DRAFT

Amendment 48

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

Modernization of the Wreckfish Individual Transferable Quota Program

Environmental Assessment, Initial Regulatory Flexibility Act Analysis, and Regulatory Impact Review

DRAFT February 2024

South Atlantic Fishery Management Council
4055 Faber Place Drive; Suite 201
North Charleston, SC 29405

Award Number FNA15NMF4410010

Amendment 48
to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region

Proposed actions: The actions in Amendment 48 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region would modify management of wreckfish. Actions would establish an electronic reporting system, trip and landing notification, cost recovery and revise sector allocations, permit requirements, the fishing year, and offloading site and time requirements.

Responsible Agencies and Contact Persons

South Atlantic Fishery Management Council
4055 Faber Place, Suite 201
North Charleston, South Carolina 29405
IPT lead: Christina Wiegand
christina.wiegand@safmc.net

843-571-4366
843-769-4520 (fax)
www.safmc.net

National Marine Fisheries Service
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701
IPT lead: Karla Gore
karla.gore@noaa.gov

727-824-5305
727-824-5308 (fax)
NMFS SERO

This EA is being prepared using the 2020 CEQ NEPA Regulations as modified by the Phase I 2022 revisions. The effective date of the 2022 revisions was May 20, 2022, and reviews begun after this date are required to apply the 2020 regulations as modified by the Phase I revisions unless there is a clear and fundamental conflict with an applicable statute. This EA began on [DATE] and accordingly proceeds under the 2020 regulations as modified by the Phase I revisions.

Table of Contents

List of Appendices

List of Tables

List of Figures

Summary

Why is the South Atlantic Fishery Management Council considering action?

The Wreckfish Individual Transferable Quota (ITQ) program is considered to be a limited access privilege program under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), which needs to be reviewed every five to seven years (16 U.S.C. 1853a(c)(1)(G)). The most recent review by the Council evaluated progress made in meeting the goals and objectives of the Wreckfish ITQ program. The review does not attempt to comprehensively evaluate management of the snapper grouper fishery.

The Wreckfish ITQ program was reviewed comprehensively for the first time in 2009. The review completed in 2019 was the first subsequent review. That review examined how the Wreckfish ITQ program changed between a baseline time period (2009/2010 – 2011/2012 fishing years) and the review time period (2012/2013 – 2016/2017 fishing years) with respect to various social, economic, biological, and administrative factors, and offered conclusions and recommended changes to the program based on the findings. The 2019 review found that the program has been relatively successful in achieving its stated objectives, although there is still room for improvement, particularly with respect to confidentiality issues and related constraints; moving away from a paper coupon-based program to an electronic program; cost recovery; wreckfish permit requirement; allocation issues; offloading sites and times; and economic data collection. Snapper Grouper Amendment 48 will consider actions and alternatives necessary to improve and modernize the Council's Wreckfish ITQ program.

Action 1. Revise sector allocations and sector annual catch limits for wreckfish.

Purpose of Action:
The recommendation to evaluate sector allocations (currently 95% commercial and 5% recreational) came from the Snapper Grouper Advisory Panel due to concern that the recreational allocation for wreckfish is too high. A lower allocation may be more appropriate, especially considering the low wreckfish encounter rate in the Marine Recreational Information Program (MRIP) survey. Additionally, the allocation was intended to allow some retention in the case of bycatch due to wreckfish having high release mortality and not to encourage targeting of wreckfish recreationally.

Preferred Alternative 2. Allocate 98% of the total annual catch limit for wreckfish to the commercial sector. Allocate 2% of the total annual catch limit for wreckfish to the recreational sector.

Action 2. Implement an electronic reporting system for the wreckfish individual transferable quota (ITQ) program.

Purpose of Action:
Data management, data quality, data analysis, and user experience could be greatly enhanced by moving from a paper system to an electronic system. The migration to an electronic system would increase timeliness of reported data, improve data quality, reduce cost and time for management, provide additional flexibility and benefits to fishermen, and improve program enforcement and monitoring.

Preferred Alternative 2. Implement an electronic system of reporting for the wreckfish ITQ program to electronically track ownership and transfers of quota shares, distribution, and transfers of annual allocation (quota pounds), and electronically record wreckfish landing information.

Action 3. Modify the requirement to possess a commercial vessel permit for wreckfish.

Purpose of Action:
The requirements to possess two permits (the wreckfish permit and a snapper grouper permit) in addition to owning ITQ shares is duplicative and therefore unnecessarily burdensome for program participants and data managers. For fishermen the additional burden is from annual fees for two permits. For data managers, the two permits increase the administrative processing burden, unnecessarily complicating the use of data by program analysts. Additionally, in regard to the wreckfish permit, requiring NMFS to determine whether an entity is an employee, contractor, or agent of the vessel owner is difficult without requesting more information than is typically requested of permit applicants, creates additional administrative burden for applicants and NMFS, and complicates the data confidentiality of this small fishery.

Preferred Alternative 3. To commercially harvest or sell wreckfish, a commercial permit for South Atlantic snapper grouper (unlimited) must have been issued to the vessel, the permit must be on board, and the permit holder must be a wreckfish shareholder.

Action 4. Wreckfish Individual Transferable Quota Online Shareholder Account Eligibility

Purpose of Action:
This action would add language to the Code of Federal Regulations (CFR) establishing requirements for opening a wreckfish shareholder account in the new online system.

Preferred alternative not yet selected.

Action 5. Requirements for Obtaining and Maintaining Wreckfish Individual Transferable Quota Shares in the Online System

Purpose of Action:
This action would add language to the Code of Federal Regulations (CFR) establishing requirements for obtaining and maintaining shares in the online system. Currently, there are no

requirements for obtaining and maintaining shares in an online system, which would allow wreckfish shares to be obtained and maintained by an individual that does not possess the necessary requirements to harvest wreckfish.

Preferred alternative not yet selected.

Action 6. Share Divestment for Permit-Required Accounts

Purpose of Action:
This action would add language to the Code of Federal Regulations (CFR) establishing a protocol for NMFS reclaiming shares if an account no longer meets requirements to maintain shares, as established in Action 5. As such, Action 6 is applicable only if an alternative other than Alternative 1 is chosen in Action 5.

Preferred alternative not yet selected.

Action 7. Redistribution of reclaimed shares to remaining shareholders.

Purpose of Action:
This action would add language to the Code of Federal Regulations (CFR) establishing a protocol for NMFS to redistribute shares that have been reclaimed. As such, Action 7 is applicable only if an alternative other than Alternative 1 (No Action) is chosen in Action 5 and Action 6.

Preferred alternative not yet selected.

Action 8. Wreckfish Individual Transferable Quota Requirements to Obtain Annual Allocation from Shares

Purpose of Action:
This action would add language to the Code of Federal Regulations (CFR) establishing requirements for a shareholder to receive their annual allocation, ensuring that shareholders are up to date with cost recovery fees and fishery monitoring requirements.

Preferred alternative not yet selected.

Action 9. Wreckfish Individual Transferable Quota Requirements to Obtain Annual Allocation through Transfer.

Purpose of Action:
This action would add language to the Code of Federal Regulations (CFR) establishing requirements for obtaining annual allocation through transfer in the online system. Currently, there are no requirements for obtaining annual allocation through transfer in an online system, which would allow wreckfish allocation to be obtained and maintained by an individual that does not possess the necessary requirements to harvest wreckfish.

Preferred alternative not yet selected.

Action 10. Retaining Annual Allocation before a Commercial Annual Catch Limit Reduction

Purpose of Action:
While no stock assessment or ACL reduction is expected for wreckfish, this action would This action would add language to the Code of Federal Regulations (CFR) to provide the Regional Administrator with the ability to withhold annual allocation in the event a reduction is required in the future.

Preferred alternative not yet selected.

Action 11. Modify the commercial fishing year for wreckfish.

Purpose of Action:
The Wreckfish program will be built into the existing Southeast Catch Share Online System, which has a mandatory down time period from December 31 at 6pm EST to January 1 at 2pm EST. A calendar year fishing year would reduce administrative burden and system downtime as the ITQ program moves towards an electronic reporting system.

Preferred Alternative 2. The commercial fishing year for wreckfish begins on January 1 and ends on December 31. From January 15 through April 15, each year, no person may harvest or possess wreckfish on a fishing vessel, in or from the exclusive economic zone.

Action 12. Pre-landing Notification Requirement for Commercial Vessels Participating in the Wreckfish Component of the Snapper Grouper Fishery.

Purpose of Action:
This action proposes a pre-landing (hail-in) requirement for the wreckfish fishery. The Magnuson Stevens Act requires that limited access privilege programs "include an effective system for enforcement, monitoring, and management of the program, including the use of observers or electronic monitoring systems." (16 U.S.C. 1853a) These types of tools have proven successful in other catch share programs.

Preferred alternative not yet selected.

Action 13. Modify offloading site requirements and establish approved landing locations for wreckfish.

Purpose of Action:
Catch Share programs are required to include an effective system for enforcement, monitoring, and management of the program. The landing locations and fixed times for offload support the ability of the agency to enforce and monitor the program. These tools have proven successful in other catch share programs.

Preferred alternative not yet selected.

Action 14. Modify offloading time requirements for wreckfish.

Purpose of Action:
Wreckfish shareholders expressed that the daily unloading timeframe (8 am 5pm) is overly burdensome. The allowable offloading time requirement affects the efficiency of their fishing operations. Shareholders would like to see the approved offloading times requirement removed. Catch Share programs are required to include an effective system for enforcement, monitoring, and management of the program. The fixed times for offload support the ability of the agency to enforce and monitor the program. These tools have proven successful in other catch share programs.

Preferred Alternative 2. Wreckfish may only be offloaded between the hours of 6 a.m. and 6 p.m., local time.

Action 15. Implement a cost recovery plan and associated conditions for the wreckfish individual transferable quota program.

Purpose of Action:
Cost recovery, the collection of a fee to recover the actual cost directly related to the management, data collection, and enforcement of any Limited Access Privilege Program (LAPP), is mandated under section 304(d)(2)(A) of the Magnuson-Stevens Act.

Sub-Action 15-1. Implement a cost recovery plan for the wreckfish individual transferable quota program.

Preferred Alternative 2. Implement an individual transferable quota cost recovery plan. The transferable quota shareholder landing wreckfish would be responsible for collection and submission of the cost recovery fee to NMFS.

Sub-Action 15-2. Collection of wreckfish individual transferable quota program cost recovery fees.

Preferred Alternative 4. Fees will be collected in the last quarter of the calendar year in which the fish is harvested.

Sub-Action 15-3. Frequency of wreckfish individual transferable quota program cost recovery fee submission.

Preferred Alternative 2. Cost recovery fee will be submitted once per year.

Sub-Action 15-4. Determination of wreckfish individual transferable quota program cost recovery fees.

Preferred Alternative 2. The cost recovery fee will be based on actual ex-vessel value of the wreckfish landings.

Chapter 1. Introduction

1.1 What actions are being proposed in this plan amendment?

The actions in Amendment 48 to the Fishery Management Plan (FMP) for the Snapper Grouper Fishery of the South Atlantic Region (Snapper Grouper Amendment 48) would modify management of wreckfish. Actions would establish an online reporting system, consider monitoring options, implement a cost recovery process, revise sector allocations, consider permit requirements, modify the fishing year, and modify the offloading site and time requirements.

1.2 Who is proposing the amendment?

The South Atlantic Fishery Management Council (Council) is responsible for managing snapper grouper species in the South Atlantic region. The Council develops the amendment and submits it to the National Marine Fisheries Service (NMFS). NMFS determines whether to approve, disapprove, or partially approve the amendment. NMFS also determines whether to publish a rule to implement the amendment on behalf of the Secretary of Commerce. NMFS is an agency of the National Oceanic and Atmospheric Administration within the Department of Commerce. Guided by the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), the Council works with NMFS and other partners to sustainably manage fishery resources in the South Atlantic.

