. in excess of bag limit on permitted vessel with a single bait net or cast nets on board -Allowed permitted vessels to possess filleted fish harvested in the Bahamas under certain conditions.
Regulatory Amendment #7 (1998a)	01/29/99	PR: 63 FR 43656 FR: 63 FR 71793	-Established 10 SMZs at artificial reefs off South Carolina.
Interim Rule Request	1/16/98		-Council requested all Amendment 9 measures except black sea bass pot construction changes be implemented as an interim request under MSA
Action Suspended	5/14/98		-NMFS informed the Council that action on the interim rule request was suspended
Emergency Rule Request	9/24/98		-Council requested Amendment 9 be implemented via emergency rule
Request not Implemented	1/22/99		-NMFS informed the Council that the final rule for Amendment 9 would be effective 2/24/99; therefore they did not implement the emergency rule

Document	All Actions Effective By:	Proposed Rule Final Rule	Major Actions. Note that not all details are provided here. Please refer to Proposed and Final Rules for all impacts of listed documents.
Amendment #9 (1998b)	2/24/99	PR: 63 FR 63276 FR: 64 FR 3624	<p>-<u>Red porgy</u>: 14" length (recreational and commercial); 5 fish rec. bag limit; no harvest or possession > bag limit, and no purchase or sale, in March and April.</p> <p>-<u>Black sea bass</u>: 10" length (recreational and commercial); 20 fish rec. bag limit; required escape vents and escape panels with degradable fasteners in bsb pots</p> <p>-<u>Greater amberjack</u>: 1 fish rec. bag limit; no harvest or possession > bag limit, and no purchase or sale, during April; quota = 1,169,931 lbs; began fishing year May 1; prohibited coring.</p> <p>-Specified size limits for several snapper grouper species (indicated in parentheses in inches TL): including yellowtail snapper (12), mutton snapper (16), red snapper (20); red grouper, yellowfin grouper, yellowmouth grouper, and scamp (20).</p> <p>-<u>Vermilion snapper</u>: 11" length (recreational), 12" length commercial</p> <p>-<u>Gag</u>: 24" length (recreational); no commercial harvest or possession > bag limit, and no purchase or sale, during March and April.</p> <p>-<u>Black grouper</u>: 24" length (recreational and commercial); no harvest or possession > bag limit, and no purchase or sale, during March and April.</p> <p>-<u>Gag and Black grouper</u>: within 5 fish aggregate grouper bag limit, no more than 2 fish may be gag or black grouper (individually or in combination)</p> <p>-<u>All SG without a bag limit</u>: aggregate recreational bag limit 20 fish/person/day, excluding tomtate and blue runners</p> <p>-<u>Vessels with longline gear</u> aboard may only possess snowy, warsaw, yellowedge, and misty grouper, and golden, blueline and sand tilefish.</p>
Amendment #9 (1998b) resubmitted	10/13/00	PR: 63 FR 63276 FR: 65 FR 55203	-Commercial trip limit for greater amberjack
Emergency Interim Rule	09/08/99, expired 08/28/00	64 FR 48324 and 65 FR 10040	-Prohibited harvest or possession of red porgy.
Emergency Action	9/3/99	64 FR 48326	-Reopened the Amendment 8 permit application process
Amendment #10 (1998c)	07/14/00	PR: 64 FR 37082 and 64 FR 59152 FR: 65 FR 37292	-Identified EFH and established HAPCs for species in the SG FMU.

Document	All Actions Effective By:	Proposed Rule Final Rule	Major Actions. Note that not all details are provided here. Please refer to Proposed and Final Rules for all impacts of listed documents.
Amendment #11 (1998d)	12/02/99	PR: 64 FR 27952 FR: 64 FR 59126	-MSY proxy: goliath and Nassau grouper = 40% static SPR; all other species = 30% static SPR -OY: hermaphroditic groupers = 45% static SPR; goliath and Nassau grouper = 50% static SPR; all other species = 40% static SPR -Overfished/overfishing evaluations: BSB: overfished (MSST=3.72 mp, 1995 biomass=1.33 mp); undergoing overfishing (MFMT=0.72, F1991-1995=0.95) Vermilion snapper: overfished (static SPR = 21-27%). Red porgy: overfished (static SPR = 14-19%). Red snapper: overfished (static SPR = 24-32%) Gag: overfished (static SPR = 27%) Scamp: no longer overfished (static SPR = 35%) Speckled hind: overfished (static SPR = 8-13%) Warsaw grouper: overfished (static SPR = 6-14%) Snowy grouper: overfished (static SPR = 5-15%) White grunt: no longer overfished (static SPR = 29-39%) Golden tilefish: overfished (couldn't estimate static SPR) Nassau grouper: overfished (couldn't estimate static SPR) Goliath grouper: overfished (couldn't estimate static SPR) -overfishing level: goliath and Nassau grouper = $F > F_{40\%}$ static SPR; all other species: = $F > F_{30\%}$ static SPR Approved definitions for overfished and overfishing. $MSST = [(1-M) \text{ or } 0.5 \text{ whichever is greater}] * B_{MSY}$. $MFMT = F_{MSY}$
Regulatory Amendment #8 (2000a)	11/15/00	PR: 65 FR 41041 FR: 65 FR 61114	-Established 12 SMZs at artificial reefs off Georgia; revised boundaries of 7 existing SMZs off Georgia to meet CG permit specs; restricted fishing in new and revised SMZs
Amendment #12 (2000b)	09/22/00	PR: 65 FR 35877 FR: 65 FR 51248	-Red porgy: $MSY=4.38$ mp; $OY=45\%$ static SPR; $MFMT=0.43$; $MSST=7.34$ mp; rebuilding timeframe=18 years (1999=year 1); no sale of red porgy during Jan-April; 1 fish bag limit; 50 lb. bycatch comm. trip limit May-December; modified management options and list of possible framework actions.
Amendment #13A (2003)	04/26/04	PR: 68 FR 66069 FR: 69 FR 15731	-Extended for an indefinite period the regulation prohibiting fishing for and possessing snapper grouper spp. within the <i>Oculina</i> Experimental Closed Area.
Notice of Control Date	10/14/05	70 FR 60058	-The Council is considering management measures to further limit participation or effort in the commercial fishery for snapper grouper species (excluding Wreckfish).
Amendment #13C (2006)	10/23/06	PR: 71 FR 28841 FR: 71 FR 55096	- End overfishing of snowy grouper, vermilion snapper, black sea bass, and golden tilefish. Increase allowable catch of red porgy. Year 1 = 2006. 1. Snowy Grouper Commercial: Quota (gutted weight) = 151,000 lbs gw in year 1, 118,000 lbs gw in year 2, and 84,000 lbs gw in year 3 onwards. Trip limit = 275 lbs gw

Document	All Actions Effective By:	Proposed Rule Final Rule	Major Actions. Note that not all details are provided here. Please refer to Proposed and Final Rules for all impacts of listed documents.
			<p>in year 1, 175 lbs gw in year 2, and 100 lbs gw in year 3 onwards.</p> <p>Recreational: Limit possession to one snowy grouper in 5 grouper per person/day aggregate bag limit.</p> <p>2. Golden Tilefish Commercial: Quota of 295,000 lbs gw, 4,000 lbs gw trip limit until 75% of the quota is taken when the trip limit is reduced to 300 lbs gw. Do not adjust the trip limit downwards unless 75% is captured on or before September 1.</p> <p>Recreational: Limit possession to 1 golden tilefish in 5 grouper per person/day aggregate bag limit.</p> <p>3. Vermilion Snapper Commercial: Quota of 1,100,000 lbs gw.</p> <p>Recreational: 12" size limit.</p> <p>4. Black Sea Bass Commercial: Commercial quota (gutted weight) of 477,000 lbs gw in year 1, 423,000 lbs gw in year 2, and 309,000 lbs gw in year 3 onwards. Require use of at least 2" mesh for the entire back panel of black sea bass pots effective 6 months after publication of the final rule. Require black sea bass pots be removed from the water when the quota is met. Change fishing year from calendar year to June 1 – May 31.</p> <p>Recreational: Recreational allocation of 633,000 lbs gw in year 1, 560,000 lbs gw in year 2, and 409,000 lbs gw in year 3 onwards. Increase minimum size limit from 10" to 11" in year 1 and to 12" in year 2. Reduce recreational bag limit from 20 to 15 per person per day. Change fishing year from the calendar year to June 1 through May 31.</p> <p>5. Red Porgy Commercial and recreational:</p> <ol style="list-style-type: none"> 1. Retain 14" TL size limit and seasonal closure (retention limited to the bag limit); 2. Specify a commercial quota of 127,000 lbs gw and prohibit sale/purchase and prohibit harvest and/or possession beyond the bag limit when quota is taken and/or during January through April; 3. Increase commercial trip limit from 50 lbs ww to 120 red porgy (210 lbs gw) during May through December; 4. Increase recreational bag limit from one to three red porgy per person per day.
Notice of Control Date	3/8/07	72 FR 60794	-The Council may consider measures to limit participation in the snapper grouper for-hire fishery
Amendment #14 (2007)	2/12/09	PR: 73 FR 32281 FR: 74 FR 1621	-Establish eight deepwater Type II marine protected areas (MPAs) to protect a portion of the population and habitat of long-lived deepwater snapper grouper species.
Amendment #15A (2008a)	3/14/08	73 FR 14942	- Establish rebuilding plans and SFA parameters for snowy grouper, black sea bass, and red porgy.
Amendment #15B (2008b)	2/15/10	PR: 74 FR 30569 FR: 74 FR 58902	<p>-Prohibit the sale of bag-limit caught snapper grouper species.</p> <p>-Reduce the effects of incidental hooking on sea turtles and smalltooth sawfish.</p> <p>-Adjust commercial renewal periods and transferability</p>

Document	All Actions Effective By:	Proposed Rule Final Rule	Major Actions. Note that not all details are provided here. Please refer to Proposed and Final Rules for all impacts of listed documents.
			requirements. -Implement plan to monitor and assess bycatch, -Establish reference points for golden tilefish. -Establish allocations for snowy grouper (95% com & 5% rec) and red porgy (50% com & 50% rec).
Amendment #16 (SAFMC 2009a)	7/29/09	PR: 74 FR 6297 FR: 74 FR 30964	-Specify SFA parameters for gag and vermilion snapper -For gag grouper: Specify interim allocations 51%com & 49%rec; rec & com spawning closure January through April; directed com quota=348,440 pounds gutted weight; -reduce 5-fish aggregate grouper bag limit, including tilefish species, to a 3-fish aggregate. -Captain and crew on for-hire trips cannot retain the bag limit of species within the 3-fish grouper aggregate. -For vermilion snapper: Specify interim allocations 68%com & 32%rec; directed com quota split Jan-June=168,501 pounds gutted weight and 155,501 pounds July-Dec; reduce bag limit from 10 to 4 and a rec closed season October through May 15. In addition, the NMFS RA will set new regulations based on new stock assessment. -Require dehooking tools.
Amendment #19 (Comprehensive Ecosystem-based Amendment 1; SAFMC 2009b)	7/22/10	PR: 75 FR 14548 FR: 75 FR 35330	-Provide presentation of spatial information for Essential Fish Habitat (EFH) and EFH-Habitat Areas of Particular Concern (EFH-HAPC) designations under the Snapper Grouper FMP - Designation of deepwater coral HAPCs
Amendment #17A (SAFMC 2010a)	12/3/10 red snapper closure; circle hooks March 3, 2011	PR: 75 FR 49447 FR: 75 FR 76874	- Required use of non-stainless steel circle hooks when fishing for snapper grouper species with hook-and-line gear north of 28 deg. N latitude in the South Atlantic EEZ -Specify an ACL and an AM for red snapper with management measures to reduce the probability that catches will exceed the stocks' ACL -Specify a rebuilding plan for red snapper -Specify status determination criteria for red snapper -Specify a monitoring program for red snapper
Emergency Rule	12/3/10	75 FR 76890	- Delay the effective date of the area closure for snapper grouper species implemented through Amendment 17A
Amendment #17B (SAFMC 2010b)	January 31, 2011	PR: 75 FR 62488 FR: 75 FR 82280	-Specify ACLs, ACTs, and AMs, where necessary, for 9 species undergoing overfishing. -Modify management measures as needed to limit harvest to the ACL or ACT. -Update the framework procedure for specification of total allowable catch. -Prohibited harvest of deepwater species seaward of 240 feet to curb bycatch of speckled hind and warsaw grouper
Notice of Control Date	12/4/08	74 FR 7849	Establishes a control date for the golden tilefish fishery of the South Atlantic

Document	All Actions Effective By:	Proposed Rule Final Rule	Major Actions. Note that not all details are provided here. Please refer to Proposed and Final Rules for all impacts of listed documents.
Notice of Control Date	12/4/08	74 FR 7849	- Establishes control date for black sea bass pot fishery of the South Atlantic
Regulatory Amendment #10 (SAFMC 2010c)	5/31/11	PR: 76 FR 9530 FR: 76 FR 23728	-Eliminate closed area for snapper grouper species approved in Amendment 17A
Regulatory Amendment #9 (SAFMC 2011a)	Bag limit: 6/22/11 Trip limits: 7/15/11	PR: 76 FR 23930 FR: 76 FR 34892	- Establish trip limit for vermilion snapper and gag, increase trip limit for greater amberjack, and reduce bag limit for black sea bass
Regulatory Amendment #11 (2011b)	5/10/12	PR: 76 FR 78879 FR: 77 FR 27374	- Eliminate 240 ft closure for six deepwater species.
Amendment # 25 (Comprehensive ACL Amendment) (SAFMC 2011c)	4/16/12	PR: 76 FR 74757 Amended PR: 76 FR 82264 FR: 77 FR 15916	-Establish ABC control rules, establish ABCs, ACLs, and AMs for species not undergoing overfishing -Remove some species from South Atlantic FMU and designate others as Ecosystem Component Species -Specify allocations between the commercial and recreational sectors for species not undergoing overfishing -Limit the total mortality for federally managed species in the South Atlantic to the ACLs
Amendment #24 (SAFMC 2011d)	7/11/12	PR: 77 FR 19169 FR: 77 FR 34254	-Specify MSY, rebuilding plan (including ACLs, AMs, and OY), and allocations for red grouper
Amendment #23 (Comprehensive Ecosystem-based Amendment 2; SAFMC 2011e)	1/30/12	PR: 76 FR 69230 FR: 76 FR 82183	- Designate the Deepwater MPAs as EFH-HAPCs - Limit harvest of snapper grouper species in SC Special Management Zones to the bag limit - Modify sea turtle release gear
Amendment #20B	TBD	TBD	-Update wreckfish ITQ according to reauthorized Magnuson-Stevens Act
Amendment #18A (SAFMC 2012a)	7/1/12	PR: 77 FR 16991 FR: 77FR3 2408	- Limit participation and effort in the black sea bass fishery - Modifications to management of the black sea bass pot fishery - Improve the accuracy, timing, and quantity of fisheries statistics
Amendment #20A (SAFMC 2012b)	10/26/12	PR: 77 FR 19165 FR: 77 FR 59129	-Redistribute latent shares for the wreckfish ITQ program.

Document	All Actions Effective By:	Proposed Rule Final Rule	Major Actions. Note that not all details are provided here. Please refer to Proposed and Final Rules for all impacts of listed documents.
Regulatory Amendment #12 (SAFMC 2012c)	10/9/12	FR: 77 FR 61295	-Adjust the Annual Catch Limit (ACL) and Optimum Yield (OY) for golden tilefish -Consider specifying a commercial Annual Catch Target (ACT) -Revise recreational Accountability Measures (AMs) for golden tilefish.
Amendment #18B	TBD	TBD	-Limit participation and effort in the golden tilefish fishery through establishment of a longline endorsement -Change the golden tilefish fishing year -Modify trip limits -specify allocations for gear groups (longline and hook and line)
Amendment # 26 (Comprehensive Ecosystem-Based Amendment 3)	TBD	TBD	-Modify bycatch and discard reporting for commercial and for-hire vessels
Regulatory Amendment #13	TBD	TBD	-Revise the ABCs, ACLs (including sector ACLs), and ACTs implemented by the Comprehensive ACL Amendment (SAFMC 2011c). The revisions may prevent a disjunction between the established ACLs and the landings used to determine if AMs are triggered.
Regulatory Amendment #14	TBD	TBD	-Revise the ACL (including sector ACLs), OY, and ACT for black sea bass; -Modify the fishing year and reduce of the trip limit for greater amberjack; -Provide protective measures during the spawning season for mutton snapper; -Change the measurement method for gray triggerfish; -Increase the minimum size limit for hogfish; -Modify the fishing year for both sectors for black sea bass; -Change the recreational bag limit for vermilion snapper; -Modify the aggregate grouper bag limit; and -Revise the AMs for gag, vermilion snapper, and red porgy.
Regulatory Amendment #15	TBD	TBD	-Modify the existing specification of optimum yield and annual catch limit for yellowtail snapper in the South Atlantic; -Modify existing regulations for yellowtail snapper in the South Atlantic; and -Modify the existing gag commercial annual catch limit and/or accountability measure for gag that requires a closure of all other shallow water groupers (black grouper, red grouper, scamp, red hind, rock hind, graysby, coney, yellowmouth grouper, and yellowfin grouper) in the South Atlantic when the gag commercial annual catch limit is met or projected to be met.

Document	All Actions Effective By:	Proposed Rule Final Rule	Major Actions. Note that not all details are provided here. Please refer to Proposed and Final Rules for all impacts of listed documents.
Regulatory Amendment #16	TBD	TBD	-Address existing derby conditions and lengthen the fishing season for the commercial longline sector of the golden tilefish portion of the snapper grouper fishery.
Amendment #27	TBD	TBD	-Establish the South Atlantic Council as the responsible entity for managing Nassau grouper throughout its range including federal waters of the Gulf of Mexico; -Modify the crew member limit on dual-permitted snapper grouper vessels; -Modify the restriction on retention of bag limit quantities of some snapper grouper species by captain and crew of for-hire vessels; -Minimize regulatory delay when adjustments to snapper grouper species' ABC, ACLs, and ACTs are needed as a result of new stock assessments; -Address harvest of blue runner by commercial fishermen who do not possess a South Atlantic Snapper Grouper Permit.
Amendment #28	TBD	TBD	-Establish regulations to allow harvest of red snapper in the South Atlantic.
Amendment #30	TBD	TBD	-Consider requiring Vessel Monitoring Systems (VMS) for commercial snapper grouper vessels in the South Atlantic

References:

SAFMC (South Atlantic Fishery Management Council). 1983. Fishery Management Plan, Regulatory Impact Review and Final Environmental Impact Statement for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Circle, Suite 306, Charleston, South Carolina, 29407-4699.

SAFMC (South Atlantic Fishery Management Council). 1987. Regulatory Amendment 1 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Suite 306, Charleston, S.C. 29407-4699.

SAFMC (South Atlantic Fishery Management Council). 1988a. Amendment Number 1 and Environmental Assessment and Regulatory Impact Review to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Suite 306, Charleston, S.C. 29407-4699. 63 pp.

SAFMC (South Atlantic Fishery Management Council). 1988b. Regulatory Amendment 2 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Suite 306, Charleston, S.C. 29407-4699.

SAFMC (South Atlantic Fishery Management Council). 1989. Regulatory Amendment 3 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Suite 306, Charleston, S.C. 29407-4699.

SAFMC (South Atlantic Fishery Management Council). 1990a. Amendment Number 2, to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Suite 306, Charleston, S.C. 29407-4699.

SAFMC (South Atlantic Fishery Management Council). 1990b. Amendment Number 3, Regulatory Impact Review, Initial Regulatory Flexibility Analysis and Environmental Assessment for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Suite 306, Charleston, S.C. 29407-4699.

SAFMC (South Atlantic Fishery Management Council). 1991. Amendment Number 4, Regulatory Impact Review, Initial Regulatory Flexibility Analysis and Environmental Assessment for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Suite 306, Charleston, S.C. 29407-4699. 200 pp.

SAFMC (South Atlantic Fishery Management Council). 1992a. Amendment 5 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Suite 306, Charleston, S.C. 29407-4699.

SAFMC (South Atlantic Fishery Management Council). 1992b. Regulatory Amendment 4 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Suite 306, Charleston, S.C. 29407-4699.

SAFMC (South Atlantic Fishery Management Council). 1992c. Regulatory Amendment 5 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Suite 306, Charleston, S.C. 29407-4699.

SAFMC (South Atlantic Fishery Management Council). 1993. Amendment Number 6, Regulatory Impact Review, Initial Regulatory Flexibility Analysis and Environmental Assessment for the Fishery Management Plan for the Snapper Grouper Fishery of the South

Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Suite 306, Charleston, S.C. 29407-4699. 155 pp.

SAFMC (South Atlantic Fishery Management Council). 1994a. Amendment Number 7, Regulatory Impact Review, Social Impact Assessment, Initial Regulatory Flexibility Analysis and Supplemental Environmental Impact Statement for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Ste 306, Charleston, S.C. 29407-4699. 110 pp.

SAFMC (South Atlantic Fishery Management Council). 1994b. Regulatory Amendment 6 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Suite 306, Charleston, S.C. 29407-4699.

SAFMC (South Atlantic Fishery Management Council). 1997. Amendment Number 8, Regulatory Impact Review, Social Impact Assessment, Initial Regulatory Flexibility Analysis and Supplemental Environmental Impact Statement for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Ste 306, Charleston, S.C. 29407-4699. 124 pp.

SAFMC (South Atlantic Fishery Management Council). 1998a. Regulatory Amendment 7 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Suite 306, Charleston, S.C. 29407-4699.

SAFMC (South Atlantic Fishery Management Council). 1998b. Amendment 9, Final Supplemental Environmental Impact Statement, Initial Regulatory Flexibility Analysis/Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Suite 306, Charleston, S.C. 29407-4699. 246 pp.

SAFMC (South Atlantic Fishery Management Council). 1998c. Comprehensive Amendment Addressing Essential Fish Habitat in Fishery Management Plans of the South Atlantic Region (Amendment 10 to the Snapper Grouper Fishery Management Plan). South Atlantic Fishery Management Council, 1 Southpark Cir., Suite 306, Charleston, S.C. 29407-4699.

SAFMC (South Atlantic Fishery Management Council). 1998d. Comprehensive Amendment Addressing Sustainable Fishery Act Definitions and Other Required Provisions in Fishery Management Plans of the South Atlantic Region (Amendment 11 to the Snapper Grouper Fishery Management Plan). South Atlantic Fishery Management Council, 1 Southpark Cir., Suite 306, Charleston, S.C. 29407-4699. 151 pp.

SAFMC (South Atlantic Fishery Management Council). 2000a. Regulatory Amendment 8 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region.

South Atlantic Fishery Management Council, 1 Southpark Cir., Suite 306, Charleston, S.C. 29407-4699.

SAFMC (South Atlantic Fishery Management Council). 2000b. Amendment Number 12, Regulatory Impact Review, Social Impact Assessment, Initial Regulatory Flexibility Analysis and Supplemental Environmental Impact Statement for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Ste 306, Charleston, S.C. 29407-4699.

SAFMC (South Atlantic Fishery Management Council). 2003. Amendment Number 13A, Regulatory Impact Review, Initial Regulatory Flexibility Analysis and Environmental Assessment for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Suite 306, Charleston, S.C. 29407-4699.

SAFMC (South Atlantic Fishery Management Council). 2006. Amendment 13C, Final Environmental Assessment, Initial Regulatory Flexibility Analysis/Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Ste 306, Charleston, S.C. 29407-4699. 631 pp.

SAFMC (South Atlantic Fishery Management Council). 2007. Amendment 14, Final Environmental Impact Statement, Initial Regulatory Flexibility Analysis/Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405.

SAFMC (South Atlantic Fishery Management Council). 2008a. Amendment 15A, Final Environmental Impact Statement, Initial Regulatory Flexibility Analysis/Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405.

SAFMC (South Atlantic Fishery Management Council). 2008b. Amendment 15B, Final Environmental Impact Statement, Initial Regulatory Flexibility Analysis/Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405.

SAFMC (South Atlantic Fishery Management Council). 2009a. Amendment 16, Final Environmental Impact Statement, Initial Regulatory Flexibility Analysis/Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405.

SAFMC (South Atlantic Fishery Management Council). 2009b. Comprehensive Ecosystem Based Amendment 1, Final Environmental Impact Statement, Initial Regulatory Flexibility Analysis/Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement for South Atlantic Region (Amendment 19 to the Snapper Grouper FMP). South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405. 286 pp.

SAFMC (South Atlantic Fishery Management Council). 2010a. Amendment 17A, Final Environmental Impact Statement, Initial Regulatory Flexibility Analysis/Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 4055 Faber Place Drive, Ste 201, Charleston, S.C. 29405.

SAFMC (South Atlantic Fishery Management Council). 2010b. Amendment 17B, Final Environmental Impact Statement, Initial Regulatory Flexibility Analysis/Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405.

SAFMC (South Atlantic Fishery Management Council). 2010c. Regulatory Amendment 10, Final Environmental Assessment, Regulatory Flexibility Analysis/Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405.

SAFMC (South Atlantic Fishery Management Council). 2011a. Regulatory Amendment 9, Final Environmental Assessment, Regulatory Flexibility Analysis/Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405.

SAFMC (South Atlantic Fishery Management Council). 2011c. Regulatory Amendment 11, Final Environmental Assessment, Regulatory Flexibility Analysis/Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405.

SAFMC (South Atlantic Fishery Management Council). 2011c. Comprehensive Annual Catch Limit (ACL) Amendment (Amendment 25 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region). South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405.

SAFMC (South Atlantic Fishery Management Council). 2011d. Amendment 24 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405.

SAFMC (South Atlantic Fishery Management Council). 2011e. Comprehensive Ecosystem Based Amendment 2, Final Environmental Assessment, Regulatory Flexibility Analysis/Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. (Amendment 23 to the Snapper Grouper FMP). South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405.

SAFMC (South Atlantic Fishery Management Council). 2012a. Amendment 18A to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405.

SAFMC (South Atlantic Fishery Management Council). 2012b. Amendment 20A to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405.

SAFMC (South Atlantic Fishery Management Council). 2012c. Regulatory Amendment 12, Final Environmental Assessment, Regulatory Flexibility Analysis/Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405.

Appendix E. Other Applicable Law

Table of Contents

E.1	Administrative Procedures Act	1
E.2	Information Quality Act	1
E.3	Coastal Zone Management Act	2
E.4	Endangered Species Act	2
E.5	Executive Order 12612: Federalism	4
E.6	Executive Order 12866: Regulatory Planning and Review	4
E.7	Executive Order 12962: Recreational Fisheries	5
E.8	Executive Order 13089: Coral Reef Protection	5
E.9	Executive Order 13158: Marine Protected Areas	5
E.10	Marine Mammal Protection Act	6
E.11	Migratory Bird Treaty Act and Executive Order 13186	7
E.12	National Environmental Policy Act	7
E.13	Paperwork Reduction Act	8
E.14	Regulatory Flexibility Act	8
E.15	Small Business Act	8
E.16	Public Law 99-659: Vessel Safety	9

E.1 Administrative Procedures Act

All federal rulemaking is governed under the provisions of the Administrative Procedures Act (APA) (5 U.S.C. Subchapter II), which establishes a “notice and comment” procedure to enable public participation in the rulemaking process. Under the APA, NMFS is required to publish notification of proposed rules in the *Federal Register* and to solicit, consider and respond to public comment on those rules before they are finalized. The APA also establishes a 30-day wait period from the time a final rule is published until it takes effect, with some exceptions. This amendment complies with the provisions of the APA through the South Atlantic Fishery Management Council’s (South Atlantic Council) extensive use of public meetings, requests for comments and consideration of comments. The proposed rule associated with this amendment will have request for public comments, which complies with the APA.

E.2 Information Quality Act

The Information Quality Act (Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Public Law 106-443)) which took effect October 1, 2002, directed the Office of Management and Budget (OMB) to issue government-wide guidelines that “provide policy and procedural guidelines to federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information disseminated by federal agencies.” OMB directed each federal agency to issue its own guidelines, establish administrative mechanisms allowing affected persons to seek and obtain correction of information that does not comply with OMB guidelines, and report periodically to OMB on the number and nature of complaints.

The NOAA Section 515 Information Quality Guidelines require a series of actions for each new information product subject to the Information Quality Act (IQA). This document has used the best available information and made a broad presentation thereof. The process of public review of this document provides an opportunity for comment and challenge to this information, as well as for the provision of additional information.

The information contained in this document was developed using best available scientific information. Therefore, Amendment 27 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (Amendment 27) and Environmental Assessment are in compliance with the IQA.