The Council and NMFS are also responsible for making this document available for public comment. The draft environmental assessment (EA) was made available to the public during the scoping process, public hearings, and Council meetings. The EA/amendment was made available for comment during the amendment review and will be available during rulemaking process.

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). There are 55 species managed by the Council under the Snapper Grouper FMP, including wreckfish.

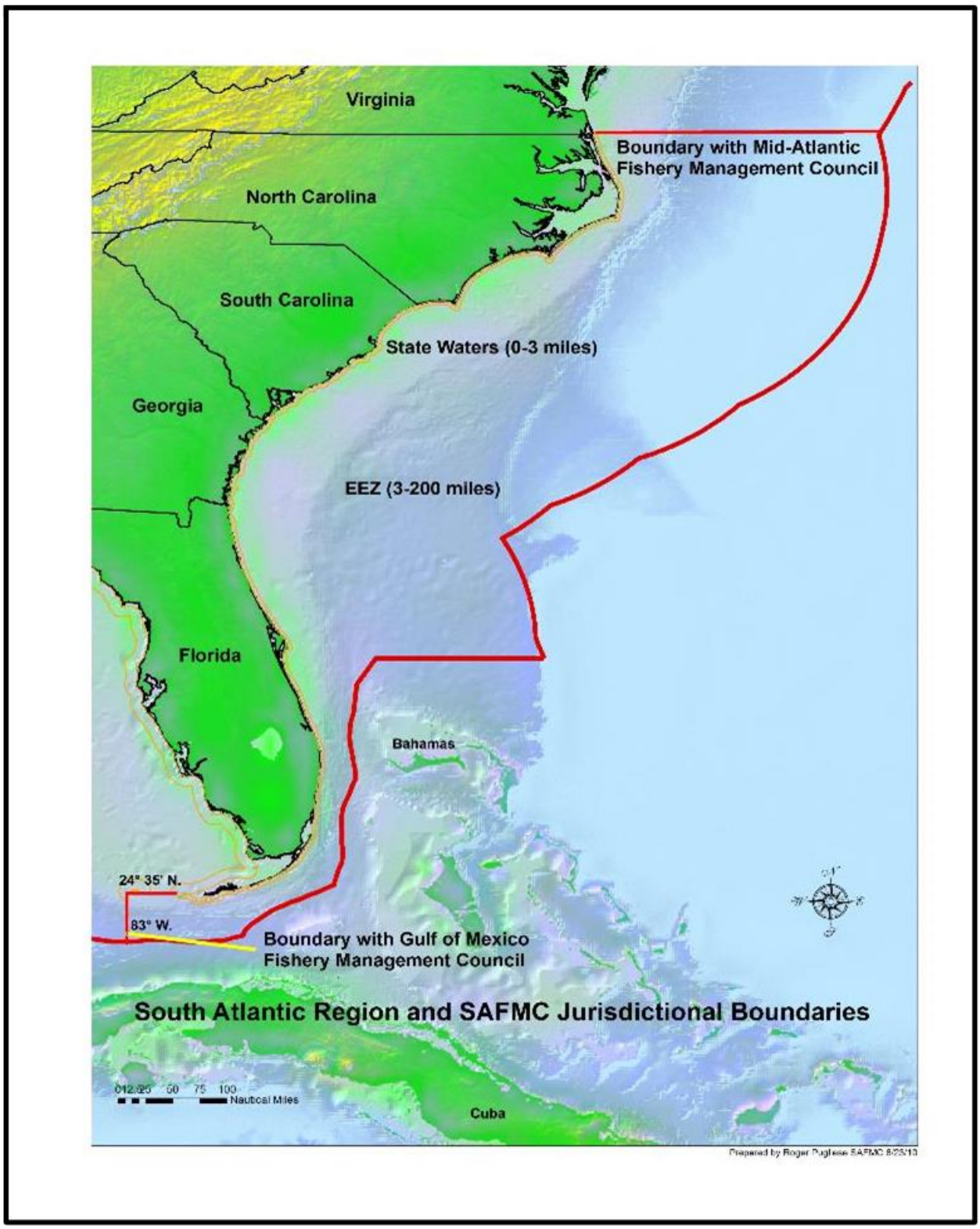

Figure 1.3.1. Jurisdictional boundaries of the Council.

1.4 Why is the Council considering action (purpose and need statement)?

Purpose: The *purpose* of this action is to modernize the wreckfish individual transferable quota (ITQ) program, and revise management measures.

Need: The *need* for this action is to improve program monitoring and enforcement, as well as data collection and management, provide more flexibility for fishers, increase profitability in the wreckfish ITQ program, and implement a cost recovery program as mandated by the Magnuson-Stevens Act.

The Wreckfish Individual Transferable Quota (ITQ) program is considered to be a limited access privilege program under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson Stevens Act), which needs to be reviewed every five to seven years (16 U.S.C. § 1853a(c)(1)(G)). The review does not attempt to comprehensively evaluate management of the snapper grouper fishery.

The Council reviewed the program in 2009 and completed a subsequent review in 2019. That review examined how the Wreckfish ITQ program changed between a baseline time period (2009/2010 – 2011/2012 fishing years) and the review time period (2012/2013 – 2016/2017 fishing years) with respect to various social, economic, biological, and administrative factors, and offered conclusions and recommended changes to the program based on the findings. The 2019 review found that the program has been relatively successful in achieving its stated objectives, although there is still room for improvement, particularly with respect to confidentiality issues and related constraints. The 2019 review also recommended reviewing: moving away from a paper coupon-based program to an online program; cost recovery; wreckfish permit requirements; allocation issues; offloading sites and times; and economic data collection. Snapper Grouper Amendment 48 will consider actions and alternatives necessary to improve and modernize the Council's Wreckfish ITQ program, including cost recovery, which is mandated for all ITQ programs.

1.5 Wreckfish Individual Quota Program Goals and Objectives

The review of the Wreckfish ITQ Program (2019) evaluated the program based on whether it met the original goals and objectives established in Snapper Grouper Amendment 5 (SAFMC 1991). Since the beginning of the program in 1991, the fishery has changed significantly through regulation and participation. The following goals and objectives for the Wreckfish ITQ program were listed as justification for limiting participation in the fishery through an ITQ program:

1. "Develop a mechanism to vest fishermen in the wreckfish fishery and create incentives for conservation and regulatory compliance whereby fishermen can realize potential long-run benefit …"
2. "Provide a management regime which promotes stability and facilitates long-range planning and investment by harvesters and fish dealers while avoiding, where possible,

the necessity for more stringent management measures and increasing management costs over time."

3. "Develop a mechanism that allows the marketplace to drive harvest strategies…"
4. "Promote management regimes that minimize gear and area conflicts…
5. "Minimize the tendency for over-capitalization in the harvesting and processing/distribution sectors."
6. "Provide a reasonable opportunity for fishermen to make adequate returns from commercial fishing by controlling entry so that returns are not regularly dissipated by open access, while also providing avenues for fishermen not initially included in the limited entry program to enter the program."

Wreckfish ITQ shareholders reviewed the current goals and objectives in October 2020 and agreed that the current program successfully met all six goals and objectives. The shareholders did express concern about giving wreckfish fishermen an unrealistic expectation of permanent ownership in the fishery as unused shares have been reallocated in the past (Snapper Grouper Amendment 20A; 2011) (Objective One) and creating any new avenues for fishermen to enter the program because the fishery is already at maximum capacity with current effort (Objective Six). The Council reviewed the goals and objectives during their December 2020 meeting and chose to retain the current goals and objectives for the Wreckfish ITQ Program without modification. The Council determined no changes were needed because there have not been substantial modifications to the program and the current amendment proposes only modernizing existing systems.

1.6 What is the history of management for the wreckfish portion of the snapper grouper fishery?

Snapper grouper regulations in the South Atlantic were first implemented in 1983. The reader is referred to the following link for the management history, summary of changes under each amendment, implementation dates, an up-to-date list of amendments under development and more, for all of the species in the Snapper Grouper FMP: https://safmc.net/fishery-managementplans/snapper-grouper/. Below are amendments to the Snapper Grouper FMP addressing wreckfish within the South Atlantic EEZ.

Wreckfish was not included in the original FMP but was added in Amendment 3 (SAFMC 1990). The stock on the Charleston Bump was discovered accidentally in the mid-1980s by swordfish fishermen recovering lost longline gear in the area (Gauvin et al. 1994). At the time, entrance into the fishery was relatively easy due to the lack of regulations (e.g., no permit requirements) and the low cost of converting boats with mechanized hydraulic gear from the swordfish, shark, snapper grouper, and deepwater shrimp fisheries. The wreckfish were larger (~30 lb) than local grouper species and trips were correspondingly lucrative. Fearing a biological collapse, the Council passed Amendment 3 (SAFMC 1990) at its February/March 1990 meeting, which included the following management actions:

1. Added wreckfish to the management unit.
2. Defined optimum yield (OY).
3. Defined overfishing.

4. Required a permit to fish for, land, or sell wreckfish.
5. Established a data collection system for management.
6. Established a control date of March 28, 1990, for a limited-entry program.
7. Established a fishing year beginning April 1.
8. Established a total allowable catch - initially set at 2 million pounds (mp).
9. Established a 10,000 lb trip limit.
10. Established a spawning season closure from January 15 through April 15.

The initial management measures were quickly found to be insufficient for restricting landings to the total allowable catch (TAC), as the newly permitted fishermen caught the entire 2 million pounds (mp) TAC in the first four months of the 1991-1992 season. Amendment 4 to the Snapper Grouper FMP (SAFMC 1991b) was not primarily directed at regulating wreckfish but did add one significant restriction with the banning of bottom longline gear in the wreckfish fishery. Before that longline ban went into effect in October 1991, however, the Council passed Amendment 5 (SAFMC 1991a), which introduced the ITQ program that is still in place.

The wreckfish ITQ is the oldest finfish ITQ in the United States and the second oldest ITQ overall (after ocean quahog/surf clam). Amendment 5 introduced a regulatory system of transferable and divisible privileges to catch and sell wreckfish in the area under the Council's jurisdiction. On the first page of Amendment 5, the ITQs are defined in two separate but related ways. Percentage shares are an individual "fisherman's permanent holding in the fishery based on the initial allocation of shares that can be modified by trading." Individual quotas are "the quantity of wreckfish that a percentage share translates into in a particular year." Amendment 5 introduced a system for tracking and monitoring both percentage share and individual quota transactions, and these systems are still in use. The ITQ program did not replace the wreckfish vessel permit requirement established in Amendment 3 (SAFMC 1990), and so wreckfish fishermen are still required to have this permit to harvest wreckfish. Wreckfish dealers have also been required to be permitted since Amendment 5, though the original wreckfish dealer permit was replaced with the Gulf and South Atlantic Dealer permit in Snapper Grouper Amendment 40 (2013). Fishermen and dealers must comply with the data reporting requirements of the wreckfish ITQ as outlined in Amendment 5.

Following the implementation of the ITQ program, the fishery experienced a steady drop in landings throughout the latter half of the 1990s and early 2000s. The reasons for this are discussed extensively in Yandle and Crosson (2015), who concluded that shareholders had chosen to invest in other, more lucrative fisheries following a drop in wreckfish prices. Most shareholders were not active in the wreckfish fishery, and most of the wreckfish shares went unharvested during this time.

Amendment 20A (SAFMC 2012) revised the Wreckfish ITQ program with the following actions:

1. Define and revert inactive wreckfish shares. Inactive shares were defined as shares belonging to any ITQ shareholder who had not reported wreckfish landings between April 16, 2006, and January 14, 2011. Inactive shares were eligible for redistribution among active shareholders.

2. Redistribute reverted quota shares to remaining shareholders using total wreckfish landings from April 16, 2006, through January 14, 2011.
3. Establish a share cap of 49% of the total shares of wreckfish quota a single entity may own, and
4. Establish an appeals process for redistribution of reverted wreckfish quota shares. Five percent of the wreckfish shares for fishing year 2012/2013 were set aside to resolve appeals for a period of 90-days starting on the effective date of the final rule, October 26, 2012 (77 FR 59129).

Chapter 2. Proposed Actions and Alternatives

2.1 Action 1. Revise sector allocations and sector annual catch limits for wreckfish.

2.1.1 Alternatives

Alternative 1 (No Action). Retain the current commercial sector and recreational sector allocations as 95% and 5%, respectively, of the total annual catch limit for wreckfish.

Preferred Alternative 2. Allocate 98% of the total annual catch limit for wreckfish to the commercial sector. Allocate 2% of the total annual catch limit for wreckfish to the recreational sector.

Alternative 3. Allocate 99% of the total annual catch limit for wreckfish to the commercial sector. Allocate 1% of the total annual catch limit for wreckfish to the recreational sector.

Alternative 4. Allocate 99.5% of the total annual catch limit for wreckfish to the commercial sector. Allocate 0.5% of the total annual catch limit for wreckfish to the recreational sector.

Discussion:

The Snapper Grouper Advisory Panel and Wreckfish Shareholders recommended that the South Atlantic Fishery Management Council (Council) revisit sector allocations for wreckfish. There is concern that the recreational allocation for wreckfish is too high since it was originally intended to allow some retention in the case of bycatch due to wreckfish having high release mortality and not to encourage targeting of wreckfish recreationally. The Shareholders felt that a lower allocation may be more appropriate, especially considering the low encounter rate as reported in the Marine Recreational Information Program (MRIP) survey.

Amendment 25 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region SAFMC 2011) made the first specific allocation of wreckfish to the recreational sector. That amendment established an annual catch limit (ACL) and allocated 95% of the total wreckfish ACL to the commercial sector and 5% to the recreational sector. Prior to Amendment 25 (SAFMC 2011) it was illegal for recreationally harvested wreckfish to be possessed unless the fisherman also held a South Atlantic Commercial Snapper Grouper Permit.

According to Southeast Region Headboat Survey data, no wreckfish have been landed by South Atlantic headboats since the recreational sector was given its allocation (K. Donnelly, pers. comm., Beaufort Laboratory, 3/19/2019). Recreational landings are currently tracked using MRIP. Wreckfish intercepts by MRIP are exceedingly rare. Since 1981, only one intercepted trip by a charter vessel off of Hatteras, NC, in 2012 reported harvest of wreckfish (Pers. comm., NMFS, Fisheries Statistics Division, 3/19/2019). With wreckfish MRIP intercepts being so rare, it is uncertain how many wreckfish are being caught by the recreational sector, though it is likely the recreational sector is not fully utilizing its current allocation.

2.1.2 Comparison of Alternatives:

Biological effects are not expected to be substantially different between **Alternative 1 (No Action)** and **Preferred Alternative 2**, **Alternative 3**, and **Alternative 4** since the allocation percentages do not affect the total annual catch limit (ACL) established for this fishery and the commercial sector is well regulated under an ITQ program. Substantial changes in fishing effort or behavior are not expected because of this action, thus the proposed allocations under this action would not be expected to result in any biological effects, positive or negative, on the wreckfish stock or co-occurring species.

In general, sector ACLs that allow for more fish to be landed can result in increased positive economic and social effects if harvest increases without notable long-term effects on the health of a stock. The sector ACL does not directly impact the fishery for a species unless harvest changes, fishing behavior changes, or the sector ACL is exceeded, thereby potentially triggering accountability measures (AMs) such as harvest closures or other restrictive measures. As such, sector ACLs that are set above observed landings in a fishery for a species and do not change harvest or fishing behavior may not have realized economic effects each year. Nevertheless, sector ACLs set above observed average harvest levels do create a gap between the sector ACL and typical landings that may be utilized in years of exceptional abundance or accessibility of a species, thus providing the opportunity for increased landings and a reduced likelihood of triggering restrictive AMs. As such there are potential economic benefits from sector ACLs that allow for such a gap (**Table 2.1.1.1**). Under this notion, **Alternative 4** would allow for the highest potential economic benefits for the commercial sector followed by **Alternative 3**, **Preferred Alternative 2**, and **Alternative 1 (No Action)**. The opposite would be true for the recreational sector, where **Alternative 1 (No Action)** would allow for the highest potential economic benefits followed by **Preferred Alternative 2**, **Alternative 3**, and **Alternative 4**.

Table 2.1.1.1. Commercial and recreational allocation alternatives and resulting annual catch limits.

Action 1	Commercial Allocation	Commercial ACL (lbs ww)	Recreational Allocation	Recreational ACL (lbs ww)
Alternative 1 (No Action)	95%	369,645	5%	19,455
Preferred Alternative 2	**98%**	**381,318**	**2%**	**7,782**
Alternative 3	99%	385,209	1%	3,891
Alternative 4	99.5%	387,155	0.5%	1,946

Note: Total wreckfish ACL is 389,100 pounds round weight for 2020 and subsequent fishing years.

There can be additional social effects that result as allocations are discussed further, and perceptions are formed. In the past, there was some resistance to further decreasing a given sector's percentage allocation. Under **Preferred Alternative 2**, **Alternative 3**, and **Alternative 4** there would be a decrease in the recreational percentage compared to **Alternative 1 (No Action)**. These alternatives could have some negative social effects if recreational fishermen have a negative perception of this change due to the decrease in fishing opportunity and concerns about long-term social effects, especially if other actions further decreased harvest opportunities. However, the recreational sector has not met its ACL in recent years, which may subvert any negative perceptions.

The overall administrative effects are likely going to be minimal and the same across the viable alternatives. The commercial sector of the wreckfish fishery is already managed under an ITQ program, which is a considerable administrative burden to the agency. Upon implementation of one of the action alternatives, there would be a temporary increased administrative burden to reallocate quota share to individuals in the program. However, this burden will be only at the implementation stage and minimal moving forward.

2.2 Action 2. Implement an electronic reporting system for the wreckfish individual transferable quota (ITQ) program.

2.2.1 Alternatives

Alternative 1 (No Action). Retain the current ITQ paper-based reporting system including, share certificates, allocation coupons, vessel logbooks, and dealer reports.

Preferred Alternative 2. Implement an electronic system of reporting for the wreckfish ITQ program to electronically track ownership and transfers of quota shares, distribution, and transfers of annual allocation (quota pounds), and electronically record wreckfish landing information as part of the coastal fisheries logbook program.

Discussion:
Data management, data quality, data analyses, and user experience could be greatly enhanced by moving from a paper system to an online system. The migration to an online system would increase timeliness of reported data, improve data quality, reduce time for management, provide additional flexibility and benefits to fishermen, and improve program enforcement and monitoring.

2.2.2 Comparison of Alternatives:

The current ITQ monitoring program is a paper-based system that is managed through two different line offices: SERO and SEFSC. The paper-based nature of the program relies on mailed in reports and creates significant manual work to enter the information into an electronic record for monitoring and analysis. The division in the management of the program means that the entirety of the data for the program is not retained within a single database nor monitored by a single office.

Maintaining data across multiple datasets and locations creates a challenge for monitoring the program in its entirety. While each line office effectively manages their components of the program, this structure prevents NMFS from monitoring activity on a real-time basis, inhibits analysis of the program, and increases the costs of monitoring the program and evaluating its performance. Managing the system in one system that has built-in quality assurance measures may decrease costs to monitor the program and improve timeliness of assessing the program through increased access to data for analysis. Consolidating the program to one office and an online system will also increase the ability to provide customer service to the stakeholders of the program. To that end, program performance could be improved by moving to an electronic system as proposed in **Preferred Alternative 2**. The current structure of the wreckfish program lends itself well to the electronic reporting system already in place for other Catch Share programs managed or hosted by the regional office (e.g., Gulf of Mexico IFQ programs, pilot catch share program for the Gulf Headboat Collaborative, etc.).

Benefits of moving from the paper-based program (**Alternative 1 (No Action)**) to the online program (**Preferred Alternative 2**) may include:

- One database containing all program activity (e.g., landings; participation; transfers of quota shares and quota pounds; ex-vessel, share, and quota pound prices).
- More timely and accurate data reporting and real-time monitoring.
- Improved method and reduced time to transfer shares and quota pounds.
- Automated share cap calculations and increased timeliness in share transfers.
- Ability to match permit holders to shareholder accounts.
- Participants are able to view a history of their online actions (i.e., share transfers, allocation transfers, and landings)
- Elimination of paper coupons, which would:
    - Allow quota pounds to be transferred or landed in one-pound increments rather than 100- and 500-pound increments, which would eliminate loss of quota pounds due to denominational restrictions.
    - Eliminate the need to print coupons and mail coupons to the shareholders.
    - Eliminate the need to mail in coupons to the SEFSC.

Moving to an online ITQ system is an administrative action that would modernize and improve an already existing program. Establishing an electronic ITQ system would not directly affect the physical or biological environment but may have an indirect effect. There may be positive indirect biological effects because the electronic system may be more efficient for both fishermen and managers and would allow for better tracking of catch and allocation.

In general, positive economic and social effects of online reporting requirements would likely be associated with decreased time and financial burden for Wreckfish ITQ holders, crew, and dealers to meet the requirements when compared to the paper-based reporting system. If dealers and shareholders currently involved in the fishery do not already have the computer or smartphone and internet connection to report electronically, **Preferred Alternative 2** would introduce a new cost. However, it is likely that these businesses are already equipped for electronic reporting, so this would not be a new or additional cost.

From an administrative perspective, the efficiency of the ITQ system could be improved by moving to an online system as proposed in **Preferred Alternative 2**. The current structure of the wreckfish program lends itself well to the online reporting system already in place for other Catch Share programs managed by the regional office (e.g., Gulf of Mexico IFQ programs, pilot catch share program for the Gulf Headboat Collaborative, etc.).

Preferred Alternative 2 would increase the administrative burden on NMFS initially related to development and implementation of an online system. These costs could be minimized by working through the already developed catch share system managed by the regional office described above.

2.3 Action 3. Modify the requirement to possess a commercial vessel permit for wreckfish.

2.3.1 Alternatives

Alternative 1 (No Action). To commercially harvest or sell wreckfish, a commercial vessel permit for wreckfish and a commercial permit for South Atlantic snapper grouper must have been issued to the vessel and the permit must be on board. To obtain a commercial vessel permit for wreckfish, the applicant must be a wreckfish shareholder; and either the shareholder must be the vessel owner, or the owner or operator must be an employee, contractor, or agent of the shareholder.

Alternative 2. To commercially harvest or sell wreckfish, a commercial vessel permit for wreckfish and a commercial permit for South Atlantic snapper grouper (unlimited) must have been issued to the vessel and the permits must be on board. To obtain a commercial vessel permit for wreckfish, the permit holder must be a wreckfish shareholder.

Preferred Alternative 3. To commercially harvest or sell wreckfish, a commercial permit for South Atlantic snapper grouper (unlimited) must have been issued to the vessel, the permit must be on board, and the permit holder must be a wreckfish shareholder.

Alternative 4. To commercially harvest or sell wreckfish, a commercial permit for South Atlantic snapper grouper (unlimited) must have been issued to the vessel and the permit must be on board.

Discussion:

Currently, in order to obtain a wreckfish permit, the entity must first be a wreckfish shareholder or the shareholder's agent, employee, or contractor (hereafter referred to as agent). In order to harvest wreckfish, the vessel owner or the operator of the vessel must be the wreckfish shareholder or agent of the shareholder and must also possess the limited access South Atlantic commercial snapper grouper permit. Therefore, the only restriction on entry into the Wreckfish ITQ program as a shareholder is the availability of wreckfish shares, while the restriction to harvest wreckfish is also limited by Snapper/Grouper permits. Since snapper grouper permits are limited access permits and can only be obtained by transfer, except for specific exceptions, an entity must obtain and exchange two such permits for one new permit, which may inhibit participation in the program.