E.3 Coastal Zone Management Act

Section 307(c)(1) of the federal Coastal Zone Management Act (CZMA) of 1972 requires that all federal activities that directly affect the coastal zone be consistent with approved state coastal zone management programs to the maximum extent practicable. While it is the goal of the South Atlantic Council to have management measures that complement those of the states, federal and state administrative procedures vary and regulatory changes are unlikely to be fully instituted at the same time. Based on the analysis of the environmental consequences of the proposed actions in **Section 4.0**, the South Atlantic Council has concluded this amendment would improve federal management of the snapper grouper fishery and is consistent to the maximum extent practicable with the Coastal Zone Management Plans of Florida, Georgia, South Carolina, and North Carolina. This determination will be submitted to the responsible state agencies under Section 307 of the CZMA administering approved Coastal Zone Management Programs in the States of Florida, South Carolina, Georgia, and North Carolina.

E.4 Endangered Species Act

The Endangered Species Act (ESA) of 1973 (16 U.S.C. Section 1531 et seq.) requires that federal agencies must ensure actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or the habitat designated as critical to their survival and recovery. The ESA requires NOAA Fisheries Service to consult with the appropriate administrative agency (itself for most marine species, and the U.S. Fish and Wildlife Service for all remaining species) when proposing an action that may affect threatened or endangered species or adversely modify critical habitat. Consultations are necessary to determine the potential impacts of the proposed action. They are concluded informally when proposed actions may affect but are “not likely to adversely affect” threatened or endangered species or designated critical habitat. Formal consultations, resulting in a biological opinion, are required when proposed actions may affect and are “likely to adversely affect” threatened or endangered species or adversely modify designated critical habitat.

NMFS completed a biological opinion (NMFS 2006) in 2006 evaluating the impacts of the continued authorization of the South Atlantic snapper grouper fishery under the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (Snapper Grouper FMP) and Amendment 13C to the Snapper Grouper FMP on ESA-

listed species (see **Section 3.0**). The opinion stated the fishery was not likely to adversely affect North Atlantic right whale critical habitat or marine mammals (see NMFS 2006 for discussion on these species). However, the opinion did state that the snapper grouper fishery would adversely affect sea turtles and smalltooth sawfish, but would not jeopardize their continued existence. An incidental take statement was issued for green, hawksbill, Kemp’s ridley, leatherback, and loggerhead sea turtles, as well as smalltooth sawfish. Reasonable and prudent measures to minimize the impact of these incidental takes were specified, along with terms and conditions to implement them. The anticipate number of sea turtle takes over consecutive 3-year periods are shown in Table E-1.

Table E-1. Three-year South Atlantic anticipated takes sea turtles by the snapper grouper fishery.

Species	Amount of Take	Total
Green	Total Take	39
	Lethal Take	14
Hawksbill	Total Take	4
	Lethal Take	3
Kemp’s Ridley	Total Take	19
	Lethal Take	8
Leatherback	Total Take	25
	Lethal Take	15
Loggerhead	Total Take	202
	Lethal Take	67

Source: NMFS 2006.

Regulations implemented through snapper grouper Amendment 15B (74 FR 31225; June 30, 2009) and updated in Comprehensive Ecosystem-Amendment 2 (76 FR 82183; December 30, 2011) required all commercial or charter/headboat vessels with a South Atlantic snapper grouper permit, carrying hook-and-line gear on board, to possess required literature and release gear to aid in the safe release of incidentally caught sea turtles and smalltooth sawfish. These regulations are thought to decrease the mortality associated with accidental interactions with sea turtles and smalltooth sawfish.

Subsequent to the June 7, 2006, biological opinion, elkhorn and staghorn coral (*Acropora cervicornis* and *Acropora palmata*) were listed as threatened. In a consultation memorandum dated July 9, 2007, NMFS concluded the continued authorization of the South Atlantic snapper grouper fishery is not likely to adversely affect these *Acropora* species. On November 26, 2008, an *Acropora* critical habitat was designated. In a consultation memorandum dated December 2, 2008, NMFS concluded the continued authorization of the snapper grouper fishery is not likely to adversely affect *Acropora* critical habitat.

Additionally, on September 22, 2011, NMFS and the U.S. Fish and Wildlife Service determined the loggerhead sea turtle population consists of nine distinct population segments (DPSs) (76 FR 58868). Previously, loggerhead sea turtles were listed as threatened species throughout their global range. The snapper grouper fishery interacts

with loggerhead sea turtles from what is now considered the Northwest Atlantic (NWA) DPS, which remains listed as threatened. Five DPSs of Atlantic sturgeon were also listed since the completion of the 2006 biological opinion. In a consultation memorandum dated February 15, 2012, NMFS concluded the continued authorization of the South Atlantic snapper grouper fishery is not likely to adversely affect the Atlantic sturgeon. The February 15, 2012, memorandum also stated that because the 2006 biological opinion had evaluated the impacts of the fishery on the loggerhead subpopulations now wholly contained within the NWA DPS, the opinion's conclusion that the fishery is not likely to jeopardize the continued existence of loggerhead sea turtles remains valid.

E.5 Executive Order 12612: Federalism

E.O. 12612 requires agencies to be guided by the fundamental federalism principles when formulating and implementing policies that have federalism implications. The purpose of the Order is to guarantee the division of governmental responsibilities between the Federal government and the States, as intended by the framers of the Constitution. No federalism issues have been identified relative to the actions proposed in this amendment and associated regulations. Therefore, preparation of a Federalism assessment under E.O. 13132 is not necessary.

E.6 Executive Order 12866: Regulatory Planning and Review

E.O. 12866, signed in 1993, requires federal agencies to assess the costs and benefits of their proposed regulations, including distributional impacts, and to select alternatives that maximize net benefits to society. To comply with E.O. 12866, NMFS prepares a Regulatory Impact Review (RIR) for all fishery regulatory actions that implement a new FMP or that significantly amend an existing plan. RIRs provide a comprehensive analysis of the costs and benefits to society associated with proposed regulatory actions, the problems and policy objectives prompting the regulatory proposals, and the major alternatives that could be used to solve the problems. The reviews also serve as the basis for the agency's determinations as to whether proposed regulations are a "significant regulatory action" under the criteria provided in E.O. 12866 and whether proposed regulations will have a significant economic impact on a substantial number of small entities in compliance with the RFA. A regulation is significant if it is likely to result in an annual effect on the economy of at least \$100,000,000 or if it has other major economic effects.

In accordance with E.O. 12866, the following is set forth by the South Atlantic Council: (1) this rule is not likely to have an annual effect on the economy of more than \$100 million or to adversely affect in a material way the economy, a sector of the economy, productivity, jobs, the environment, public health or safety, or state, local, or tribal governments or communities; (2) this rule is not likely to create any serious inconsistencies or otherwise interfere with any action take or planned by another agency; (3) this rule is not likely to materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights or obligations of recipients thereof; (4) this rule is not likely to raise novel or policy issues arising out of legal mandates, or the principles set forth in the Executive Order; and (5) this rule is not controversial.

E.7 Executive Order 12962: Recreational Fisheries

E.O. 12962 requires Federal agencies, in cooperation with States and Tribes, to improve the quantity, function, sustainable productivity, and distribution of U.S. aquatic resources for increased recreational fishing opportunities through a variety of methods including, but not limited to, developing joint partnerships; promoting the restoration of recreational fishing areas that are limited by water quality and habitat degradation; fostering sound aquatic conservation and restoration endeavors; and evaluating the effects of federally-funded, permitted, or authorized actions on aquatic systems and evaluating the effects of federally-funded, permitted, or authorized actions on aquatic systems and recreational fisheries, and documenting those effects. Additionally, the order establishes a seven member National Recreational Fisheries Coordination Council responsible for, among other things, ensuring that social and economic values of healthy aquatic systems that support recreational fisheries are considered by Federal agencies in the course of their actions, sharing the latest resource information and management technologies, and reducing duplicative and cost-inefficient programs among federal agencies involved in conserving or managing recreational fisheries. The South Atlantic Council also is responsible for developing, in cooperation with Federal agencies, States and Tribes, a Recreational Fishery Resource Conservation Plan - to include a five-year agenda. Finally, the Order requires NOAA Fisheries Service and the U.S. Fish and Wildlife Service to develop a joint agency policy for administering the ESA.

The alternatives considered in this amendment are consistent with the directives of E.O. 12962.

E.8 Executive Order 13089: Coral Reef Protection

E.O. 13089, signed by President William Clinton on June 11, 1998, recognizes the ecological, social, and economic values provided by the Nation’s coral reefs and ensures that federal agencies are protecting these ecosystems. More specifically, the Order requires federal agencies to identify actions that may harm U.S. coral reef ecosystems, to utilize their program and authorities to protect and enhance the conditions of such ecosystems, and to ensure that their actions do not degrade the condition of the coral reef ecosystem.

The alternatives considered in this amendment are consistent with the directives of E.O. 13089.

E.9 Executive Order 13158: Marine Protected Areas

E.O. 13158 was signed on May 26, 2000, to strengthen the protection of U.S. ocean and coastal resources through the use of Marine Protected Areas (MPAs). The E.O. defined MPAs as “any area of the marine environment that has been reserved by Federal, State, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein.” It directs federal agencies to work closely with state, local and non-governmental partners to create a comprehensive

network of MPAs “representing diverse U.S. marine ecosystems, and the Nation’s natural and cultural resources”.

The alternatives considered in this amendment are consistent with the directives of E.O. 13158.

E.10 Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) established a moratorium, with certain exceptions, on the taking of marine mammals in U.S. waters and by U.S. citizens on the high seas. It also prohibits the importing of marine mammals and marine mammal products into the United States. Under the MMPA, the Secretary of Commerce (authority delegated to NOAA Fisheries Service) is responsible for the conservation and management of cetaceans and pinnipeds (other than walruses). The Secretary of the Interior is responsible for walruses, sea otters, polar bears, manatees, and dugongs.

Part of the responsibility that NOAA Fisheries Service has under the MMPA involves monitoring populations of marine mammals to make sure that they stay at optimum levels. If a population falls below its optimum level, it is designated as “depleted.” A conservation plan is then developed to guide research and management actions to restore the population to healthy levels.

In 1994, Congress amended the MMPA, to govern the taking of marine mammals incidental to commercial fishing operations. This amendment required the preparation of stock assessments for all marine mammal stocks in waters under U.S. jurisdiction; development and implementation of take-reduction plans for stocks that may be reduced or are being maintained below their optimum sustainable population levels due to interactions with commercial fisheries; and studies of pinniped-fishery interactions. The MMPA requires a commercial fishery to be placed in one of three categories, based on the relative frequency of incidental serious injuries and mortalities of marine mammals. Category I designates fisheries with frequent serious injuries and mortalities incidental to commercial fishing; Category II designates fisheries with occasional serious injuries and mortalities; Category III designates fisheries with a remote likelihood or no known serious injuries or mortalities.

Under the MMPA, to legally fish in a Category I and/or II fishery, a fisherman must take certain steps. For example, owners of vessels or gear engaging in a Category I or II fishery, are required to obtain a marine mammal authorization by registering with the Marine Mammal Authorization Program (50 CFR 229.4). They are also required to accommodate an observer if requested (50 CFR 229.7(c)) and they must comply with any applicable take reduction plans.

The commercial hook-and-line components of the South Atlantic snapper grouper fishery (i.e., bottom longline, bandit gear, and handline) are listed as part of a Category III fishery under the 2012 List of Fisheries (76 FR 73912; November 29, 2011) because there have been no documented interactions between these gear and marine mammals.

E.11 Migratory Bird Treaty Act and Executive Order 13186

The Migratory Bird Treaty Act (MBTA) implemented several bilateral treaties for bird conservation between the United States and Great Britain, the United States and Mexico, the United States and Japan, and the United States and the former Union of Soviet Socialist Republics. Under the MBTA, it is unlawful to pursue, hunt, take, capture, kill, possess, trade, or transport any migratory bird, or any part, nest, or egg of a migratory bird, included in treaties between the, except as permitted by regulations issued by the Department of the Interior (16 U.S.C. 703-712). Violations of the MBTA carry criminal penalties. Any equipment and means of transportation used in activities in violation of the MBTA may be seized by the United States government and, upon conviction, must be forfeited to it.

Executive Order 13186 directs each federal agency taking actions that have, or are likely to have, a measurable negative effect on migratory bird populations to develop and implement a memorandum of understanding (MOU) with the U.S. Fish and Wildlife Service (USFWS) to conserve those bird populations. In the instance of unintentional take of migratory birds, NOAA Fisheries Service would develop and use principles, standards, and practices that will lessen the amount of unintentional take in cooperation with the USFWS. Additionally, the MOU would ensure that NEPA analyses evaluate the effects of actions and agency plans on migratory birds, with emphasis on species of concern.

An MOU was signed on August 15, 2012, which will address the incidental take of migratory birds in commercial fisheries under the jurisdiction of NOAA Fisheries Service. NOAA Fisheries Service must monitor, report, and take steps to reduce the incidental take of seabirds that occurs in fishing operations. The United States has already developed the U.S. National Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries. Under that plan many potential MOU components are already being implemented.

The alternatives considered in this amendment are consistent with the directives of E.O. 13186.

E.12 National Environmental Policy Act

Amendment 27 has been written and organized in a manner that meets National Environmental Policy Act (NEPA) requirements, and thus is a consolidated NEPA document, including a draft Environmental Assessment as described in NOAA Administrative Order (NAO) 216-6, Section 6.03.a.2.

Purpose and Need for Action

The purpose and need for this action are described in **Section 1.4**.

Alternatives

The alternatives for this action are described in **Chapter 2**.

Affected Environment

The affected environment is described in **Chapter 3**.

Impacts of the Alternatives

The impacts of the alternatives on the environment are described in **Chapter 4**.

E.13 Paperwork Reduction Act

The purpose of the Paperwork Reduction Act (PRA) is to minimize the burden on the public. The PRA is intended to ensure that the information collected under the proposed action is needed and is collected in an efficient manner (44 U.S.C. 3501 (1)). The authority to manage information collection and record keeping requirements is vested with the Director of the Office of OMB. This authority encompasses establishment of guidelines and policies, approval of information collection requests, and reduction of paperwork burdens and duplications. PRA requires NOAA Fisheries Service to obtain approval from the OMB before requesting most types of fishery information from the public.

E.14 Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) of 1980 (5 U.S.C. 601 et seq.) requires federal agencies to assess the impacts of regulatory actions implemented through notice and comment rulemaking procedures on small businesses, small organizations, and small governmental entities, with the goal of minimizing adverse impacts of burdensome regulations and record-keeping requirements on those entities. Under the RFA, NOAA Fisheries Service must determine whether a proposed fishery regulation would have a significant economic impact on a substantial number of small entities. If not, a certification to this effect must be prepared and submitted to the Chief Counsel for Advocacy of the Small Business Administration. Alternatively, if a regulation is determined to significantly impact a substantial number of small entities, the Act requires the agency to prepare an initial and final Regulatory Flexibility Analysis to accompany the proposed and final rule, respectively. These analyses, which describe the type and number of small businesses, affected, the nature and size of the impacts, and alternatives that minimize these impacts while accomplishing stated objectives, must be published in the *Federal Register* in full or in summary for public comment and submitted to the chief counsel for advocacy of the Small Business Administration. Changes to the RFA in June 1996 enable small entities to seek court review of an agency's compliance with the Act's provisions.