The wreckfish permit was originally implemented via Amendment 3 to the Snapper Grouper FMP. As stated in Amendment 3, the purpose of the permit was to allow for collection of critical data such as catch per unit effort, size composition, reproduction and feeding habits. These data are important in monitoring the biological status of the fishery and its exploitation level. Upon implementation of the ITQ program, the wreckfish permit was retained. To obtain a wreckfish permit, an applicant must possess a certificate of percentage share which is generated by NMFS and sent to the shareholder.

The requirements to possess two permits in addition to owning ITQ shares is duplicative, and therefore, may be unnecessarily burdensome for program participants and managers. Additionally, requiring NMFS to determine whether an entity is an employee, contractor, or agent of the vessel owner is difficult without requesting more information than is typically requested of permit applicants and it creates additional administrative burden for applicants and NMFS. Further, a commercial vessel permit for snapper grouper is either a transferable commercial permit (also known as an unlimited permit) or a trip-limited commercial permit. A vessel for which a trip-limited permit for South Atlantic snapper-grouper has been issued is limited to 225 lb (102.1 kg) of snapper grouper.

2.3.2 Comparison of Alternatives:

Under the current system, in order to obtain a wreckfish permit, the entity must first be a wreckfish shareholder or the agent of a wreckfish shareholder. In order to harvest wreckfish, the vessel owner or the operator of the vessel must be the wreckfish shareholder or an employee, contractor, or agent of the shareholder and must also possess a South Atlantic commercial snapper grouper permit. (all current wreckfish permit holders also have the unlimited commercial snapper grouper permit.) Therefore, the only restriction on entry into the Wreckfish ITQ program as a shareholder is the availability of wreckfish shares, while the restriction to harvest wreckfish is also limited by the number of commercial Snapper/Grouper permits. Since snapper grouper permits can only be obtained by transfer, except for specific exceptions, an entity must obtain and exchange two such permits for one new permit, which may inhibit participation in the program.

In the electronic system, the vessel's permit holder must exactly match the shareholder account to account for harvesting rights, landings, cost recovery fees, etc. There are times when the shareholder's agent utilizes the vessel permitted to the agent and not the shareholder. Under this scenario, the electronic system would not be able to accurately account for the vessel with the wreckfish permit as it is not directly permitted to the shareholder.

Changing the permit requirement for wreckfish shareholders is an administrative action that would not directly affect the physical or biological environment. There may be positive indirect biological effects because **Alternative 2** and **Preferred Alternative 3** would remove the ability for an employee, contractor, or agent of the shareholder to participate in the fishery, leading to more direct involvement in the fishery by the wreckfish permit holder. **Alternative 4** would eliminate the wreckfish permit but would require that the shareholder have a snapper grouper unlimited permit. However, this action would not change how the fishery is prosecuted and, as such, would not have a direct biological impact on wreckfish, co-occurring species or protected species. All current wreckfish shareholders possess a snapper grouper unlimited permit, as would be required under **Alternative 2, Preferred Alternative 3, and Alternative 4.**

When compared to **Alternative 1 (No Action)** the proposed alternatives would be less burdensome on shareholders, as well as on NMFS (Table 2.3.2.1). **Alternative 2** is slightly more restrictive than **Preferred Alternative 3** as it maintains the requirement to purchase a commercial wreckfish permit. However, **Alternative 2** would require less information to be provided by the shareholder when compared to the requirements under **Alternative 1 (No Action)**. Additionally, **Alternative 2**, **Preferred Alternative 3**, and **Alternative 4** would create

fewer requirements to participate into the fishery, with **Alternative 4** having the lowest threshold for participation.

Additional or similar requirements for entry as those under **Alternative 1 (No Action)** may be implemented as part of the online reporting system (Action 2) which would affect the social effects of this action.

Table 2.3.2.1. Requirements to commercially harvest or sell wreckfish under each Action 3 alternative.

Requirement	Alternative 1	Alternative 2	Pref. Alternative 3	Alternative 4
Wreckfish Permit	X	X		
Snapper Grouper Permit	X	X (Unlimited)	X (Unlimited)	X (Unlimited)
Shareholder	X	X	X	
Employee, contractor, or agent of the shareholder.	X			

The administrative impacts of this action are expected to be minimal and similar between **Alternative 1 (No Action)**, **Alternative 2**, **Preferred Alternative 3**, and **Alternative 4**. The impacts will be associated with education and outreach, compliance, and law enforcement. In the online system, the vessel's permit holder must exactly match the shareholder account to account for harvesting rights, landings, cost recovery fees, etc. There are times when the shareholder's agent utilizes a vessel permitted to the agent and not the shareholder. The landings under this scenario are attributed the permit holder harvesting and are considered confidential to that permit holder. Under this scenario, the system would not be able to accurately account for the vessel with the wreckfish permit that is not directly permitted to the shareholder (**Alternative 1 (No Action)**).

Under **Alternative 1 (No Action)**, the existing Catch Share Online System (used for the Gulf of Mexico ITQ programs) would have to be significantly modified to handle the shareholder's agent's ability to harvest under a vessel not permitted to the shareholder. This will add significant administrative burden and delay implementation. While still substantial, there may be a reduced administrative burden with **Alternative 2** and **Preferred Alternative 3** if the online ITQ system is developed under Action 2. The online system will be able to keep track of shareholder landings amongst the active vessels. **Alternative 4** and **Alternative 3** would remove the requirement for a wreckfish permit thus eliminating some of the administrative burden. Under these alternatives, the Catch Share Online System would not require significant modifications. Even under **Alternative 4**, a vessel would still require allocation to harvest wreckfish. Allocation must be transferred from a wreckfish shareholder.

Alternative 4 could function similarly in the fishery to **Preferred Alternative 3** and **Alternative 2** if restrictions were placed on allocation transfer (e.g., transfer of allocation only allowed to an account with shares) (Action 9). This would be a more streamlined approach than using a separate permit to accomplish the same end.

2.4 Action 4. Wreckfish Individual Transferable Quota Online Shareholder Account Eligibility

2.4.1 Alternatives

Alternative 1 (No Action). To be eligible to open a wreckfish individual transferable quota shareholder account, individuals must be United States citizens, permanent resident aliens, or a corporation, partnership, or other entity eligible to own and control a United States fishing vessel.

Alternative 2. To be eligible to open a wreckfish individual transferable quota shareholder account, individuals must be entities who are United States citizens, permanent resident aliens, or a corporation, partnership, or other entity eligible to own and control a United States fishing vessel and hold a valid commercial snapper grouper unlimited permit.

Discussion

2.4.2 Comparison of Alternatives:

To be completed before the March 2024 Council meeting.

2.5 Action 5. Requirements for Obtaining and Maintaining Wreckfish Individual Transferable Quota Shares in the Online System

2.5.1 Alternatives

Alternative 1 (No Action). There are no requirements to obtain or maintain wreckfish individual transferable quota shares in an online system.

Alternative 2. To obtain (transfer into a shareholder account) or maintain shares (hold existing shares in a shareholder account), all shareholder accounts must be associated with entities who are United States citizens, permanent resident aliens, or a corporation, partnership, or other entity eligible to own and control a United States fishing vessel.

Alternative 3. To obtain (transfer into a shareholder account) all shareholder accounts must be associated with entities who are United States citizens, permanent resident aliens, or a corporation, partnership, or other entity eligible to own and control a United States fishing vessel and hold a valid commercial snapper grouper unlimited permit. To maintain shares (hold existing shares in a shareholder account) an account must hold a valid or renewable commercial snapper grouper unlimited permit or the shares will be reclaimed by the National Marine Fisheries Service (NMFS). A shareholder account is associated with a permit if the permit has the exact same entities listed on both the shareholder account and permit.

Discussion

2.5.2 Comparison of Alternatives:

To be completed before the March 2024 Council meeting.

2.6 Action 6. Share Divestment for Permit-Required Accounts

2.6.1 Alternatives

Alternative 1 (No Action). The Wreckfish ITQ program does not specify requirements for NMFS to reclaim shares of shareholder accounts not in compliance with the requirements to maintain shares.

Alternative 2. Shareholder accounts must be in compliance with the requirements to maintain shares, or NMFS will reclaim all shares in a shareholder account:

Sub-alternative 2a. On the effective date implementing this amendment.

Sub-alternative 2a. 1 year following the effective date implementing this amendment.

Sub-alternative 2b. 3 years following the effective date implementing this amendment.

Alternative 3. After implementation of this amendment, if a shareholder is no longer in compliance with the requirements to maintain shares, the shareholder(s) must divest of the account's shares, or the shares will be reclaimed by NMFS:

Sub-alternative 3a. 1 year following the end date on a permit.

Sub-alternative 3b. 3 years following the end date on a permit.

Discussion

2.6.2 Comparison of Alternatives:

To be completed before the March 2024 Council meeting.

2.7 Action 7. Redistribution of reclaimed shares to remaining shareholders.

2.7.1 Alternatives

Alternative 1 (No Action). There are no requirements for NMFS to reclaim and redistribute shares of shareholder accounts not in compliance with the requirements to maintain shares.

Alternative 2. Redistribute reclaimed shares to remaining shareholders equally.

Alternative 3. Redistribute reclaimed shares to remaining shareholders based on the proportion of remaining shares held by each remaining shareholder.

Alternative 4. Redistribute reclaimed shares to remaining shareholders based on landings history.

Sub-alternative 4a. Proportion of total wreckfish landings over the most recent five fishing years.

Sub-alternative 4b. Proportion of total wreckfish landings over the most recent three fishing years.

Discussion

2.7.2 Comparison of Alternatives:

To be completed before the March 2024 Council meeting.

2.8 Action 8. Wreckfish Individual Transferable Quota Requirements to Obtain Annual Allocation from Shares.

2.8.1 Alternatives

Alternative 1 (No Action). To obtain annual allocation from shares, an account must hold active wreckfish individual transferable quota shares.

Alternative 2. To obtain annual allocation from shares, an account must hold a valid or renewable commercial snapper grouper unlimited permit.

Alternative 3. To obtain annual allocation from shares, an account must hold active wreckfish individual transferable quota shares and be in good standing with respect to:

Sub-alternative 3a. Collection and submission of cost recovery fees.

Sub-alternative 3b. Wreckfish individual transferable quota reporting requirements.

Discussion

2.8.2 Comparison of Alternatives:

To be completed before the March 2024 Council meeting.

2.9 Action 9. Wreckfish Individual Transferable Quota Requirements to Obtain Annual Allocation through Transfer.

2.9.1 Alternatives

Alternative 1 (No Action). Do not limit who can receive annual allocation through transfer in the online system.

Alternative 2. Individual transferable quota annual allocation can be transferred only to individual transferable quota accounts holding shares. Eligible accounts must be held by individuals who are United States citizens or permanent resident aliens.

Alternative 3. Individual transferable quota annual allocation can be transferred only to accounts with an associated valid snapper grouper unlimited permit. Eligible accounts must be associated with individuals who are United States citizens or permanent resident aliens.

Discussion

2.9.2 Comparison of Alternatives:

To be completed before the March 2024 Council meeting.

2.10 Action 10. Retaining Annual Allocation before a Commercial Annual Catch Limit Reduction

2.10.1 Alternatives

Alternative 1 (No Action). Distribute 100% of the wreckfish annual allocation to individual transferable quota shareholders on January 1st of each year.

Alternative 2. Provide the Regional Administrator with the authority to withhold the amount of wreckfish annual allocation before distribution at the beginning of a year in which a commercial annual catch limit reduction is expected to occur. Withheld wreckfish annual allocation will be distributed to shareholders if the effective date of the final rule implementing the quota reduction has not occurred by:

Sub-alternative 2a. June 1.

Sub-alternative 2b. August 1.

Discussion

2.10.2 Comparison of Alternatives:

To be completed before the March 2024 Council meeting.

2.11 Action 11. Modify the commercial fishing year for wreckfish.

2.11.1 Alternatives

Alternative 1 (No Action). The commercial fishing year for wreckfish begins on April 15 and ends on April 14.

Preferred Alternative 2. The commercial fishing year for wreckfish begins on January 1 and ends on December 31.

Discussion:

The current SE Catch Share Online System has a required shut down time from December 31st at 6pm EST to January 1st 2pm EST to reset the system for the next calendar year. Consolidating the Wreckfish ITQ program reset time frame with the existing SE Catch Share programs' reset time frame will reduce impacts on participants in all programs. A calendar year fishing year would reduce administrative burden and system downtime as the Wreckfish ITQ program moves towards an online system. Additional system downtimes may affect all programs in the SE Catch Share Online System which currently include Gulf of Mexico Red Snapper IFQ, Gulf of Mexico Grouper-Tilefish IFQ, and law enforcement's Turtle Excluder Device reports.

2.11.2 Comparison of Alternatives:

Regardless of the alternative selected, this action is not anticipated to have negative biological impacts on wreckfish. Neither alternative would modify the fishery in such a way that it would result in impacts to wreckfish, co-occurring species or protected species.

The commercial fishing year does not directly affect landings or fishing behavior; therefore, the economic and social effects of **Alternative 1 (No Action)** and **Preferred Alternative 2** would likely be similar. Net economic benefits are not expected to change between the two alternatives.

If Alternative 2, under Action 2, is selected as preferred, this action would be needed to align the online system maintenance and updates with those of other catch share programs managed by NMFS. The need for this action is purely administrative and **Preferred Alternative 2** under Action 4 would significantly reduce the administrative burden compared to **Alternative 1** (**No Action**) because the updates and maintenance of the ITQ program can happen at the same time as the other programs.

2.12 Action 12. Pre-landing Notification Requirement for Commercial Vessels Participating in the Wreckfish Component of the Snapper Grouper Fishery.

2.12.1 Alternatives

Alternative 1 (No Action). Commercial vessels participating in the wreckfish component of the snapper grouper fishery are not required to notify the National Marine Fisheries Service in advance of landing wreckfish.

Alternative 2. The owner or operator of a commercial snapper grouper unlimited permitted vessel participating in the wreckfish component of the snapper grouper fishery is responsible for ensuring that the National Marine Fisheries Service is contacted at least three hours, but no more than 24 hours, in advance of landing using a National Marine Fisheries Service approved method. When providing advance notice of landing, they must include the expected date and time of landing, the pre-approved landing location, the estimated weight of wreckfish on-board the vessel, the dealer where the wreckfish are to be received, and the identity of the shareholder and vessel.

Note: NMFS would develop the specific details of how the notification system would operate and would provide the Council with the opportunity to have input into the system design. As part of this system, an approved emergency system could be developed if the software/hardware used becomes non-operational.

Discussion

2.12.2 Comparison of Alternatives:

To be completed before the March 2024 Council meeting.

2.13 Action 13. Modify offloading site requirements and establish approved landing locations for wreckfish.

2.13.1 Alternatives

Alternative 1 (No Action). Wreckfish must be offloaded only at the fixed facility of a dealer with a Gulf of Mexico and South Atlantic Dealer Permit. Wreckfish may be offloaded at a location other than a fixed facility of a dealer who holds a Gulf of Mexico and South Atlantic dealer permit if the wreckfish shareholder or the vessel operator advises the NMFS Office for Law Enforcement of the location not less than 24 hours prior to offloading. There are no landing location requirements for wreckfish.

Alternative 2. Remove the offloading site requirements for wreckfish. Individual transferable quota wreckfish must be landed at an approved landing location. Landing locations must be approved by NMFS Office for Law Enforcement prior to a vessel landing individual transferable wreckfish at these sites. Landing locations must be publicly accessible via public roads or navigable waters and no other condition may impede free and immediate access to the site by an authorized law enforcement officer.

Discussion

2.13.2 Comparison of Alternatives:

To be completed before the March 2024 Council meeting.

2.14 Action 14. Modify offloading time requirements for wreckfish.

2.14.1 Alternatives

Alternative 1 (No Action). Wreckfish may only be offloaded between the hours of 8 a.m. and 5 p.m., local time.

Preferred Alternative 2. Wreckfish may only be offloaded between the hours of 6 a.m. and 6 p.m., local time.

Alternative 3. Wreckfish may only be offloaded between the hours of 5 a.m. and 8 p.m., local time.

Alternative 4. Remove the requirement to offload wreckfish between the hours of 8 a.m. and 5 p.m., local time.

Discussion:
The program limits offloading of wreckfish between daylight hours, 8 am – 5 pm local time and only at fixed dealer facilities. Landing at other locations may be approved if the vessel captain or shareholder notifies Law Enforcement at least 24 hours prior to offloading.

Shareholders reported that they rarely, if ever, encounter law enforcement officials at the dock when they offload. The allowable offloading time requirement affects the efficiency of their fishing operations. If they arrive at the dock too late to offload, the fish must remain aboard overnight. Unloading the next day impedes the fleet from going back out on another trip by several hours, thereby reducing the number of daylight hours they can fish. Ideally, shareholders would like to see the approved offloading sites and times requirements removed. Shareholders feel these requirements are holdovers from when the program was initially begun with 49 participants, many more than are currently in the fishery. NMFS law enforcement has noted that enforcement has not typically been seen at these types of offloads due to difficulty in knowing when a vessel may be landing, stemming from a lack of VMS or other reporting measures.

The offloading site and time requirements were implemented in Amendment 5 to the Snapper Grouper FMP (1991). The rationale was to aid NMFS law enforcement in monitoring offloading of wreckfish by requiring offloading occur during hours when officers were typically working, and it was safe to be monitoring offloads (daylight hours). Offloads were required to take place at a specific location to ensure that they were monitored regularly to deter fishermen from landing fish in excess of their quota allocations and the total allowable catch.

Since fishermen report that they rarely encounter law enforcement when offloading, the intended outcome of approved offloading sites and times as a deterrent for landing unreported fish has not been realized. Law enforcement has noted that not knowing where/when a specific vessel was landing makes dockside monitoring challenging. Catch Share programs are required to include an effective system for enforcement, monitoring, and management of the program. The landing locations and fixed times for offload support the ability of the agency to enforce and monitor the program. These tools have proven successful in other catch share programs.

2.14.2 Comparison of Alternatives:

Regardless of the alternative selected, this action is not anticipated to have negative biological impacts on wreckfish. The commercial sector is constrained by an ACL and operates under a well-regulated ITQ system.

Offloading time requirements implement a cost on fishery participants since they may hinder fishing activity that otherwise would have occurred should such restrictions not be in place. Thus, less restrictive time requirements offer comparative economic benefits**. Alternative 1 (No Action)** offers the fewest hours that wreckfish may be offloaded (9 hours), followed by **Alternative 2** (12 hours), **Alternative 3** (15 hours), and **Alternative 4** (24 hours). As such, **Alternative 4** offers the highest potential economic benefits to fishery participants, followed by **Alternative 3**, **Alternative 2**, and **Alternative 1 (No Action)** (Table 2.6.2.1).

Additionally, Wreckfish ITQ shareholders have expressed frustration with the current offloading time requirements under **Alternative 1 (No Action)**. **Alternative 2**, **Alternative 3**, and **Alternative 4** would address a problem in the fisheries identified by stakeholders and may help to improve perceptions of the management process.

By increasing the time window for offloads, the administrative burden on the agency is increased. **Alternative 2** and **Alternative 3** would increase the window for offloads, providing a bit more flexibility for fishermen but increasing the potential administrative burden on law enforcement. Additionally, the increased time allotment for **Alternative 2** matches the offloading times used in the Gulf of Mexico IFQ programs and provide a consistency for law enforcement. These hours were chosen in the Gulf as they typically represent the daylight hours across the entire year and across time zones. **Alternative 3** would increase the hours and could jeopardize officer safety risk for law enforcement as it includes non-daylight hours throughout the year. **Alternative 4** would remove administrative burden from law enforcement and fishermen but may not provide an effective process for enforcement, monitoring and management. Under Magnuson-Stevens Act, all catch share programs need to include an effective system for enforcement, monitoring, and management of the program.

2.15 Action 15. Implement a cost recovery plan and associated conditions for the wreckfish individual transferable quota program.

2.15.1 Sub-Action 15-1. Implement a cost recovery plan for the wreckfish individual transferable quota program.

2.15.1.1 Alternatives

Alternative 1 (No Action). There is no cost recovery plan for the wreckfish individual transferable quota program.

This is not a legally viable alternative.

Preferred Alternative 2. Implement an individual transferable quota cost recovery plan. The transferable quota shareholder landing wreckfish would be responsible for collection and submission of the cost recovery fee to NMFS.

Alternative 3. Implement an individual transferable quota cost recovery plan. The dealer receiving wreckfish would be responsible for collecting the cost recovery fee from the shareholder landing the wreckfish and submitting the fee to NMFS.

Discussion:

Cost recovery, the collection of a fee to recover the actual cost directly related to the management, data collection, and enforcement of any limited access privilege program (LAPP), is mandated under section 304(d)(2)(A) of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). As stated in the Magnuson-Stevens Act, the level of fees charged under cost recovery shall not exceed the administrative costs incurred in running the program. The collection of the fee is to recover the actual costs directly related to the management, data collection, and enforcement of the program. These fees shall not exceed 3% percent of the ex-vessel value of the fish harvested under the program and must be collected at either the time of the landing, filing of the landing report, sale of fish, or in the last quarter of the calendar year in which the fish is harvested.

2.15.1.2 Comparison of Alternatives

Cost recovery was not included in the Wreckfish ITQ program when it was implemented in 1992 and cost recovery is currently not in place. Typically, the collection of cost recovery fees is not expected to affect the physical or biological environment, nor have any impact on the stock, co-occurring species or protected species.

Preferred Alternative 2 and **Alternative 3** differ in that, under **Alternative 3**, NMFS would allow the dealer to collect the fee on its behalf. This agent (the dealer) would then be responsible for submitting the fee to the agency. Submission may occur at time frames outside the required collection time frames listed in Magnuson-Stevens Act and in Sub-Action 15-2. **Preferred Alternative 2** does not utilize an agent on behalf of NMFS to collect the fee and therefore collection and submission must occur at the times stated with in MSA and chosen in sub-action 15.2.

NMFS will determine the percentage of the ex-vessel value of wreckfish landings that would be collected. The program would impose a fee of up to three percent of the ex-vessel value of wreckfish harvested under the ITQ program. Negative social and economic effects of the cost recovery fee would be associated with the cost of the fee itself as well as the time and materials required for completing the online forms and paying the fee. Payment of the fee will be through "*pay.gov*". If the online system is selected, the online system will redirect the user to "*pay.gov*" and state the amount owed.

Preferred Alternative 2 and **Alternative 3** would have similar administrative impacts to the agency. With the electronic ITQ program as proposed in **Action 2**, it is expected that the electronic system will track and collate these fees. The system will send the dealer to pay.gov to pay the fee.

2.15.2 Sub-Action 15-2. Collection of wreckfish individual transferable quota program cost recovery fees.

2.15.2.1 Alternatives

Alternative 1 (No Action). Do not implement requirements for the collection of the cost recovery fees for the wreckfish individual transferable quota program.

Alternative 2. Fees will be collected at the time of landing or report of landing.

Alternative 3. Fees will be collected upon the sale of such fish during the fishing season.

Preferred Alternative 4. Fees will be collected in the last quarter of the calendar year in which the fish is harvested.