E.15 Small Business Act

Enacted in 1953, the Small Business Act requires that agencies assist and protect small-business interests to the extent possible to preserve free competitive enterprise. The objectives of the act are to foster business ownership by individuals who are both socially and economically disadvantaged; and to promote the competitive viability of such firms by providing business development assistance including, but not limited to, management and technical assistance, access to capital and other forms of financial assistance, business training, and counseling, and access to sole source and limited

competition federal contract opportunities, to help firms achieve competitive viability. Because most businesses associated with fishing are considered small businesses, NOAA Fisheries Service, in implementing regulations, must make an assessment of how those regulations will affect small businesses.

E.16 Public Law 99-659: Vessel Safety

Public Law 99-659 amended the Magnuson-Stevens Fishery Conservation and Management Act to require that a fishery management plan (FMP) or FMP amendment must consider, and may provide for, temporary adjustments (after consultation with the U.S. Coast Guard and persons utilizing the fishery) regarding access to a fishery for vessels that would be otherwise prevented from participating in the fishery because of safety concerns related to weather or to other ocean conditions.

No vessel would be forced to participate in South Atlantic fisheries under adverse weather or ocean conditions as a result of the imposition of management regulations proposed in this amendment.

No concerns, other than for Action 2, have been raised by South Atlantic fishermen or by the U.S. Coast Guard that the proposed management measures directly or indirectly pose a hazard to crew or vessel safety under adverse weather or ocean conditions. Action 2 addresses crew size restriction on dual-permitted snapper grouper vessels and the safety-at-sea issues that result.

In the Gulf of Mexico, Amendment 18A to the Reef Fish FMP (GMFMC 2006) modified the crew size rule to add the Coast Guard certificate of inspection (COI) provision that allowed vessels with a COI to carry the minimum crew size specified by the COI if it was greater than three. Based on the Coast Guard Diving Policies and Procedures Manual (USCG 2009), “A minimum of four personnel consisting of a diving supervisor, diver, diver tender and a standby diver are required to conduct SCUBA operations.” While this is not a regulation applicable to commercial spearfishing vessels, it provides guidance to increase the safety of the diving personnel. This action was intended to resolve a conflict between the South Atlantic Council’s maximum crew size rule and the Coast Guard’s minimum crew size requirements for vessels with a COI, which was at least four. In addition, Amendment 34 to the Reef Fish FMP (GMFMC 2012) increased the crew size limit on dual-permitted vessels operating in the Gulf of Mexico to four, with the final rule published on October 19, 2012, (77 FR 64237). Therefore, if the South Atlantic Council chooses to allow four crew members onboard dual-permitted vessels, those regulations would become consistent with those implemented previously by the Gulf of Mexico Council, which would benefit the fishermen and the administrative environment by simplifying enforcement of the crew member size limit rule, especially in the vicinity of the South Atlantic Council’s jurisdictional boundaries off southern Florida.

Additionally, the Occupational Safety and Health Administration (OSHA) regulations for SCUBA diving operations (29 CFR 1910.424 (c)) require that: 1) “a standby diver is available while the SCUBA diver is in the water” and 2) “the SCUBA diver must be

either line-tended or accompanied by another diver with continuous visual contact.” The OSHA regulations aim to establish safe operating procedures for conducting commercial SCUBA diving; however, the three-person crew limit for dual-permitted vessels impairs the crew’s ability to comply with OSHA and decreases safety at sea. Based on the OSHA regulations, if two divers are underwater spearfishing, the third crew member at the surface would need to handle the vessel and be the standby diver. If it is necessary to have two crew members at the surface, only one diver could be underwater and would need to be line-tended. Spearfishing while being line-tended could cause additional safety issues. Compliance with OSHA regulations reduces the risk of being required to address OSHA violations in the future, which is a positive impact on the administrative environment.

Alternative 3 (Preferred) would increase safety at sea and allow dual-permitted vessels to operate within the prescribed OSHA commercial diving regulations and follow the U.S. Coast Guard Diving Operation Guidelines (2009) while engaged in spearfishing.

Therefore, with the exception of Action 2, this amendment proposes neither procedures for making management adjustments due to vessel safety problems nor procedures to monitor, evaluate, or report on the effects of management measures on vessel or crew safety under adverse weather or ocean conditions.

Appendix F. Bycatch Practicability Analysis

1.1 Population Effects for the Bycatch Species

Background

Amendment 27 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (Snapper Grouper FMP) would:

- Extend the South Atlantic Fishery Management Council's (South Atlantic Council) management authority for Nassau grouper to include federal waters of the Gulf of Mexico;
- Increase the number of crew members allowed on dual-permitted snapper grouper vessels (vessels that have both a federal South Atlantic Charter/Headboat Permit for Snapper grouper and a South Atlantic Unlimited or 225-Pound Snapper grouper Permit);
- Allow captain and crew to retain bag limit quantities of all snapper grouper species;
- Modify Section I of the Framework Procedure for the Snapper grouper Fishery of the South Atlantic Region (Framework) to allow adjustments of the acceptable biological catch (ABC), the annual catch limit (ACL), and the annual catch target (ACT) via an abbreviated framework process; and
- Remove blue runner from the Snapper Grouper FMP).

These actions are intended optimize utilization of the snapper grouper resource, and expedite changes to harvest limits. None of the actions contained in Amendment 27 to the Snapper Grouper FMP (Amendment 27) are likely to significantly alter current levels of bycatch or bycatch mortality of target or non-target species.

On December 16, 2011, a notice of agency action was published in the *Federal Register* (76 FR 78245), which named the South Atlantic Council as the responsible council to manage Nassau grouper in the Gulf of Mexico, allowing the South Atlantic Council to extend their area of jurisdiction for management of Nassau grouper to include federal waters of the Gulf of Mexico. The South Atlantic Council intends to extend its management authority over Nassau grouper to include the Gulf of Mexico exclusive economic zone in Amendment 27.

Currently, there is a crew size limit of 3 for vessels associated with both a South Atlantic Charter/Headboat Permit for Snapper grouper and a South Atlantic Unlimited or 225-Pound Permit for Snapper Grouper (referred to as "dual-permitted" vessels). This crew size limit prevents a dual-permitted vessel from engaging in a charter/headboat trip while landing fish in excess of the recreational bag limits. However, a safety concern may arise under the current crew size regulations when dual-permitted vessels are spearfishing commercially without being able to properly utilize the buddy system. Therefore, the South Atlantic Council intends to increase the crew size limit to four, which would allow two persons to remain on the vessel while there are two divers in the water, thereby contributing to increased safety at sea.

During their December 2012 meeting, the South Atlantic Council discussed the issue of consistency of the regulations that prohibit retention of bag limit quantities of some snapper grouper species and not others. Therefore, Amendment 27 would remove the current bag limit

retention restrictions for captain and crew of for-hire vessels for several snapper grouper species. Making the regulations consistent for all snapper grouper species would alleviate current confusion that exists among fishermen who do not know which species the provision applies to, and will aid in law enforcement efforts. Allowing retention of all snapper grouper species by crew members of for-hire vessels would result in an overall increase in harvest of the most commonly landed snapper grouper species by approximately 0.02% for the headboat sector and 0.35% for the charterboat sector. This increase is negligible and would be unlikely to result in negative biological impacts.

Currently, the Snapper Grouper Framework allows ABCs, ACLs, and ACTs to be modified for snapper grouper species via the regulatory amendment process, which most often requires the development of an amendment and associated National Environmental Policy Act documents in addition to proposed and final rules with public comment periods. This process can be lengthy, and prevents fishery managers from quickly implementing harvest parameters in response to new scientific information when needed. The lag time between when new information becomes available and when catch levels can be adjusted has the potential to result in adverse impacts on the economic and biological environments. Therefore, the South Atlantic Council intends to allow ABCs, ACLs, and ACTs to be modified through an abbreviated framework process that would still have proposed and final rule stages, but an expedited document development process.

South Atlantic commercial snapper grouper and mackerel fishermen do not commonly target blue runner. However, the South Atlantic Council has discovered that blue runner is often caught as bycatch in the mackerel fishery, and fishermen sell incidentally caught blue runner to supplement their income. Additionally, blue runner is primarily caught in state waters off Florida, and is not generally targeted for consumption purposes. Therefore, Amendment 27 would remove blue runner from the Snapper Grouper FMP, which would remove the requirement to have a South Atlantic Snapper Grouper Unlimited or a 225-Pound Permit in order to commercially harvest blue runner in federal waters. In essence, blue runner would no longer be under federal management and blue runner harvest (commercial and recreational) would no longer be constrained by federal ACLs. Blue runner is primarily landed in state waters of Florida, where there currently are management measures in place. If this species was removed from the federal FMP then the state of Florida, as stated by their representative on the South Atlantic Council during the March 2013 meeting, would initiate begin review of blue runner rules, consider additional management measures, and may extend regulations into federal waters. The current stock status of blue runner is currently unknown and the stock has never been assessed through the Southeast, Data, Assessment, and Review (SEDAR) process.

1.2 Finfish Bycatch Mortality

Release mortality rates are unknown for most managed species. Recent Southeast Data, Assessment, and Review (SEDAR) assessments include estimates of release mortality rates based on published studies. Stock assessment reports can be found at <http://www.sefsc.noaa.gov/sedar/>.

SEDAR 17 (2008) recommended a release mortality rate for vermilion snapper of 41% for the commercial sector and 38% for the recreational. The recent stock assessment for yellowtail snapper chose a rate of 10% release mortality as an approximation for the lower bound on release mortality for yellowtail snapper (FWRI 2012). SEDAR 10 (2006) estimated release mortality rates of 40% and 25% for gag taken by commercial and recreational fishermen, respectively. SEDAR 24 (2010) used release mortality rates of 48% commercial; 41% for-hire, and 39% private recreational for red snapper. Release mortality rates were estimated as 20% for black grouper and red grouper in SEDAR 19 (2010). SEDAR 15 (2008) estimated a 20% release mortality rate for greater amberjack. In the Gulf of Mexico, SEDAR 9 (2006) assumes a 0% release mortality rate for gray triggerfish. Snowy grouper are primarily caught in water deeper than 300 feet and golden tilefish are taken at depths greater than 540 feet; therefore, release mortality of the species are probably near 100% (SEDAR 4 2004, SEDAR 25 2011). Release mortality of black sea bass is considered to be low (7% for the recreational sector and 1% for the commercial sector) (SEDAR 25 2011) indicating minimum size limits are probably an effective management tool for black sea bass. Collins et al. (1999) reported venting of the swim bladder yielded reductions in release mortality of black sea bass, and the benefits of venting increased with capture depth. The same study was analyzed by Wilde (2009) to suggest that venting increased the survival of black sea bass, although this was an exception to the general findings of Wilde's (2009) study.

SEDAR 16 (2009) provided a 20% release mortality to the MRFSS fishery where king mackerel are released alive and a 33% mortality to the headboat fishery where fish were released both dead and alive. SEDAR 28 has recently been completed and assessed Spanish mackerel and cobia stocks in the South Atlantic and the Gulf of Mexico and used the following discard mortality estimates: gillnet 100%, commercial handline 10% (5 to 15%), recreational handline 20% (10 to 30%), and shrimp trawl 100%.

Estimates of bycatch mortality for dolphin and wahoo are unknown. It is likely that most mortality is a function of hooking and handling of the fish when the hook is being removed. Regulations do not allow for the retention of females, and it is assumed they survive the trauma of capture. Estimates of bycatch mortality for blue runner are unknown; however, blue runner caught as bycatch in mackerel gillnets are unlikely to survive the trauma of capture. Blue runner caught alive by means other than gillnets are often sold as live bait, which is considered as an additional source of mortality. According to the 2011 Status of U.S. Fisheries, the overfished and overfishing status of the stock are both unknown.

Nassau grouper has not been assessed through the SEDAR process. However, according to the 2011 Status of U.S. Fisheries, Nassau Grouper is not undergoing overfishing and its overfished status is undefined. The environmental organization WildEarth Guardians submitted a petition to list Nassau grouper under the Endangered Species Act dated August 31, 2010, <http://www.nmfs.noaa.gov/pr/pdfs/petitions/grouper.pdf>. On October 10, 2012, NMFS published a "Notice of 90 Day Petition Finding, Request For Information" in the *Federal Register* [77 FR 61559]. This notice informs the public that the Secretary of Commerce has determined the WildEarth Guardians petition presents substantial scientific or commercial information indicating that the petitioned action may be warranted. Therefore, NMFS has commenced a review of the status of Nassau grouper including comprehensive review of the best

available scientific and commercial information. NMFS will conclude the review with a finding as to whether, in fact, the listing petition for Nassau grouper is warranted.

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

Expected Impacts on Bycatch for Each Amendment 27 Action

The preferred alternatives for the actions in Amendment 27 are not likely to change the current level of bycatch of target or non-target species in the South Atlantic. Extending the South Atlantic Council's area of jurisdiction for Nassau grouper into the Gulf of Mexico would not result in increased bycatch of the species, or species that co-occur with Nassau grouper. The top five snapper grouper species associated with Nassau grouper are yellowfin grouper, yellowedge grouper, speckled hind, goliath grouper, and black grouper (SAFMC 2011c). Because all harvest of Nassau grouper is already prohibited in the South Atlantic and Gulf of Mexico, no increase or decrease in bycatch of Nassau grouper would be expected while closely associated fish species are targeted. Alternately, with no directed harvest of Nassau grouper allowed, no associated bycatch of non-target species would occur. Additionally, the South Atlantic Council is currently developing Regulatory Amendment 17 to the Snapper Grouper FMP (Regulatory Amendment 17). This amendment is considering the expansion and creation of current and new marine protected areas (MPAs) intended to enhance protection for speckled hind and warsaw grouper. Because speckled hind is associated with Nassau grouper, any protections afforded to speckled hind through prohibited fishing practices in protected areas, may carry over to co-occurring species such as Nassau grouper.