Discussion:
Cost recovery, the collection of a fee to recover the actual cost directly related to the management, data collection, and enforcement of any LAPP is mandated under section 304(d)(2)(A) of the Magnuson-Stevens Act. The Magnuson-Stevens Act requires that NMFS collect the fees at the timeframe listed in the above alternatives and does not allow any other alternatives.

2.15.2.2 Comparison of Alternatives

Typically, the collection of cost recovery fees is not expected to affect the physical or biological environment, nor have any impact on the stock, associated species or protected species.

A cost recovery plan under **Alternative 2**, **Alternative 3**, and **Preferred Alternative 4** would result in an additional burden on Wreckfish ITQ shareholders when compared to **Alternative 1 (No Action)**. However, **Alternative 1 (No Action)** is not a legally viable alternative. Negative economic and social effects of the cost recovery fee would be associated with the cost of the fee itself as well as the time and materials required for completing the paperwork and paying the fee. Payment of the fee will be through "*pay.gov*". If the online system is selected (Action 2), the online system will redirect the user to "*pay.gov*" and state the amount owed.

Alternatives 2 and **3** allow for fees to be submitted in more frequent increments, thereby creating a smaller payment per transaction than **Preferred Alternative 4**. The submission of payments throughout the year reduces the risk of non-payment if a shareholder or dealer (sub-action 6.1) goes out of business before payment is received. While the payment may increase the burden on the payee, the increased frequency may ensure full payment is made and the collected fees not spent on other fishing business actions.

Preferred Alternative 4 may require less effort for the shareholder to pay fees since it would only be required once per year, and thus there may be a slightly lesser burden associated with this alternative in relation to **Alternatives 2** and **3**. **Preferred Alternative 4** would require the entire fee to be paid in one payment and not allow the expense to be paid in increments throughout the year. Under this alternative, the agency would need to set a timeline to stop calculating the fee in order for payment to be made in the last quarter. Those landings not included would be moved to the next year's cost recovery fee payments.

Alternative 2 and **Alternative 3** would have increased administrative impacts compared to **Preferred Alternative 4,** depending on the alternative selected in Sub-Action 15.1. Under **Alternative 2**, fees would be collected upon landing. **Alternative 3** may not differ as landing and sales often occur in the same time frame and ex-vessel price is required to calculate the cost recovery fee. Alternatives 2 and 3 may not be viable options if the fishermen are selected in sub-action 15.1. As the fee would need to be collected at the time of landing, report of landing, or sale, the agency may not be able to enter that information through pay.gov in sufficient time to collect the fee as stated by MSA. If the dealer was selected under sub-action 15.1, the fee could be collected by the dealer as an agent for NMFS, and submission could occur under alternatives in sub-action 15.3. **Preferred Alternative 4** would result in the fewest transactions between the permit holder and NOAA Fisheries but entails the greatest risk of unrecovered fees due to non-payment. With the electronic ITQ program as proposed in **Action 2**, it is expected that the electronic system will be able to track and collect these payments in a way that is less burdensome to permit holders, dealers and the agency compared to a paper-based program.

2.15.3 Sub-Action 15-3. Frequency of wreckfish individual transferable quota program cost recovery fee submission.

2.15.3.1 Alternatives

Alternative 1 (No Action). Do not implement requirements for the frequency of the collection of the cost recovery fees for the wreckfish individual transferable quota program.

Preferred Alternative 2. Cost recovery fee will be submitted once per year.

Alternative 3. Cost recovery fee will be submitted twice per year.

Alternative 4. Cost recovery fee will be submitted four times per year.

Alternative 5. Cost recovery fee will be submitted twelve times per year.

Discussion:

Cost recovery, the collection of a fee to recover the actual cost directly related to the management, data collection, and enforcement of any LAPP, is mandated under section 304(d)(2)(A) of the Magnuson-Stevens Act. This option is only available if NMFS uses an agent to collect the fee on their behalf. If no agent is used, the fee must be collected by NMFS at the timeframes listed in Sub-action 15-2, which will be limited by the administrative burden.

2.15.3.2 Comparison of Alternatives

Typically, the collection of cost recovery fees is not expected to affect the physical or biological environment, nor have any impact on the stock, associated species or protected species.

Alternative 1 (No Action) represents the lowest costs to fishery participants and lowest benefits to NMFS. However, **Alternative 1 (No Action)** is not a legally viable alternative. This sub-action is only available if NMFS uses an agent to collect the fee on their behalf. The total fees submitted would be similar across **Alternatives 2 (Preferred)**, **3**, **4** and **5** as the fee is based on the ex-vessel value. Less frequency between when the fees must be submitted may lead to less administrative related costs from those submitting the fees to the agency and thus comparatively higher economic benefits, although this will increase the risk to the agency in recovering the fee. The calculation of the fees will be automated under the electronic reporting system (Action 2), and therefore there are no differences in the administrative burden other than the one-time cost to create the automation. The administrative burden for monitoring the payment of the cost recovery fees will increase in relation to the frequency of payments. Under this notion, **Preferred Alternative 2** may require less administrative burden on the part of the entity submitting the fees to NMFS, since it would only be required once per year, this would be followed by slightly higher administrative related costs associated with **Alternative 3** (submittal twice per year), **Alternative 4** (submittal four times per year), and **Alternative 5** (submittal 12 times per year). Frequency of submission of fees should be weighed against the risk of non-payment. Lower frequency of submission increases the risk of non-payment, while higher frequency increases the administrative burden to monitor payments.

Negative social effects of the cost recovery fee would be associated with the cost of the fee itself as well as the time and materials required for completing the paperwork and paying the fee. Preferred **Alternative 2** may require less effort to collect fees since it would only be required once per year, thus there may be a slight time burden associated with this alterative in relation to **Alternatives 3**, **Alternative 3** and **Alternative 5**.

"*Pay.gov*" will be used for NMFS to collect the cost recovery fees. "*Pay.gov*" allows payment submission through credit cards or through using the Automated Clearing House (ACH). The ACH deducts payments directly from the checking account specified. Within "pay.gov", credit card payments are limited to less than $30,000 and allow for instant refunds for overpayment. There is no maximum limit for ACH payments, but refunds for ACH payments require additional paperwork and signatures from SERO and other NMFS staff. Refunds for ACH payments may take weeks to be realized.

Cost recovery for ITQ programs is a requirement of the Magnuson-Stevens Act and, as such, **Alternative 1 (No Action**) is not a viable alternative. With the electronic ITQ program as proposed in **Action 2**, it is expected that the electronic system will be able to track and collect

these fees in a way that is less burdensome to permit holders, dealers and the agency compared to a paper-based program. The administrative burden on the fishermen and the agency is expected to be less with less transactions and as such the administrative burden would be greatest for **Alternative 5** and the least for **Preferred Alternative 2**.

2.15.4 Sub-Action 15-4. Determination of wreckfish individual transferable quota program cost recovery fees.

2.15.4.1 Alternatives

Alternative 1 (No Action). Do not implement a requirement that specifies the type of value upon which cost recovery fees are based for the wreckfish individual transferable quota program.

Preferred Alternative 2. The cost recovery fee will be based on actual[1] ex-vessel value of the wreckfish landings.

Alternative 3. The cost recovery fee will be based on standard[2] ex-vessel value of the wreckfish landings as calculated by NMFS.

Discussion:
Cost recovery, the collection of a fee to recover the actual cost directly related to the management, data collection, and enforcement of any LAPP, is mandated under section 304(d)(2)(A) of the Magnuson-Stevens Act.

2.15.4.2 Comparison of Alternatives

Typically, the collection of cost recovery fees is not expected to affect the physical or biological environment, nor have any impact on the stock, associated species or protected species.

Alternative 1 (No Action) represents the lowest costs to fishery participants and lowest benefits to NMFS. The costs for fishery participants related to **Alternative 2** and **Preferred Alternative 3** would be situational and variable, therefore a comparison of economic and social benefits is not possible at this time. **Alternative 2** uses the actual ex-vessel value received at that time for the calculation of the cost recovery fee, thereby proportionally keeping all fishermen paying the same percentage. **Preferred Alternative 3** uses an average value for the ex-vessel price, resulting in some fishermen paying more in comparison to Alternative 2 and some paying less than under Alternative 2, based on the relation of the actual ex-vessel compared to the standard ex-vessel price. Preferred Alternative 3 will also have an increased administrative burden as the agency will need to calculate the standard ex-vessel price and publish the value in the federal

[1] Actual ex-vessel value is calculated by multiplying the wreckfish landings by the actual ex-vessel price, where the actual ex-vessel price is the total monetary sale amount a fisherman receives per pound of fish for ITQ landings from a registered ITQ dealer before any deductions are made for transferred allocation and goods and services (e.g. bait, ice, fuel, repairs, machinery replacement, etc.).

[2] Standard ex-vessel value is calculated by multiplying the wreckfish landings by the standard ex-vessel price, which is based on the average ex-vessel price for the previous fishing year and any expected price change in the current fishing year.

register. Consideration of confidentiality will need to be explored when calculating the standard ex-vessel value if there are less than 3 dealers or shareholders available for the calculation of standard ex-vessel price. With the electronic ITQ program as proposed in **Action 2**, it is expected that the electronic system will be able to track and collect these fees in a way that is less burdensome to permit holders, dealers and the agency compared to a paper-based program.

Chapter 3. Affected Environment

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

- **Habitat environment** (Section 3.1)
- **Biological and Ecological environment** (Section 3.2)
- **Economic environment** (Sections 3.3)
- **Social environment** (Sections 3.4)
- **Administrative environment** (Section 3.5)

3.1 Habitat Environment

3.1.1 Inshore/Estuarine Habitat

Many snapper grouper species utilize both pelagic and benthic habitats during several stages of their life histories: larval stages of these species live in the water column and feed on plankton. Most juveniles and adults are demersal (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, 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 daytime feeding migrations or seasonal shifts in cross-shelf distributions. Additional information on the habitat utilized by species in the Snapper Grouper Complex is included in Volume II of the Fishery Ecosystem Plan (FEP; SAFMC 2009b).

3.1.2 Offshore Habitat

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

The exact extent and distribution of productive snapper grouper habitat on the continental shelf north of Cape Canaveral, Florida is unknown. Current data suggest from 3 to 30% of the shelf is

suitable habitat for these species. These live-bottom habitats may include low relief areas, supporting sparse to moderate growth of sessile (permanently attached) invertebrates, moderate relief reefs from 0.5 to 2 meters (1.6 to 6.6 ft), or high relief ridges at or near the shelf break consisting of outcrops of rock that are heavily encrusted with sessile invertebrates such as sponges and sea fan species. Live-bottom habitat is scattered irregularly over most of the shelf north of Cape Canaveral, Florida, but is most abundant offshore from northeastern Florida. South of Cape Canaveral, Florida the continental shelf narrows from 56 to 16 kilometers (35 to 10 mi) wide off the southeast coast of Florida and the Florida Keys. The lack of a large shelf area, presence of extensive, rugged living fossil coral reefs, and dominance of a tropical Caribbean fauna are distinctive benthic characteristics of this area.

Rock outcroppings occur throughout the continental shelf from Cape Hatteras, North Carolina to Key West, Florida (MacIntyre and Milliman 1970, Miller and Richards 1979, Parker et al. 1983), which are principally composed of limestone and carbonate sandstone (Newton et al. 1971), and exhibit vertical relief ranging from less than 0.5 to over 10 meters (33 ft). Ledge systems formed by rock outcrops and piles of irregularly sized boulders are also common. Parker et al. (1983) estimated that 24% (9,443 km2) of the area between the 27 and 101 meters (89 and 331 ft) depth contours from Cape Hatteras, North Carolina to Cape Canaveral, Florida is reef habitat. Although the bottom communities found in water depths between 100 and 300 meters (328 and 984 ft) from Cape Hatteras, North Carolina to Key West, Florida is relatively small compared to the whole shelf, this area, based upon landing information of fishers, constitutes prime reef fish habitat and probably significantly contributes to the total amount of reef habitat in this region.