As, noted previously, allowing captain and crew of for-hire vessels to retain bag limit quantities of snapper grouper species is not likely to significantly increase overall harvest of the most commonly landed snapper grouper species. Therefore, bycatch associated with any increase in directed fishing pressure on snapper grouper species by for-hire crew members would also not significantly increase. **Table 1** illustrates the type and amount of recreationally harvested snapper grouper species. These recreational harvest levels, and associated bycatch of non-target species, are not expected to change as a result of this action.

Table 1. Mean headboat, MRFSS charter and private, and commercial estimates of landings and discards in the U.S. southern Atlantic Ocean (2007-2011). Headboat, MRFSS charter and private landings are in numbers of fish (N); commercial landings are in pounds whole weight (lbs ww). Discards represent numbers of fish that were caught and released alive (B2).

Snapper Grouper FMP	HEADBOAT				MRFSS CHARTER				MRFSS PRIVATE				COMMERCIAL	
	Catch (N)	Landings (N)	Discards (N)	Discards (%)	Catch (N)	Landings (N)	Discards (N)	Discards (%)	Catch (N)	Landings (N)	Discards (N)	Discards (%)	Landings (lbs ww)	Discards (N)
Almaco jack	4,162	3,806	356	9%	3,499	2,986	513	15%	8,722	4,817	3,905	45%	204,945	106
Atlantic spadefish	162	133	29	18%	678	273	406	60%	328,703	163,363	165,339	50%	27,280	0
Banded rudderfish	18,992	16,771	2,221	12%	5,551	3,565	1,986	36%	16,725	5,536	11,189	67%	53,262	739
Bank sea bass	9,502	6,009	3,492	37%	2,287	717	1,570	69%	14,333	3,760	10,574	74%	431	0
Bar jack	235	188	47	20%	271	177	94	35%	12,766	1,943	10,823	85%	4,661	9
Black grouper	1,551	464	1,086	70%	437	265	171	39%	19,373	3,506	15,867	82%	59,427	3,031
Black sea bass	511,148	177,627	333,521	65%	234,148	74,955	159,193	68%	3,087,078	335,481	2,751,597	89%	489,471	20,132
Black snapper	0				0				0				147	32
Blackfin snapper	124	60	63	51%	179	179	0	0%	2,155	2,155	0	0%	1,567	1
Blue runner	15,984	13,091	2,893	18%	27,402	12,454	14,949	55%	1,500,410	690,337	810,073	54%	208,772	1,155
Blueline tilefish	1,732	1,709	23	1%	31,470	29,863	1,607	5%	13,288	11,065	2,224	17%	309,825	2
Coney	172	102	70	41%	120	39	82	68%	2,322	1,447	875	38%	48	4
Cottonwick	28	17	11	38%	0				133	133	0	0%	0	0
Cubera snapper	452	425	28	6%	11	11	0	0%	2,812	2,569	243	9%	5,774	0
Dog snapper	89	60	29	32%	71	71	0	0%	4,338	3,958	380	9%	431	0
Gag	8,633	3,736	4,897	57%	7,583	3,659	3,924	52%	152,690	24,732	127,958	84%	592,108	9,185
Golden tilefish	0				884	884	0	0%	5,252	5,252	0	0%	372,466	16
Gray snapper	43,494	38,141	5,353	12%	19,449	9,960	9,488	49%	1,947,298	397,987	1,549,311	80%	109,225	74,887
Gray triggerfish*	68,648	58,654	9,995	15%	44,964	36,040	8,924	20%	261,349	120,534	140,815	54%	427,642	2,091
Graysby	4,414	3,642	772	17%	562	493	68	12%	9,560	3,788	5,771	60%	239	13

Snapper Grouper FMP	HEADBOAT				MRFSS CHARTER				MRFSS PRIVATE				COMMERCIAL	
	Catch (N)	Landings (N)	Discards (N)	Discards (%)	Catch (N)	Landings (N)	Discards (N)	Discards (%)	Catch (N)	Landings (N)	Discards (N)	Discards (%)	Landings (lbs ww)	Discards (N)
Greater amberjack	6,232	4,239	1,994	32%	25,109	18,298	6,811	27%	62,809	24,011	38,798	62%	796,063	3,692
Hogfish	354	264	91	26%	72	66	6	8%	39,954	35,049	4,904	12%	50,396	265
Jolthead porgy	7,739	7,577	161	2%	1,657	1,657	0	0%	12,912	12,327	585	5%	2,586	4
Knobbed porgy	6,280	6,193	87	1%	1,036	1,036	0	0%	10,871	2,251	8,620	79%	26,042	0
Lane snapper	22,610	19,297	3,313	15%	4,591	3,724	867	19%	259,324	78,984	180,340	70%	4,105	697
Lesser amberjack	216	211	5	2%	20	20	0	0%	370	370	0	0%	15,268	110
Longspine porgy	24	18	6	25%	950	950	0	0%	358	358	0	0%	13	0
Mahogany snapper	26	24	2	7%	0				308	308	0	0%	38	819
Margate	1,240	822	419	34%	96	25	71	74%	24,086	13,289	10,797	45%	3,494	29
Misty grouper	1	1	0	0%	0				0				1,765	0
Mutton snapper	17,572	13,984	3,588	20%	21,030	11,240	9,791	47%	311,784	121,604	190,181	61%	77,400	4,089
Ocean triggerfish	214	202	12	6%	319	289	29	9%	5,643	2,462	3,181	56%	0	0
Queen snapper	0				8	8	0	0%	0				5,080	2
Red grouper	11,109	2,374	8,735	79%	11,246	5,308	5,938	53%	87,491	34,356	53,136	61%	480,195	6,793
Red hind	667	600	67	10%	76	45	31	40%	3,478	1,525	1,953	56%	11,883	147
Red porgy	56,191	34,003	22,189	39%	19,240	13,138	6,102	32%	26,949	16,922	10,027	37%	179,256	27,671
Rock hind	2,820	2,312	508	18%	104	88	16	16%	4,726	1,592	3,134	66%	20,289	7
Rock sea bass	6	0	6	100%	546	213	333	61%	11,434	4,502	6,932	61%	648	0
Sailors choice	72	67	5	7%	1,106	106	1,000	90%	44,277	20,098	24,180	55%	0	0
Sand tilefish	1,348	903	444	33%	6,496	803	5,693	88%	30,030	6,524	23,506	78%	813	227
Saucereye porgy	324	323	1	0%	42	42	0	0%	197	197	0	0%	0	0
Scamp	9,333	6,084	3,249	35%	3,770	2,363	1,407	37%	14,391	7,714	6,676	46%	281,807	2,723

Snapper Grouper FMP	HEADBOAT				MRFSS CHARTER				MRFSS PRIVATE				COMMERCIAL	
	Catch (N)	Landings (N)	Discards (N)	Discards (%)	Catch (N)	Landings (N)	Discards (N)	Discards (%)	Catch (N)	Landings (N)	Discards (N)	Discards (%)	Landings (lbs ww)	Discards (N)
Schoolmaster	404	326	78	19%	5	5	0	0%	11,192	4,764	6,428	57%	231	0
Scup	12,284	10,176	2,109	17%	110	48	62	57%	1,023	690	333	33%	0	0
Silk Snapper	1,187	1,080	107	9%	1,619	1,404	215	13%	445	133	312	70%	12,559	1
Snowy grouper	139	95	44	32%	1,615	1,344	271	17%	1,188	945	243	20%	93,418	270
Tomtate	122,805	49,366	73,439	60%	23,747	11,666	12,081	51%	472,666	121,982	350,684	74%	511	2,622
Vermilion snapper	368,271	253,588	114,683	31%	101,627	63,516	38,111	38%	220,406	93,319	127,087	58%	1,086,090	36,825
White grunt*	193,622	163,281	30,341	16%	44,894	32,172	12,722	28%	392,839	178,805	214,034	54%	149,521	564
Whitebone porgy	5,064	4,809	256	5%	1,699	1,638	61	4%	12,377	10,923	1,454	12%	18	17
Yellowedge grouper	7	5	3	38%	30	30	0	0%	116	116	0	0%	19,438	0
Yellowfin grouper	72	59	13	18%	0				0				5,701	6
Yellowmouth grouper	69	62	7	10%	57	57	0	0%	246	246	0	0%	54	0
Yellowtail snapper	128,593	95,947	32,646	25%	33,793	26,675	7,119	21%	418,591	190,098	228,494	55%	949,257	128,323
Total	1,666,419	1,002,925	663,494		686,277	374,565	311,712		9,871,788	2,768,826	7,102,961		7,141,657	327,308

Sources: MRFSS data from SEFSC Recreational annual catch limit (ACL) Dataset (July 2012), Headboat data from SEFSC Headboat Logbook CRNF files (expanded; July 2012), Commercial landings data from SEFSC Commercial ACL Dataset (July 2012), with discard estimates from expanded SEFSC Commercial Discard Logbook (July 2012).

Note: Commercial discard estimates are for vertical line gear only. The use of MRFSS data has been recommended until ACLs are recomputed using recalibrated MRFSS->MRIP data.

Goliath grouper, Nassau grouper, Warsaw grouper, Speckled hind, and Red snapper are excluded from **Table 1** since they are prohibited species, and landings records are not available for all the years 2007-2011). Wreckfish landings are confidential.

*Commercial king mackerel includes "king and cero mackerel" category; commercial gray triggerfish includes "triggerfishes, unclassified" category; commercial white grunt includes "grunts, unclassified" category.

Allowing one additional crew member to work onboard dual-permitted fishing vessels is also not likely to alter the current level of bycatch or bycatch mortality associated with commercial diving. Spearfishing is regarded as clean fishing gear with little to no bycatch. Thus, allowing enough crew members to work onboard dual-permitted fishing vessels to utilize the buddy system while diving would increase safety at sea with no expected impacts on bycatch of target or non-target fish species. Updating the Framework Procedure for the Snapper grouper Fishery would allow timelier implementation of modifications to harvest limits and targets when needed. This action is administrative in nature and is unlikely to increase or decrease bycatch of target or non-target species in the snapper grouper fishery.

Removing blue runner from the Snapper Grouper FMP is not likely to result in increased or decreased bycatch of blue runner or other co-occurring species in the South Atlantic. This action proposes administrative changes to allow the harvest of blue runner to continue as it has been taking place for over a decade. Hence, no significant impacts to bycatch over the status quo would be expected.

According to the bycatch information for mackerel gillnets, menhaden, smooth dogfish sharks, and spiny dogfish sharks were the three most frequently discarded species (SAFMC 2004). There were no interactions of sea turtles or marine mammals reported (Poffenberger 2004). The Southeast Region Current Bycatch Priorities and Implementation Plan FY04 and FY05 (2005) reported that 26 species of fish were caught as bycatch in the Gulf of Mexico king mackerel gillnet sector. Of these, 34% were reported to be released dead, 59% released alive, and 6% undetermined. Bycatch was not reported for the Gulf of Mexico Spanish mackerel sector. In the South Atlantic Spanish mackerel sector, 51 species were reported as bycatch with approximately 81% reported as released alive (SERO 2005). For the South Atlantic king mackerel hook and line sector, 92.7% were reported as released alive with 6% undetermined (SERO 2005). Bycatch was not reported separately for gillnets and hook-and-line gear. Additionally, the supplementary discard program to the logbook reporting requirement shows no interactions of gill-net gear with marine mammals or birds.

Past, Current, and Future Actions to Prevent Bycatch and Improve Monitoring of Harvest, Discards, and Discard Mortality.

Regulations implemented by CE-BA 1 (SAFMC 2009b) could reduce bycatch as well as protect deepwater coral habitat. CE-BA 1 (SAFMC 2009b) created allowable gear areas for the golden crab fishery and shrimp fishery access areas for the deepwater shrimp fishery. The establishment of these areas allows for the continuation of these fisheries in their historical fishing grounds with little or no negative impacts to protected deepwater coral habitat.

The Comprehensive Ecosystem-Based Amendment 2 (CE-BA 2; SAFMC 2011e) included actions that modified management of octocorals through the establishment of an ACL; modified management of special management zones (SMZs) off South Carolina; revised sea turtle release gear requirements for the snapper grouper fishery; and designated new essential fish habitat (EFH) and EFH-Habitat Areas of Particular Concern (HAPCs) in the South Atlantic. Since the octocorals are almost exclusively harvested one at a time by divers, there is very little bycatch. CE-BA 2 also included an action that limited harvest and possession of snapper grouper and

CMP species to the bag limit in SMZs off South Carolina. This action could reduce bycatch of regulatory discards around SMZs by restricting commercial harvest in the area, but it would probably have very little effect on the magnitude of overall bycatch of snapper grouper and coastal migratory species in the South Atlantic.

Other actions have been taken in recently implemented amendments that could reduce bycatch of and bycatch mortality of federally-managed species in the South Atlantic. Amendment 13C to the Snapper grouper FMP (SAFMC 2006) required the use of 2” mesh in the back panel of black sea bass pots, which has likely reduced the magnitude of regulatory discards. Amendment 15B to the Snapper grouper FMP (SAFMC 2008b) implemented an action that could reduce the impacts from incidental bycatch of sea turtles and smalltooth sawfish. Amendment 16 to the Snapper grouper FMP (SAFMC 2009a) required the use of dehooking devices, which could help reduce bycatch mortality of vermilion snapper, black sea bass, gag, red grouper, black grouper, and red snapper. Dehooking devices can allow fishermen to remove hooks with greater ease and more quickly from snapper grouper species without removing the fish from the water. If a fish does need to be removed from the water, dehookers could still reduce handling time in removing hooks, thus increasing survival (Cooke et al. 2001). Furthermore, Amendment 17A to the Snapper grouper FMP (SAFMC 2010a) required circle hooks for snapper grouper species north of 28 degrees latitude, which is expected to reduce bycatch mortality of snapper grouper species. Amendment 17B to the Snapper grouper FMP (Amendment 17B; SAFMC 2010b) established ACLs and accountability measures (AMs) and address overfishing for eight species in the snapper grouper management complex currently listed as undergoing overfishing: golden tilefish, snowy grouper, speckled hind, warsaw grouper, black sea bass, gag, red grouper, and vermilion snapper, in addition to black grouper.

The Comprehensive ACL Amendment (SAFMC 2011c) implemented ACLs and AMs for species not undergoing overfishing in the FMPs for snapper grouper, dolphin and wahoo, golden crab and *Sargassum*, in addition to other actions such as allocations and establishing annual catch targets for the recreational sector. The Comprehensive ACL Amendment (SAFMC 2011 c) also established additional measures to reduce bycatch in the snapper grouper fishery with the establishment of species complexes based on biological, geographic, economic, taxonomic, technical, social, and ecological factors. ACLs were assigned to these species complexes, and when the ACL for the complex is met or projected to be met, fishing for species included in the entire species complex is prohibited for the fishing year. ACLs and AMs will likely reduce bycatch of target species and species complexes as well as incidentally caught species.

Amendment 18A to the Snapper grouper FMP (SAFMC 2012a), included actions that could reduce bycatch of black sea bass and the potential for interactions with protected species. Actions in Amendment 18A will limit the number of participants in the black sea bass pot sector, require fishermen bring pots back to port at the completion of a trip, and limit the number of pots a fishermen can deploy. Amendment 24 to the Snapper grouper FMP (SAFMC 2011d) established a rebuilding plan for red grouper, which is overfished and undergoing overfishing. Amendment 24 (SAFMC 2011d) also established ACLs and AMs for red grouper, which could help to reduce bycatch of red grouper and co-occurring species.

Other amendments are currently under development, which could reduce bycatch of snapper-grouper species. Amendment 18B to the Snapper grouper FMP, which has been approved by NMFS with its final rule effective on May 23, 2013 (78 FR 23858 April 23, 2013) includes an action to establish an endorsement program for the commercial golden tilefish longline sector, which could have positive effects for habitat and protected species. Regulatory Amendment 14 to the Snapper grouper FMP includes actions that could adjust management measures for a number of snapper grouper species, some of which could reduce the magnitude of discards. Regulatory Amendment 15 to the Snapper grouper FMP, which has been approved by the South Atlantic Council, includes actions for yellowtail snapper and gag that are expected to reduce bycatch of snapper grouper species. Regulatory Amendment 17 to the Snapper grouper FMP includes actions that affect MPAs, and could reduce bycatch of many snapper grouper species, especially speckled hind and warsaw grouper.

The South Atlantic Council's For-Hire Reporting Amendment, which has been approved by the South Atlantic Council, would change the reporting frequency by headboats from monthly to weekly, and require that reports be submitted electronically. The action is expected to provide more timely information on landings and discards. Improved information on landings would help ensure ACLs are not exceeded. Furthermore, more timely and accurate information would be expected to provide a better understanding of the composition and magnitude of catch and bycatch, enhance the quality of data provided for stock assessments, increase the quality of assessment output, and lead to better decisions regarding additional measures to reduce bycatch. Management measures that affect gear and effort for a target species can influence fishing mortality in other species. Therefore, enhanced catch and bycatch monitoring would provide better data that could be used in multi-species assessments.

In addition to the previously-mentioned South Atlantic For-Hire Reporting Amendment, the South Atlantic Council is also working toward improving the timeliness and accuracy of harvest data reported by charter vessels and commercial vessels operating the South Atlantic Region. In the near future, the South Atlantic Council will develop a joint amendment with the Gulf of Mexico Council to require that all federally-permitted charter vessels reporting landings information to the Southeast Fisheries Science Center (SEFSC) electronically. This reporting system is currently being developed by the SEFSC, and both Councils will pursue regulatory modifications to require electronic reporting by charter vessels in 2014. Additionally, the Gulf of Mexico and South Atlantic Councils will also begin development of a joint amendment to require that all federally-permitted commercial fishing vessels in the southeast also report their landings information electronically. These future actions will help to improve in-season monitoring for snapper grouper species affected by Amendment 27, as well as all other federally-managed species in the southeast region.

Additional information on fishery related actions from the past, present, and future considerations can be found in **Chapter 6**.

1.4 Ecological Effects Due to Changes in the Bycatch

The ecological effects of bycatch mortality are the same as fishing mortality from directed fishing efforts. If not properly managed and accounted for, either form of mortality could potentially reduce stock biomass to an unsustainable level. As mentioned in the above section, the South Atlantic For-Hire Reporting Amendment includes an action to enhance landings data reporting in the headboat sector. Better bycatch and discard data would provide a better understanding of the composition and magnitude of catch and bycatch, enhance the quality of data provided for stock assessments, increase the quality of assessment output, and lead to better decisions regarding additional measures to reduce bycatch. Management measures that affect gear and effort for a target species can influence fishing mortality in other species. Therefore, enhanced catch and bycatch monitoring would provide better data that could be used in multi-species assessments. These improvements in harvest monitoring efforts in the headboat sector will also be extended to the charter and commercial sectors of all fisheries in the southeast region.

Ecosystem interactions among coastal migratory pelagic (CMP) species in the marine environment are poorly known. Most species are migratory, interacting in various combinations of species groups at different levels on a seasonal basis. With the current state of knowledge, it is not possible to evaluate the potential ecosystem wide impacts of these species interactions, or the ecosystem impacts from the limited mortality estimated to occur from mackerel fishing effort.

1.5 Changes in the Bycatch of Other Fish Species and Resulting Population and Ecosystem Effects

Amendment 27 is not expected to result in major changes in bycatch of other fish species. Extending the South Atlantic Council's jurisdiction for Nassau grouper to include the Gulf of Mexico, allowing four crew members to work onboard dual-permitted vessels, and updating the Framework Procedure for the Snapper grouper Fishery would not impact bycatch or bycatch mortality of any target or non-target species.

Allowing captain and crew of for-hire vessels to retain bag limit quantities of all snapper grouper species may reduce discard mortality by a small degree as crewmembers would be allowed to retain several snapper-grouper species rather than being required to discard them. The discard mortality rates of various snapper grouper species are discussed in **Section 1.2** of this bycatch practicability analysis. Removing blue runner from the Snapper grouper FMP is not likely to alter the current level of non-target species that are caught while fishing for blue runner.

1.6 Effects on Marine Mammals and Birds

Under Section 118 of the Marine Mammal Protection Act (MMPA), NMFS must publish, at least annually, a List of Fisheries (LOF) that places all U.S. commercial fisheries into one of three categories based on the level of incidental serious injury and mortality of marine mammals that occurs in each fishery. Of the gear utilized within the snapper grouper fishery, only the black sea bass pot is considered to pose an entanglement risk to marine mammals. The southeast U.S. Atlantic black sea bass pot fishery is included in the grouping of the Atlantic mixed species trap/pot fisheries, which the 2013 proposed LOF classifies as a Category II (78 FR 23708; April 22, 2013). Gear types used in these fisheries are determined to have occasional incidental mortality and serious injury of marine mammals. For the South Atlantic snapper grouper fishery, the best available data on protected species interactions are from the SEFSC Supplementary Discard Data Program (SDDP) initiated in July of 2000. The SDDP sub-samples 20% of the vessels with an active permit. Since August 2001, only three interactions with marine mammals have been documented; each was taken by handline gear and each released alive (McCarthy SEFSC database). The longline and hook-and-line gear components of the snapper grouper in the South Atlantic are classified in the 2013 proposed LOF (78 FR 23708; April 22, 2013) as Category III fisheries.

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

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

Of the gear used in the CMP fishery only the gillnet gear components pose entanglement risks to Northern right, fin, and humpback whales. However, there are no documented interactions between CMP gillnets and large whales. Large whale entanglements have been documented in other gillnet fisheries. Both the Southeast Atlantic gillnet fishery and the Gulf of Mexico gillnet fishery are listed as category II fisheries (78 FR 23708; April 22, 2013). Neither fishery has any documented interactions with large whales or any other marine mammal species, but NMFS classifies these fisheries as Category II based on analogy (i.e., similar risk to marine mammals) with other gillnet fisheries. North Carolina requires 7% observer coverage for the large mesh

estuarine gillnet fishery in state waters. Since 1993, an observer program has been underway to estimate catch and bycatch in the directed shark gillnet fisheries along the southeastern U.S. Atlantic coast. Several vessels that have Highly Migratory Species Permits also hold Spanish Mackerel Permits or King Mackerel Permits. Therefore, some portion of mackerel harvest with gillnet gear is observed by shark gillnet observers.

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

Fishing effort reductions have the potential to reduce the amount of interactions between the fishery and marine mammals and birds. Although, the Bermuda petrel and roseate tern occur within the action area, these species are not commonly found and neither has been described as associating with vessels or having had interactions with the snapper grouper fishery. Thus, it is believed that the snapper grouper or coastal migratory pelagic fisheries are not likely to negatively affect the Bermuda petrel and the roseate tern.

Additionally, the establishment of commercial and recreational ACLs for species in the FMPs for snapper grouper, dolphin and wahoo, CMP, and golden crab in April 2012, through the Comprehensive ACL Amendment (SAFMC 2011c) could reduce or cap bycatch mortality on protected species, including marine mammals and birds.

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

The preferred alternatives for the actions in Amendment 27 would extend the South Atlantic Council's area of jurisdiction for Nassau grouper into Gulf of Mexico waters, modify the limit on crew members of dual-permitted vessels, modify the restriction on retention of bag limit quantities of snapper grouper species by crew members of federally-permitted for-hire vessels, update the Framework Procedure for the Snapper grouper Fishery to allow harvest limits to be modified via an abbreviated framework process, and remove blue runner from the Snapper grouper FMP. Therefore, there could be costs related to fishing, processing, disposal, and marketing of the species affected by Amendment 27 (see economic effects in **Chapter 4** and **Appendix G** for the Regulatory Impact Review).

1.8 Changes in Fishing Practices and Behavior of Fishermen

Actions proposed in Amendment 27 could result in a modification of fishing practices by the for-hire and commercial sectors, but are likely to have little effect on the overall magnitude of discards. Harvest of Nassau grouper is already prohibited in South Atlantic and Gulf of Mexico waters; extending the South Atlantic Council's management authority for the species to include

the Gulf of Mexico would not change the prohibition on harvest. Therefore, no changes in fishing practices or fishermen behavior are expected as a result of that action. Allowing four crew members to work onboard dual-permitted vessels in the South Atlantic may change fishing behavior by allowing commercial diving operations to utilize the buddy system to reduce the risk of accidents and injury while fishing. Allowing four crew members to work onboard dual-permitted vessels may also increase efficiency of fishing operations because additional crew could expedite handling and processing of any fish caught.

Allowing retention of bag limit quantities of all snapper grouper species by captain and crew of federally-permitted for-hire vessels could change the behavior of the fishermen. Allowing retention of snapper grouper species by crew members could potentially result in fewer discarded fish because more people on the vessel would be allowed to retain the bag limit. Updating the Framework Procedure for the Snapper grouper Fishery to allow modifications to harvest limits and targets to be made via an abbreviated framework process is a largely administrative action and is not likely to change fishing practices or behavior. Removing blue runner from the FMP is not expected to result in any changes in fishing behavior because fishermen would likely continue to fish for blue runner for use as bait fish as they have been for many years.

Social effects of actions proposed in Amendment 27 are addressed in **Chapter 4** of Amendment 27.

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

Research and monitoring is ongoing to understand the effectiveness of proposed management measure and their effect on bycatch. In 1990, the SEFSC initiated a logbook program for vessels with federal permits in the snapper grouper fishery from the Gulf of Mexico and South Atlantic. In 1999, logbook reporting was initiated for vessels catching king and Spanish mackerel (Gulf of Mexico and South Atlantic Fishery Management Councils). Approximately 20% of commercial fishermen from snapper grouper, dolphin wahoo, and CMP fisheries are asked to fill out discard information in logbooks; however, a greater percentage of fishermen could be selected with emphasis on individuals that dominate landings. Recreational discards are obtained from the MRIP and logbooks from the NMFS headboat program. The preferred alternatives in Amendment 27 would not change any ongoing or require any new research, administrative, or enforcement costs.

Additional data collection activities for the recreational sector of the snapper grouper, dolphin wahoo, and CMP fisheries are being considered by the South Atlantic Council that could allow for a better monitoring of bycatch in the future. The South Atlantic Council is also developing an amendment to improve commercial logbook reporting for these fisheries. Some observer information for the snapper grouper fishery has been provided by the SEFSC, Marine Fisheries Initiative, and Cooperative Research Programs (CRP), but more is desired for the snapper grouper, dolphin wahoo, and CMP fisheries. Currently, for the snapper grouper fishery, headboats are required to carry observers, if selected. Further, the South Atlantic Council is

developing an amendment that could require vessel monitoring systems (VMS) for snapper-grouper vessels, which would be expected to improve data quality.

Cooperative research projects between science and industry are being used to a limited extent to collect bycatch information on the snapper grouper fishery in the South Atlantic. For example, Harris and Stephen (2005) characterized the entire (retained and discarded) catch of reef fishes from a selected commercial fisherman in the South Atlantic including total catch composition and disposition of fishes that were released. The Gulf and South Atlantic Fisheries Foundation, Inc. (Foundation) conducted a fishery observer program within the snapper grouper vertical hook-and-line (bandit rig) fishery of the South Atlantic United States. Through contractors they randomly placed observers on cooperating vessels to collect a variety of data quantifying the participation, gear, effort, catch, and discards within the fishery.

In the spring 2010, Archipelago Marine Research Ltd. worked with North Carolina Sea Grant and several South Atlantic Unlimited Snapper grouper Permit holders to test the effectiveness of electronic video monitoring to measure catch and bycatch. A total of 93 trips were monitored with video monitoring, 34 by self-reported fishing logbooks, and 5 by observers. Comparisons between electronic video monitoring data and observer data showed that video monitoring was a reliable source of catch and bycatch data.

Research funds for observer programs, as well as gear testing and testing of electronic devices are also available each year in the form of grants from the Foundation, Marine Fisheries Initiative, Saltonstall-Kennedy program, and the CRP. Efforts are made to emphasize the need for observer and logbook data in requests for proposals issued by granting agencies. A condition of funding for these projects is that data are made available to the Councils and NMFS upon completion of a study.

Stranding networks have been established in the Southeast Region. The NMFS SEFSC is the base for the Southeast United States Marine Mammal Stranding Program (<http://sero.nmfs.noaa.gov/pr/strandings.htm>). NMFS authorizes organizations and volunteers under the MMPA to respond to marine mammal strandings throughout the United States. These organizations form the stranding network whose participants are trained to respond to, and collect samples from live and dead marine mammals that strand along southeastern United State beaches. The SEFSC is responsible for: coordinating stranding events; monitoring stranding rates; monitoring human caused mortalities; maintaining a stranding database for the southeast region; and conducting investigations to determine the cause of unusual stranding events including mass strandings and mass mortalities (<http://www.sefsc.noaa.gov/species/mammals/strandings.htm>).

The Southeast Regional Office and the SEFSC participate in a wide range of training and outreach activities to communicate bycatch related issues. The NMFS Southeast Regional Office issues public announcements, Southeast Fishery Bulletins, or News Releases on different topics, including use of turtle exclusion devices, bycatch reduction devices, use of methods and devices to minimize harm to turtles and sawfish, information intended to reduce harm and interactions with marine mammals, and other methods to reduce bycatch for the convenience of constituents in the southern United States. These are mailed out to various organizations,

government entities, commercial interests and recreational groups. This information is also included in newsletters and publications that are produced by NMFS and the various regional fishery management councils. Announcements and news released are also available on the internet and broadcasted over NOAA weather radio.