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 un-vegetated areas of little or no relief.

The distribution of coral and live hard bottom habitat as presented in the Southeast Marine Assessment and Prediction Program (SEAMAP) bottom mapping project is a proxy for the distribution of the species within the snapper grouper complex. The method used to determine hard bottom habitat relied on the identification of reef obligate species including members of the snapper grouper complex. The Florida Fish and Wildlife Research Institute (FWRI), using the best scientific information available on the distribution of hard bottom habitat in the South Atlantic region, prepared ArcView maps for the four-state project.

Plots of the spatial distribution of offshore species were generated from the Marine Resources Monitoring, Assessment, and Prediction Program (MARMAP) data. The plots serve as point confirmation of the presence of each species within the scope of the sampling program. These plots, in combination with the hard bottom habitat distributions previously mentioned, can be employed as proxies for offshore snapper grouper complex distributions in the south Atlantic region. Maps of the distribution of snapper grouper species by gear type based on MARMAP data can also be generated through the South Atlantic Council's Internet Mapping System at the above address.

3.1.3 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)). Specific categories of EFH identified in the South Atlantic Bight, which are utilized by federally managed fish and invertebrate species, include both estuarine/inshore and marine/offshore areas. Specifically, estuarine/inshore EFH includes Estuarine emergent and mangrove wetlands, submerged aquatic vegetation, oyster reefs and shell banks, intertidal flats, palustrine emergent and forested systems, aquatic beds, and estuarine water column. Additionally, marine/offshore EFH includes live/hard bottom habitats, coral and coral reefs, artificial and manmade reefs, Sargassum species, and marine water column.

EFH utilized by snapper grouper species in this region includes coral reefs, live/hard bottom, submerged aquatic vegetation, artificial reefs, and medium to high profile outcroppings on and around the shelf break zone from shore to at least 183 meters [600 ft (but to at least 2,000 ft for wreckfish)] where the annual water temperature range is sufficiently warm to maintain adult populations of members of this largely tropical fish complex. EFH includes the spawning area in the water column above the adult habitat and the additional pelagic environment, including Sargassum, required for survival of larvae and growth up to and including settlement. In addition, the Gulf Stream is also EFH because it provides a mechanism to disperse snapper grouper larvae.

For specific life stages of estuarine-dependent and near shore snapper grouper species, EFH includes areas inshore of the 30-meter (100-ft) contour, such as attached macroalgae; submerged rooted vascular plants (seagrasses); estuarine emergent vegetated wetlands (saltmarshes, brackish marsh); tidal creeks; estuarine scrub/shrub (mangrove fringe); oyster reefs and shell banks; unconsolidated bottom (soft sediments); artificial reefs; and coral reefs and live/hard bottom habitats.

EFH utilized by wreckfish (*Polyprion americanus*) off the coast of South Carolina and Georgia, is an area of extensive hard bottom habitat known as the Charleston Bump, on the northern Blake Plateau (Sedberry et al. 2001). This topographic feature is located in the Gulf Stream at depths of 400–800 m and roughly 160 km offshore. The rough topography of the Charleston Bump includes over 100 m of near vertical steep rocky relief with carbonate outcroppings, overhangs, and phosphorite–manganese flat hard bottom (Popenoe and Manheim 2001, Sedberry et al. 2001). The high topographic relief of the bottom deflects the Gulf Stream offshore and creates eddies, gyres, and upwellings in the Gulf Stream flow (Sedberry et al. 2001), which advect nutrients from the bottom into the euphotic zones, creating areas of high productivity (Lee et al. 1991).

Refer to Appendix D for more information about EFH and Ecosystem Based Management in the South Atlantic.

3.1.4 Habitat Areas of Particular Concern

Areas which meet the criteria for Essential Fish Habitat-Habitat Areas of Particular Concern (EFH-HAPCs) for species in the snapper grouper management unit include medium to high profile offshore hard bottoms where spawning normally occurs; localities of known or likely

periodic spawning aggregations; near shore hard bottom areas; The Point, The Ten Fathom Ledge, and Big Rock (North Carolina); The Charleston Bump (South Carolina); mangrove habitat; seagrass habitat; oyster/shell habitat; all coastal inlets; all state-designated nursery habitats of particular importance to snapper grouper (e.g., Primary and Secondary Nursery Areas designated in North Carolina); pelagic and benthic Sargassum; Hoyt Hills for wreckfish; the Oculina Bank Habitat Area of Particular Concern; all hermatypic coral habitats and reefs; manganese outcroppings on the Blake Plateau; South Atlantic Council-designated Artificial Reef Special Management Zones (SMZs); and deep water MPAs.

Areas that meet the criteria for EFH-HAPCs include habitats required during each life stage (including egg, larval, post larval, juvenile, and adult stages). Refer to Appendix D for detailed information on EFH and EFH-HAPCs for all Council managed species.

3.2 Biological and Ecological Environment

The waters off the South Atlantic coast are home to a diverse population of fish. The Snapper Grouper FMU contains 55 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 amendment. The specific components of the ecological environment affected by actions in this amendment include wreckfish, other affected species, and protected species. These components are described in detail in the following sections.

3.2.1 Wreckfish

3.2.1.1 Life History

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

Wreckfish have supported substantial fisheries in the eastern North Atlantic, Mediterranean, Bermuda, and the western South Atlantic, but concentrations of wreckfish adequate to support a

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

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

Vaughan et al. (2001) reported a maximum age of 35 years; however, off Brazil the maximum age for wreckfish has been reported as 76 years (Peres and Haimovici 2004). In a Marine Resources Monitoring, Assessment, and Prediction (MARMAP) report (Wyanski and Meister 2002), mature gonads were present in 60% of females at 751-800 mm, 57% at 801-850 mm, and 100% at larger sizes. The smallest mature female was 692 mm, and a portion of the females was immature at lengths between 576 and 831 mm. The estimate of length at 50% maturity (L50) was 790 mm (Gomperz model; 95% CI = 733-820). Mature gonads were present in 40% of males between 651 and 800 mm and 100% at larger sizes. The smallest mature male was 661 mm, and a portion of males was immature between 518 and 883 mm. L50 was not estimated for males because transition to maturity was abrupt.

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

3.2.1.2 Stock Status

In the 2023 second quarter report of status of stocks to U.S. Congress, wreckfish in the South Atlantic is listed as not undergoing overfishing and is not overfished Q2-2023-Stock-Status-Tables.pdf (noaa.gov). As of this writing, wreckfish has never been determined to be overfished or subject to overfishing.

A statistical catch-at-age assessment of the wreckfish stock in the South Atlantic was initially conducted in 2012 (Butterworth and Rademeyer 2012) and determined that wreckfish in the South Atlantic was not undergoing overfishing and was not overfished. Following the November 2012 Council's Scientific and Statistical Committee (SSC) meeting, and based on the recommendations of the SSC, the Council adopted a new third-party peer review process in 2013 and determined that this assessment should be subject to that process. The SSC reviewed the

revised assessment at their April/May 2014 meeting (Rademeyer and Butterworth 2014), accepted it as representing the best scientific information available on the current status of wreckfish in South Atlantic waters, and recommended it as appropriate for management decisions.

3.2.1.3 Landings

During fishing years 2009/2010-2016/2017, an average of 269,785 lb whole weight (ww) wreckfish were landed with an average weight of 32 lb ww (Table 3.2.1.3.1; Table 3.2.1.3.2)

Table 3.2.1.3.1. Wreckfish landings, average weight (lb ww), and percent (%) quota/ACL caught during fishing years 2009/2010-2016-2017.

Fishing Year	Landings (lb ww)	Quota/ACL (lb ww)	Average Weight (lb ww)	% Quota/ACL caught
2009/2010	217,229	2,000,000	35.8	11%
2010/2011	266,270	2,000,000	36.8	13%
2011/2012	318,809	2,000,000	38.6	16%
2012/2013	213,701	223,250	36.7	96%
2013/2014	216,542	223,250	34.5	97%
2014/2015	190,639	223,250	35.9	85%
2015/2016	359,081	433,000	27.5	83%
2016/2017	376,013	423,700	29.9	89%
Average	269,785	-	34.5	-

Source: Wreckfish Program Logbooks and Dealer Records, SEFSC Logbooks.

Table 3.2.1.3.2. Acceptable biological catch (ABC) and ACLs for wreckfish specified under Regulatory Amendment 22 (SAFMC 2015) where ACL = optimum yield (OY) = ABC. The ACL for 2020/2021 would remain in place until modified.

Fishing Year	New ABC (lb ww)	ACL (lb ww)	Commercial ACL (95%)	Recreational ACL (5%)
2015/2016	433,000	433,000	411,350	21,650
2016/2017	423,700	423,700	402,515	21,185
2017/2018	414,200	414,200	393,490	20,710
2018/2019	406,300	406,300	385,985	20,315
2019/2020	396,800	396,800	376,960	19,840
2020/2021	389,100	389,100	369,645	19,455
2021/2022	389,100	389,100	369,645	19,455

Source: SAFMC 2015 (http://safmc.net/wp-content/uploads/2016/06/Reg22_022615_FINAL.pdf).

3.2.2 Bycatch

Very little is known outside of the fishery dependent data available from the fishery conducted at the Charleston Bump off South Carolina. Available life history data reflect data from older and bigger fish, with low sample sizes for smaller, younger fish. Rademeyer and Butterworth (2014) estimated natural mortality (M) for wreckfish at 0.037 per year. Lytton et al. (2016) recommends using M at 0.09 for wreckfish stock assessment. In the wreckfish commercial sector, barrelfish (*Hyperoglyphe perciformes*) and red bream (*Beryx decadactylus*) are caught as bycatch (Goldman and Sedberry 2011) and are likely sold or used for personal consumption. Other

species collected by Goldman and Sedberry (2011) on vertical lines with baited hooks from 400 to 800 m depth, on and around Charleston Bump were: splendid alfonsino (*Beryx splendens*), conger eel (Conger oceanicus), gulper shark (*Centrophorus granulosus*), roughskin dogfish (*Cirrhigaleus asper*), and shortspine dogfish (*Squalus mitsukurii*). Fishermen could harvest one of these species and return co-occurring species to the water as "regulatory discards" (e.g., if the fish are under the size limit) or if undesirable; however, a portion of the discarded fish would not survive due to the depths at which these fish are caught. Wreckfish are rarely encountered by recreational fishermen and discard mortality would be 100% due to the depths at which they are captured.

3.2.3 Other Species Affected

This amendment is administrative in nature and would only apply to the wreckfish fishery.

3.2.4 Protected Species

NMFS manages marine protected species in the Southeast region under the Endangered Species Act (ESA) and the Marine Mammal Protection Act (MMPA). There are 29 ESA-listed species or distinct population segments (DPS) of marine mammals, sea turtles, fish, and corals managed by NMFS that may occur in federal waters of the South Atlantic or Gulf of Mexico. There are 91 stocks of marine mammals managed within the Southeast region plus the addition of the stocks such as North Atlantic right whales (NARW), and humpback, sei, fin, minke, and blue whales that regularly or sometimes occur in Southeast region managed waters for a portion of the year (Hayes et al. 2017). All marine mammals in U.S. waters are protected under the MMPA. The MMPA requires that each commercial fishery be classified by the number of marine mammals they seriously injure or kill. NMFS's List of Fisheries (LOF)3 classifies U.S. commercial fisheries into three categories based on the number of incidental mortality or serious injury they cause to marine mammals.