Additional administrative and enforcement efforts would help to implement and enforce fishery regulations. The South Atlantic Council is considering requiring VMS on all commercial snapper grouper vessels that would greatly improve enforcement. NMFS established the South East Fishery-Independent Survey in 2010 to strengthen fishery-independent sampling efforts in southeast U.S. waters, addressing both immediate and long-term fishery-independent data needs, with an overarching goal of improving fishery-independent data utility for stock assessments. Meeting these data needs is critical to improving scientific advice to the management process, ensuring overfishing does not occur, and successfully rebuilding overfished stocks on schedule.

1.10 Changes in the Economic, Social, or Cultural Value of Fishing Activities and Non-Consumptive Uses of Fishery Resources

Preferred management measures, and any changes in economic, social, or cultural values are discussed in **Chapter 4** of Amendment 27.

1.11 Changes in the Distribution of Benefits and Costs

The distribution of benefits and costs expected from actions in Amendment 27 are discussed in **Chapter 3**. Economic and social effects of actions proposed in the Amendment 27 are addressed in **Chapter 4** of this document.

1.12 Social Effects

The social effects of all the measures are described in **Chapter 4** of Amendment 27.

1.13 Conclusion

This section evaluates the practicability of taking additional action to minimize bycatch and bycatch mortality using the ten factors provided at 50 CFR section 600.350(d)(3)(i). In summary, the preferred alternatives for Amendment 27 are not likely to significantly contribute or detract from the current level of bycatch in the snapper grouper fishery. The South Atlantic Council, NMFS, and the SEFSC have implemented and plan to implement numerous management measures and reporting requirements that have improved, or are likely to improve monitoring efforts of discards and discard mortality. Therefore, no additional action is needed to minimize bycatch or bycatch mortality within the snapper grouper fishery.

References

- Alsop, III, F. J. 2001. Smithsonian Handbooks: Birds of North America eastern region. DK Publishing, Inc. New York, NY.
- Collins, M. R., J. C. McGovern, G. R. Sedberry, H. S. Meister, and R. Pardieck. 1999. Swim bladder deflation in black sea bass and vermilion snapper: potential for increasing post-release survival. *North American Journal of Fisheries Management* 19: 828-832.
- Cooke, S.J., D.P. Philipp, K.M. Dunmall, and J.F. Schreer. 2001. The influence of terminal tackle on injury, handling time, and cardiac disturbance of rock bass. *N. Am. Jour. Fish. Mgmt.* 21: 333-342.
- FWRI (Fish and Wildlife Research Institute). 2012. The 2012 Stock Assessment Report for Yellowtail Snapper in the South Atlantic and Gulf of Mexico. Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute, 100 Eighth Ave Southeast, St. Petersburg, Florida 33701.
- Harris, P.J. and J. Stephen. 2005. Final Report Characterization of commercial reef fish catch and bycatch off the southeast coast of the United States. CRP Grant No. NA03NMF4540416
- NMFS (National Marine Fisheries Service). 2006. Endangered Species Act Section 7 consultation on the Continued Authorization of Snapper Grouper Fishing under the South Atlantic Snapper Grouper Fishery Management Plan (RFFMP) and Proposed Amendment 13C. Biological Opinion. June 7.
- Poffenberger, J. 2004. A Report on the Discard Data from the Southeast Fisheries Science Center's Coastal Fisheries Logbook Program.
- SAFMC (South Atlantic Fishery Management Council). 2006. Amendment 13C, Final Environmental Assessment, Initial Regulatory Flexibility Analysis/Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 1 Southpark Cir., Ste 306, Charleston, S.C. 29407-4699. 631 pp. 15B
- SAFMC (South Atlantic Fishery Management Council). 2009a. Amendment 16, Final Environmental Impact Statement, Initial Regulatory Flexibility Analysis/Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405.17A
- SAFMC (South Atlantic Fishery Management Council). 2009b. Comprehensive Ecosystem Based Amendment 1, Final Environmental Impact Statement, Initial Regulatory Flexibility Analysis/Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement for South Atlantic Region (Amendment 19 to the Snapper Grouper FMP). South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405. 286 pp.

SAFMC (South Atlantic Fishery Management Council). 2010b. Amendment 17B, Final Environmental Impact Statement, Initial Regulatory Flexibility Analysis/Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405.

SAFMC (South Atlantic Fishery Management Council). 2011c. Comprehensive Annual Catch Limit (ACL) Amendment (Amendment 25 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region). South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405.

SAFMC (South Atlantic Fishery Management Council). 2011d. Amendment 24 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405.

SAFMC (South Atlantic Fishery Management Council). 2011e. Comprehensive Ecosystem Based Amendment 2, Final Environmental Assessment, Regulatory Flexibility Analysis/Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement for the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. (Amendment 23 to the Snapper Grouper FMP). South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405.

SAFMC (South Atlantic Fishery Management Council). 2012a. Amendment 18A to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fishery Management Council, 4055 Faber Place, Ste 201, North Charleston, S.C. 29405.

SEDAR 4. 2004. Stock Assessment Report 1: South Atlantic Deepwater Snapper Grouper Complex. Available from the SEDAR website: www.sefsc.noaa.gov/sedar/

SEDAR 10. 2006. Stock Assessment Report: South Atlantic Gag. Available from the SEDAR website: www.sefsc.noaa.gov/sedar/

SEDAR 9. 2006. Stock Assessment Report. Gulf of Mexico Gray Triggerfish, Greater Amberjack, and Vermilion Snapper. Available from the SEDAR website: www.sefsc.noaa.gov/sedar/

SEDAR 15. 2008. Stock Assessment Report 1 (revised March, 2009). South Atlantic Red Snapper. Available from the SEDAR website: www.sefsc.noaa.gov/sedar/

SEDAR 17. 2008. Stock Assessment Report. South Atlantic Vermilion Snapper. Available from the SEDAR website: www.sefsc.noaa.gov/sedar/

SEDAR 16. 2009. Stock Assessment Report: South Atlantic and Gulf of Mexico King Mackerel. Available from the SEDAR website: www.sefsc.noaa.gov/sedar/

SEDAR 24. 2010. Stock Assessment Report. South Atlantic Red Snapper. Available from the SEDAR website: www.sefsc.noaa.gov/sedar/

SEDAR 19. 2010. Stock Assessment Report. South Atlantic and Gulf of Mexico Black Grouper and South Atlantic Red Grouper. Available from the SEDAR website: www.sefsc.noaa.gov/sedar/

SEDAR 25. 2011. Stock Assessment Report: South Atlantic Black Sea Bass and Tilefish. Available from the SEDAR website: www.sefsc.noaa.gov/sedar/

SEDAR 28. 2012. Stock Assessment Report: Gulf of Mexico and South Atlantic Spanish mackerel and cobia. Available from the SEDAR website: www.sefsc.noaa.gov/sedar/

SERO (Southeast Regional Office). 2005. The Southeast Region Current Bycatch Priorities and Implementation Plan FY05 and FY05.

Wilde, G.R. 2009. Does venting promote survival of released fish? Fisheries Management. 34(1): 20-28.

Appendix G. Regulatory Impact Review

The National Marine Fisheries Service (NMFS) requires a Regulatory Impact Review (RIR) for all regulatory actions that are of public interest. The RIR does three things: (1) It provides a comprehensive review of the level and incidence of impacts associated with a regulatory action; (2) it provides a review of the problems and policy objectives prompting the regulatory proposals and an evaluation of the major alternatives which could be used to solve the problem; and (3) it ensures that the regulatory agency systematically and comprehensively considers all available alternatives so that the public welfare can be enhanced in the most efficient and cost effective way.

The RIR also serves as the basis for determining whether any proposed regulations are a "significant regulatory action" under certain criteria provided in Executive Order 12866 (E.O. 12866) and whether the approved regulations will have a "significant economic impact on a substantial number of small business entities" in compliance with the Regulatory Flexibility Act of 1980 (RFA).

Problems and Objectives

The purpose and need, issues, problems, and objectives of this action are presented in **Chapter 1** of Amendment 27 to the Snapper Grouper Fishery of the South Atlantic Region (Amendment 27), and are incorporated herein by reference.

Methodology and Framework for Analysis

This RIR assesses management measures from the standpoint of determining the resulting changes in costs and benefits to society. To the extent practicable, the net effects of the proposed measures for an existing fishery should be stated in terms of producer and consumer surplus, changes in profits, and employment in the direct and support industries. Where figures are available, they are incorporated into the analysis of the economic impacts of the different actions and alternatives.

Description of the Fishery

A description of the South Atlantic snapper grouper fishery is contained in **Chapter 3** of Amendment 27 and is incorporated herein by reference.

Effects of the Management Measures

Action 1, Alternative 2 (Preferred). The current ACL for Nassau grouper in both the South Atlantic and Gulf of Mexico is zero. If the South Atlantic Council's jurisdiction for Nassau grouper extends to Gulf of Mexico, it is expected that there will be no additional economic effects as Nassau grouper are not currently targeted, nor can they be harvested in either the South Atlantic or Gulf of Mexico.

Action 2, Alternative 3 (Preferred) is not anticipated to affect the harvest or other customary uses of snapper grouper species. Therefore, economic effects to the overall economy are not anticipated from the implementation of the alternative.

Action 3, Alternative 2 (Preferred) would be expected to result in some consumer surplus and possibly net operating revenue increases. Based on a bag limit analysis done for this amendment by SERO-LAPP (Farmer, pers. comm., 2013) and considering only the period 2008-2011, **Alternative 2 (Preferred)** would result in additional 51 fish kept on charter trips and 138 additional fish kept on headboat trips. The CS values of these fish would be \$3,887 (2011 dollars) for charter trips and \$10,623 (2011 dollars) for headboat trips. It is not possible to determine the change in trips and NOR arising from these increases in harvest without making much stronger assumptions than those for estimating the CS effects. It may only be noted that each additional angler trip would generate NOR values of \$157.27 (2011 dollars) for charter boats and \$70.25 (2011 dollars) for headboats.

Action 4, Alternative 2 (Preferred) could result in positive or negative economic effects. When stock assessments indicate ACLs can be increased, quick adjustments for ACLs would allow for positive economic effects without negatively affecting the sustainability of the stock. On the other hand, when stock assessments indicate large decreases in the ACLs are needed, it is likely that negative economic effects would result from moving quickly with a decrease in a catch level. The size of the economic effects cannot be estimated without knowing how the ACL or ACT for a given species will change.

Action 5, Alternative 2 (Preferred) would not have a negative economic effect on fishermen because there will no longer be an ACL for blue runner that will constrain future catches.

Public and Private Costs of Regulations

The preparation, implementation, enforcement, and monitoring of this or any Federal action involves the expenditure of public and private resources, which can be expressed as costs associated with the regulations. Costs associated with this emergency action include, but are not limited to Council costs of document preparation, meeting, and other costs; NMFS administration costs of document preparation, meetings and review, and annual law enforcement costs. A preliminary estimate is up to \$150,000 before annual law enforcement costs.

Determination of Significant Regulatory Action

Pursuant to E.O. 12866, a regulation is considered a “significant regulatory action” if it is expected to result in: (1) An annual effect of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities; (2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights or obligations of recipients thereof; or (4) raise novel legal or policy issues

arising out of legal mandates, the President's priorities, or the principles set forth in this executive order. Based on the information provided above, this regulatory action would not meet the first criterion. Therefore, this regulatory action is determined to not be economically significant for the purposes of E.O. 12866.

Appendix H. Initial Regulatory Flexibility Analysis

Introduction

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

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

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

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

The purpose and need, issues, problems, and objectives of the proposed rule are presented in **Section 1.4**. The purpose of this proposed rule is: (1) to establish the South Atlantic Council as the responsible entity for managing Nassau grouper throughout its range including federal waters of the Gulf of Mexico; (2) modify the crew member limit on vessels with both a South Atlantic Charter/Headboat Permit for Snapper Grouper and a South Atlantic Unlimited or 225-Pound Permit for Snapper Grouper (referred to as “dual-permitted” vessels); (3) modify the current restriction on crew retention of bag limit quantities of snapper grouper species; (4) minimize

regulatory delay when adjustments to snapper grouper species' ABC, ACLs, and ACTs are needed as a result of new stock assessments; and (5) address harvest of blue runner by commercial fishermen who do not possess a South Atlantic Snapper Grouper Permit.

The need for this proposed rule is to respond to the Gulf of Mexico Council's request for the South Atlantic Council to assume management of Nassau grouper in the Southeast U.S.; to address safety at sea concerns related to the current limit of three crew members for dual-permitted vessels; to make regulations regarding retention of snapper grouper species by crew members consistent for all snapper grouper species; to expedite adjustments to ABCs, ACLs, and ACTs for snapper grouper species when a new stock assessment indicates adjustments are warranted; and to minimize socio-economic impacts to fishermen without a South Atlantic Snapper Grouper Permit who harvest and sell blue runner to supplement their income.

The Magnuson-Stevens Fishery Conservation and Management Act, as amended, provides the statutory basis for this proposed rule.

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

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

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

This proposed rule is expected to directly affect commercial fishermen and for-hire operators. The Small Business Administration established size criteria for all major industry sectors in the U.S. including fish harvesters and for-hire operations. A business involved in fish harvesting is classified as a small business if independently owned and operated, is not dominant in its field of operation (including its affiliates), and its combined annual receipts are not in excess of \$4.0 million (NAICS code 114111, finfish fishing) for all of its affiliated operations worldwide. For for-hire vessels, other qualifiers apply and the annual receipts threshold is \$7.0 million (NAICS code 713990, recreational industries).

From 2007-2011, an annual average of 336 vessels with valid permits to operate in the commercial snapper-grouper fishery landed at least one pound of blue runner. These vessels generated dockside revenues of approximately \$2.1 million (2011) from all species caught in the same trips as blue runner, of which \$111,000 (2011 dollars) were from blue runner. Each vessel, therefore, generated an average of approximately \$6,250 in gross revenues, of which \$330 were from blue runner. Vessels in the mackerel fishery also harvested blue runner in some of their trips for harvesting Spanish or king mackerel. In 2007-2011, an average of 176 vessels harvested at least one pound of king mackerel and one pound of blue runner. These vessels generated an average of about \$799,000 from king mackerel and \$57,000 from blue runner. For the same period, an average of 219 vessels harvested at least one pound of Spanish mackerel and one pound of blue runner. These vessels generated about \$352,000 from Spanish mackerel and \$33,000 from blue runner. For over two decades now, commercial and recreational harvests of

Nassau grouper in the South Atlantic and Gulf of Mexico have been prohibited, so no revenue information on vessels dependent on Nassau grouper is available. Based on revenue information presented above, all commercial vessels affected by the rule can be considered small entities.

From 2008-2011, an annual average of 1,813 vessels had valid permits to operate in the for-hire sector of the snapper-grouper fishery. As of January 22, 2013, 1,462 vessels held South Atlantic for-hire snapper grouper permits and about 75 are estimated to have operated as headboats in 2013. The for-hire fleet consists of charter boats, which charge a fee on a vessel basis, and headboats, which charge a fee on an individual angler (head) basis. Average annual revenues (2011 dollars) for charter boats are estimated to be \$126,032 for Florida vessels, \$53,443 for Georgia vessels, \$100,823 for South Carolina vessels, and \$101,959 for North Carolina vessels. For headboats, the corresponding estimates are \$209,507 for Florida vessels and \$153,848 for vessels in the other states. Based on these average revenue figures, all for-hire operations that would be affected by the rule can be considered small entities.

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

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

Substantial Number of Small Entities Criterion

The proposed rule is expected to directly affect all federally permitted commercial vessels harvesting blue runner and for-hire vessels that operate in the South Atlantic snapper-grouper fishery. All directly affected entities have been determined, for the purpose of this analysis, to be small entities. Therefore, it is determined that the proposed action will affect a substantial number of small entities.

Significant Economic Impact Criterion

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

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

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

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

The proposed rule consists of the following:

- Extend the South Atlantic Council’s jurisdictional authority for management of Nassau grouper to include federal waters of the Gulf of Mexico; continue the harvest prohibition of Nassau grouper in the Gulf of Mexico and South Atlantic exclusive economic zone (EEZ)
- Increase from 3 to 4 the number of crew members on any dual-permitted vessel (a vessel with both a South Atlantic charter/headboat permit for snapper grouper and a South Atlantic unlimited or 225-pound permit for snapper grouper)
- Remove the snapper grouper species retention restrictions for captains and crew of vessels with a South Atlantic charter/headboat permit for snapper grouper
- Modify the South Atlantic snapper grouper fishery management plan (FMP) framework procedure
- Remove blue runner from the snapper grouper FMP

Extending the South Atlantic Council’s jurisdictional authority for management of Nassau grouper has no direct effects on the profits of commercial and for-hire vessels, because there are no accompanying changes to the management measures for this species. Any future changes to the management for Nassau grouper in the Gulf of Mexico or South Atlantic EEZ would pass through the usual regulatory process, although this time it would be solely under the process adopted by the South Atlantic Council.

Increasing from 3 to 4 the maximum number of crew members on any dual-permitted vessel would generally affect only those vessels that may opt to bring on board an additional crew member. Vessel owners/operators would likely weigh the cost of an additional crew with the additional benefits that could be derived from a fishing trip. Direct costs would be in the form of compensation to the additional crew member. Benefits could come in the form of better safety conditions, especially on trips that involve diving, or higher fishing quality on charter/headboat trips that could generate repeat customers and increase net operating revenues. The net effect of this action is relatively unknown in the short term. It is noted that this action would make the South Atlantic regulation on the maximum crew size of dual-permitted vessels consistent with that of the Gulf of Mexico.

Removing the bag limit retention restrictions for captains and crew of for-hire vessels (i.e., allowing the captain and crew to possess bag limits for snapper grouper species with allowable bag limits) could potentially increase the profits of for-hire vessels. These extra bag limits could be used as part of crew compensation, which would lower overall cost, or as a marketing tool to attract additional angler trips, which could bring in additional revenues. It is likely, however, that profit increases would be relatively minimal because of the small number of additional fish that could be kept. The total extra fish in a year that would result from allowing the captain and crew of for-hire vessels to keep bag limits would be about 51 fish on all charter trips and 138 fish on all headboat trips. An enforcement aspect of this action is that it would reduce confusion about which snapper grouper species could be retained by the captain and crew of for-hire vessels.

Modifying the management plan framework procedure would have no direct effects on commercial and for-hire vessel profits. This modification would allow for a faster implementation of any changes in the ACLs for snapper grouper species based on the most

recent stock assessment. The effects of those changes will be analyzed once they are considered by the Council.

Removing blue runner from the snapper grouper FMP would leave the species relatively unregulated in the South Atlantic EEZ. Commercial vessels can harvest as many blue runner as they can using whatever gear is most efficient for their operations. In principle, therefore, this action can be expected to result in overall profit increases to commercial vessels in the short term. Historically, however, blue runner has not been a major species targeted or landed by commercial snapper grouper or mackerel vessels. During 2007-2011, revenues from blue runner accounted for an average of about 5 percent of total revenues generated by snapper grouper commercial vessels that landed at least 1 pound of blue runner. These vessels would generate additional profits mainly if they increase their effort in harvesting blue runner. This would require some changes in their harvesting strategies that may only increase fishing costs. Many vessel operators may have deemed this cost increase not worth expending as evidenced by the relatively small share of revenues from blue runner. The case with commercial vessels targeting mainly Spanish or king mackerel is different from that with vessels mainly dependent on snapper grouper species. Under the no action alternative, a snapper grouper permit (unlimited or 225-pound limited) is required to possess and land blue runner. In addition, allowable gear types for harvesting any snapper grouper species exclude gillnets, which are often used in harvesting mackerel. If properly enforced, vessels which have historically harvested Spanish or king mackerel but do not possess a snapper grouper permit would have to discard their catches of blue runner; or, even if they have the necessary snapper grouper permit, they could not use gillnets to harvest blue runner along with mackerel. For commercial vessels landing at least 1 pound of Spanish mackerel and 1 pound of blue runner, revenues from blue runner were about 10 percent of revenues from Spanish mackerel; and, for vessels landing at least 1 pound of king mackerel and 1 pound of blue runner, revenues from blue runner were about 5 percent of revenues from king mackerel. Removing blue runner from the snapper grouper FMP would allow these vessels to at least maintain their revenues and profits at current levels.

Similar to commercial vessels, for-hire vessels would in principle benefit from removing blue runner from the snapper grouper FMP. These vessels can take as many trips targeting blue runner as they can to the extent those trips remain profitable. However, charter boats and headboats accounted for only 2.4 percent and 2.5 percent, respectively, of total recreational landings of blue runner during 2007-2011. In addition, there is no record of target trips for blue runner in charter boats. Target trips for blue runner in headboats are unknown. Given this information on landings and target trips, removal of blue runner from the snapper grouper FMP would likely have minimal effects on the profits of for-hire vessels.

The long-term effects of removing blue runner from the snapper grouper FMP on commercial and for-hire vessel profits would depend on whether the harvest of blue runner is sustainable in the absence of federal management of the species. Should blue runner become overfished, commercial and for-hire vessel profits would tend to decline over time. However, it should be noted that, with blue runner removed from the snapper grouper FMP and the fact that about 99 percent of blue runner are caught off of Florida waters, fishing regulations in Florida could be extended to the EEZ. This would allow continued sustainable management of the species. In

addition, the Council expressed its intention to continue monitoring trends and landings of the species for possible future management actions affecting the species.

Description of Significant Alternatives

Two alternatives, including the preferred alternative, were considered for extending the South Atlantic Council's jurisdictional authority for management of Nassau grouper. The only other alternative is the no action alternative. These two alternatives are administrative in nature and therefore have no effects on the profits of commercial and for-hire vessels.

Three alternatives, including the preferred alternative, were considered for modifying the crew size restriction for dual-permitted snapper grouper vessels. The first alternative, the no action alternative, would maintain the crew size limit at 3. This alternative would have no effects on vessel profits, but it would not address safety issues particularly related to diving trips. The second alternative would remove the crew size limit on dual-permitted snapper grouper vessels. This alternative would afford vessel owners/operators more flexibility in selecting the optimal crew size for every fishing trip, and thus may be expected to result in higher profits than any of the other alternatives. However, this alternative would tend to complicate the enforcement of fishing rules that differentiate between a commercial and a for-hire fishing trip. Dual-permitted vessels could take a for-hire trip with every angler practically considered a crew member and then sell their catch as if a commercial vessel trip was taken. In addition to being illegal, this practice could pose problems in tracking recreational versus commercial landings of snapper grouper species for purposes of ACL monitoring. Accountability measures could be unduly imposed on one sector if sector ACLs could not be properly monitored.

Three alternatives, including the preferred alternative, were considered for modifying the bag limit restriction on snapper grouper species for captains and crew of permitted for-hire vessels. The first alternative, the no action alternative, would maintain the prohibition on captain and crew of for-hire vessels from retaining bag limit quantities of the following species: gag, black grouper, red grouper, scamp, red hind, rock hind, coney, graysby, yellowfin grouper, yellowmouth grouper, yellowedge grouper, snowy grouper, misty grouper, vermilion snapper, sand tilefish, blueline tilefish, and golden tilefish. This alternative would not change the profits of for-hire vessels but would also forgo any potential profit that could result from the preferred alternative. The second alternative would establish a bag limit of zero for captains and crew of permitted for-hire vessels for *all* species included in the snapper grouper fishery management unit (FMU). Under this alternative, captains and crew of for-hire vessels would forgo 275 fish in charter trips and 4,291 fish in headboat trips. If these fish were used as part of crew compensation, losing them would increase the cost of fishing; if these fish were used as a marketing tool to attract additional angler trips, those trips and associated revenues would unlikely occur in the future. There is, therefore, a good likelihood that this alternative would adversely affect the profits of for-hire vessels.

Two alternatives, including the preferred alternative, were considered for modifying the management plan framework procedure. The only other alternative is the no action alternative. These two alternatives are administrative in nature and therefore have no direct effects on the

profits of commercial and for-hire vessels. It is noted that the preferred alternative would allow a faster implementation of ACL changes which could eventually affect the profits of commercial and for-hire vessel profits.

Three alternatives, including the preferred alternative, were considered for modifying the placement of blue runner in a fishery management unit and/or modifying management measures for blue runner. The first alternative, the no action alternative, would have no effects on the profits of commercial and for-hire vessels in the snapper grouper fishery. It is likely, however, that commercial vessels in the mackerel fishery that do not possess a commercial snapper grouper permit (unlimited or 225-pound limited) would have to discard their catches of blue runner unless they secure the necessary permit. Without the necessary permit, they would experience revenue and profit reductions from discarding blue runner. If they want to continue to harvest and sell blue runner, they would have to purchase a commercial snapper grouper permit. Their cost would increase especially that the commercial snapper grouper permit is under a moratorium so that the likely purchase price of such a permit would cost substantially more than the administrative cost of securing an open access permit or of renewing a commercial snapper grouper permit. The second alternative would retain blue runner in the snapper grouper FMP but would also allow commercial harvest and sale of blue runner for vessels associated with a commercial Spanish mackerel permit. In addition, gillnets would be an allowable gear for only blue runner in the snapper grouper fishery. This alternative would tend to maintain the current profitability of commercial vessels especially in the mackerel fishery as these vessels would be allowed to harvest and sell blue runner without incurring additional costs through the purchase of snapper grouper permits. The third alternative would retain blue runner in the snapper grouper FMP but exempt it from the snapper grouper permit requirement for purchase, harvest, and sale. This alternative would have the same effects on the profits of commercial vessels as the second alternative.

Appendix I. Fishery Impact Statement

Overall, the proposed actions in this amendment are expected to result in minimal negative impact along with some important benefits to the commercial and for-hire fishing fleets, fishing communities and associated businesses, and private recreational anglers. Because of the moratorium on harvest of Nassau grouper, there are no expected impacts on fishermen or fishing communities due to management in the South Atlantic and Gulf of Mexico regions by the South Atlantic Council. The proposed increase in allowable crew size to four individuals is expected to allow safe and profitable commercial dive trips on the 148 vessels that hold both a federal commercial snapper grouper permit (Unlimited or 225-Pound) and a federal charter snapper grouper permit (dual-permitted vessels). Of these, 50 vessels are from the Florida East Coast; 43 from the Florida Keys; 1 from Georgia; 16 from South Carolina; and 32 from North Carolina.

The opportunity to retain catch on for-hire trips is expected to be beneficial to for-hire captain and crew by providing fish for personal consumption and reducing waste on for-hire trips. However, for species with low recreational ACLs (such as snowy grouper), allowing captain and crew to retain bag limits may reduce the amount available to private recreational anglers.

The proposed adjustments in the framework procedure are expected to benefit fishermen and communities by allowing for timeliness in the regulatory process and providing an avenue for the South Atlantic Council to make faster adjustments to ACLs and minimize social and economic impacts. However, if an assessment indicated a substantial decrease in the ACL was needed, the proposed modifications to the framework procedure would prohibit a more deliberative process of ensuring the fishermen are informed and allowed adequate time to provide public comment regarding the needed changes in catch levels. When stock assessments indicate ACLs can be increased, quick adjustments for ACLs would allow for positive social effects without negatively impacting the sustainability of the stock. When stock assessments indicate large decreases in the ACLs are needed, a quick adjustment to the catch level would likely result in negative social effects in that quickly reducing catch levels would occur without a great deal of public involvement.

There are two groups of commercial fishermen who may be directly impacted by changes in blue runner management, specifically in regards to permit and gear requirements: fishermen who harvest blue runner with hook-and-line; and fishermen who harvest blue runner with Spanish mackerel gillnets. Hook-and-line landings are primarily based in South Florida, with most landings in Monroe County, Miami-Dade County, and Palm Beach County. Blue runner landings with gillnet are primarily reported in the central east coast of Florida, with most landings in Brevard County (around Cape Canaveral) and some landings in Martin County, Indian River County, and St Lucie County. Although the south Florida counties represent the highest landings of blue runner with hook-and-line, and the counties on the central east coast of Florida have the most landings of blue runner with gillnet, blue runner is not an economically significant species in the snapper grouper commercial fishery or to the fishing communities. However, there are pockets of vessels that catch blue runner with gillnets while harvesting Spanish mackerel, particularly around Cape Canaveral, Florida and the fishermen working on these vessels may be dependent on blue runner catch during the late summer and early fall. The

proposed removal of blue runner from the Snapper Grouper FMU will be beneficial to fishermen without Snapper Grouper permits who harvest blue runner with gillnet because it would not require an additional permit and would allow harvest with gillnet. This would also be expected to have no negative impacts on fishermen with Snapper Grouper Unlimited Permit or 225-Pound Permits who harvest blue runner with hook-and-line.