Five of the marine mammal species (sperm, sei, fin, blue, and NARW) protected by the MMPA, are also listed as endangered under the ESA. In addition to those five marine mammals, six species or DPSs of sea turtles [green (the North Atlantic DPS and the South Atlantic DPS), hawksbill, Kemp's ridley, leatherback, and the Northwest Atlantic DPS of loggerhead]; nine species or DPSs of fish (the smalltooth sawfish; five DPSs of Atlantic sturgeon; Nassau grouper; oceanic whitetip shark, and giant manta ray); and seven species of coral (elkhorn coral, staghorn coral, rough cactus coral, pillar coral, lobed star coral, mountainous star coral, and boulder coral) are also protected under the ESA and occur within the action area of the snapper grouper fishery. Portions of designated critical habitat for NARW, the Northwest Atlantic DPS of loggerhead sea turtles, and Acropora corals occur within the Council's jurisdiction.

NMFS completed a formal consultation and resulting biological opinion (Bi-Op) on the conservation regulations under the ESA and the authorization of the South Atlantic snapper grouper fishery in federal waters under the Magnuson-Stevens Act, including the fishery managed by the Snapper Grouper FMP, on threatened and endangered species and designated critical habitat dated December 1, 2016. NMFS concluded that the activities addressed in the consultation are not likely to jeopardize the continued existence of any threatened or endangered species.

Since completing the December 2016 Bi-Op, NMFS published several final rules that listed additional species and designated critical habitat. NMFS has reinitiated formal consultation to address these listings and concluded the authorization of the South Atlantic snapper grouper fishery in federal waters during the re-initiation period will not violate ESA Sections 7(a)(2) or 7(d). For summary information on the protected species that may be adversely affected by the snapper grouper fishery and how they are affected refer to Section 3.2.5 in Vision Blueprint Regulatory Amendment 27 to the Snapper Grouper FMP (SAFMC 2019a).

3.3 Economic Environment

The Wreckfish ITQ Program is one component of the Snapper Grouper FMP. As such, wreckfish harvesters are a small portion of the larger group of commercial fishing operations under the Council's and NMFS's jurisdiction. Additional economic information on the commercial sector of the snapper grouper fishery can be found Comprehensive Amendment Addressing Electronic Reporting for Commercial Vessels (under development) [3], Snapper Grouper Regulatory Amendment 30 (SAFMC 2020), Snapper Grouper Regulatory Amendment 27 (SAFMC 2020), Snapper Grouper Regulatory Amendment 28(SAFMC 2020), Snapper Grouper Abbreviated Framework Amendment 2 (SAFMC 2019), and Snapper Grouper Abbreviated Framework Amendment 1 (SAFMC 2018) to the Snapper Grouper FMP. This section will concentrate on components of the economic environment that are relevant to the Wreckfish ITQ Program.

3.3.1 Shareholders

The primary purpose of Amendment 20A (SAFMC 2012) was to remove "inactive" shareholders (i.e., those who had not harvested the quota pounds derived from their shares in many years) and redistribute the "inactive" shares they possessed to entities that had been harvesting the quota pounds associated with their shares. Inactive shareholders held a significant percentage of the shares and thus of the coupons/quota lb. Further, the limited number of share and coupon transfers suggested that the share and quota pound markets were not operating as intended to correct the problem, which in turn did not allow those quota pounds to be harvested. As Table 3.3.1.1 illustrates, Amendment 20A was successful in significantly reducing the number of shareholders. The number of shareholders in this table reflect the total number of share certificates held at any time during the fishing year.[4] There has been a notable increase in shareholders since the 2018/2019 fishing season. The number of shareholders remained at 6 from the 2014/2015 season to the 2017/2018 fishing season. In the 2018/2019 season there were 50% more shareholders than in the previous four years.

[4] The number of entities possessing share certificates in a single year will generally exceed the number of certificates.

Table 3.3.1.1. Number of wreckfish ITQ shareholders, fishing years 2009-2021.

Fishing Year	Number of Shareholders
2009/2010	27
2010/2011	26
2011/2012	33
2012/2013	11
2013/2014	7
2014/2015	6
2015/2016	6
2016/2017	6
2017/2018	6
2018/2019	9
2019/2020	8
2020/2021	9
2021/2022	9

Source: SERO SF, Permits and Shareholder databases.

Most of Amendment 20A's intended effects occurred prior to the effective date of the final rule (October 26, 2012) as numerous share transfers occurred in the preceding months. The high number of share transfers is reflected by the relatively large number of shareholders in 2011/2012. Inactive shareholders had an incentive to sell their shares prior to the effective date of the final rule as their shares would have been reverted to NMFS after that date and thus, they would not have received any economic compensation for those shares. Although the inactive shareholders may not have received as much as they would have liked, they were economically better off by selling their shares to active shareholders who intended to remain in the program. In addition, Amendment 20A provided information to active shareholders regarding what percentage of additional shares they could expect to receive as a result of inactive shares being reverted and redistributed. Although no entity would be allowed to acquire more than 49% of the total shares as a result of the new share cap established under Amendment 20A, some active shareholders wanted to increase their shares by more than what they were likely to get as a result of redistribution, and so those shareholders had an incentive to buy more shares than what they would have acquired as a result of redistribution.

Statistics regarding the distribution of shares across shareholders (share certificates) from 2017/2018 through 2021/2022 are provided in Table 3.3.1.2. These statistics only include shareholders that possessed shares at the end of each fishing year. These statistics also do not account for affiliations between shareholders (e.g., where a particular entity may have an ownership interest in multiple share certificates). One shareholder has maintained 49% of the share at the current cap from 2017-2021. Mean share ownership varied slightly over this time period and was 11.21% on average per shareholder from 2017-2021. Median share ownership has fallen in recent years to 5.19% whereas in years past median share ownership has been 16.67% (SAMFC 2019).

Table 3.3.1.2. Quota Share Statistics, 2017/2018-2021/2012. Shares are in percentages.

Statistic	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
Number of Shareholders	6	9	8	9	9
Minimum Shares	2.99	0.03	0.03	0.03	0.03
Maximum Shares	49.00	49.00	49.00	49.00	49.00
Median Shares	10.23	5.17	5.25	5.17	5.17
Mean Shares	16.67	11.11	12.50	11.11	11.11

Source: SERO SF, Permits and Shareholder databases.

3.3.2 Permits

Wreckfish shareholders must possess a valid South Atlantic snapper grouper unlimited permit (SG1) in order to harvest wreckfish. A vessel with a Snapper Grouper 1 (SG1) permit can harvest up to the full commercial trip limits for all snapper grouper species including wreckfish, per trip. Snapper grouper permits are limited access permits, meaning that no new permits can be issued. Snapper grouper permits expire approximately one year from renewal and will terminate if not renewed within one year of the expiration date.

In 2009, the number of SG1 permits was 639. The number of SG1 permits has decreased steadily over time, in large part due to the requirement, in most circumstances, to exchange two such permits for one new permit when requesting a permit transfer (Table 3.2.2.1).[5] Overall the cumulative decline in valid SG1 permits from 2009-2020 has been 16.2% (Table 3.2.2.1).

[5] Exceptions to this requirement are specified in CFR Section 622.171, paragraphs (b)(1)(i) and (ii).

Table 3.3.2.1. Number of valid and renewable South Atlantic commercial snapper grouper permits by calendar year, 2009-2016.

Year	Number of SG1 permits	Change in SG1 Permits	% Change in SG1 Permits
2009	639	-25	-3.76%
2010	624	-15	-2.35%
2011	615	-9	-1.44%
2012	604	-11	-1.79%
2013	592	-8	-1.32%
2014	584	-8	-1.35%
2015	571	-13	-2.23%
2016	565	-6	-1.05%
2017	554	-11	-1.95%
2018	549	-5	-0.90%
2019	543	-6	-1.09%
2020	535	-8	-1.47%

Source: SERO SF-Permits Database, accessed 9/14/2022.

According to Buck (2018), the average price of an SG1 permit was about $42,918 (2021$) in 2011. As of early 2018, the average price had increased to around $75,107 (2021$), or by 75% since 2011. Also, temporary use of an SG1 permit has become common. Although leasing of permits is not allowed under the regulations, fishermen have found ways around this restriction, such as by entering contracts indicating that a vessel that has an SG1 permit is being leased. Current data are insufficient to determine exactly how many permits are being "leased" under this and other types of private arrangements. However, Buck (2018) estimates that the average price of a 1-year "lease" associated with an SG1 permit was about $7,511 (2021$) in early 2018.[6]

In addition to having a valid SG1 permit, commercial vessels must also have a valid wreckfish permit to harvest wreckfish. Commercial wreckfish permits have open access as well as limited access characteristics. Commercial wreckfish permits are only issued to vessels owned by entities with shares in the Wreckfish ITQ program, or to agents of those entities, and thus are limited to a large extent by the number of shareholders in the program (see Section 3.3.1). However, shareholders that own multiple vessels can have permits on each vessel they own, and thus the number of permits can be larger than the number of shareholders. Also, commercial wreckfish permits are only issued for a single fishing year and thus expire but do not terminate, unlike limited access permits. Table 3.3.2.1 illustrates how the number of commercial wreckfish permits has changed from 2009 through 2020.

The number of permits declined from about 15 permits to 8 permits per year on average between the 2009-2016 time period or by almost 50%. The decline in permits is directly related to the decrease in shareholders as discussed in Section 3.3.1. The decline is directly and indirectly

[6] Depending on the nature of the agreement, this price may not only reflect the cost of the SG1 permit.

related to the Council's action to revert and redistribute "inactive" shares in Amendment 20A. The number of issued permits is still typically higher than the number of active vessels in each year (see Section 3.2.3), indicating shareholders apply for permits but sometimes do not actually use them for harvesting wreckfish in a particular year.

Also, although the number of shareholders was significantly greater than the number of permits from 2009-2011, the number of shareholders has been about the same as the number of permits in subsequent years. The number of permits was greater than the number of shareholders in 2014, 2016, 2019, and 2020 as some shareholders own multiple vessels and chose to put permits on more than one vessel. Also, when compared to the number of active vessels, the number of permits was more than double the number of active vessels in each year from 2009-2011. And though this was still the case in 2012, the number of permits and active vessels have largely been about the same in subsequent years, in large part due to the removal of "inactive" shareholders and thus permit holders as a result of Amendment 20A.

Table 3.3.2.1. Number of commercial wreckfish permits by calendar year, 2009-2016.

Year	Number of Permits
2009	15
2010	14
2011	17
2012	12
2013	7
2014	7
2015	5
2016	8
2017	8
2018	9
2019	12
2020	13

Source: SERO SF-Permits Database, accessed 9/14/2022.

3.3.3 Vessels

The information in Table 3.2.3.1 describes the activity of all 8 vessels that were active in the Wreckfish ITQ program from calendar years 2017 to 2021, including their activities in South Atlantic and Gulf of Mexico non-IFQ fisheries. Landings of wreckfish fluctuated during this time period, but on average have been increasing during the 2017-2019 time period. Average landings of wreckfish per vessel fluctuated between roughly 31,500 lbs gutted weight (gw) and 51,100 lbs gw. The maximum annual gross revenue earned by a single vessel during this time was $621,343 (2021 dollars), though the mean gross revenue was lower at about $223,938 and the median was lower still at around $187,800. Wreckfish in recent years has begun to make up the majority of these vessels total gross revenue, on average accounting for 63% of total gross revenue from 2017-2021. In 2021 wreckfish landings accounted for 72% of gross revenue for these vessels. Vessel participation was slightly fluid as not all of these vessels were active in the wreckfish ITQ fishery, or any other fishery covered by the Southeast Coastal logbooks in every

year during this time. The number of vessels that were active in the ITQ program in each year varied between 5 and 6 vessels, as can be seen in Table 3.2.3.1.

Table 3.3.3.2. Total revenue and revenue per vessel statistics for the 8 vessels active in the Wreckfish IFQ Program from 2017-2021 by year. All dollar estimates are in 2021 dollars.

Year	Number of Vessels	Statistic	Wreckfish Landings (gw)	IFQ Revenue	Other Logbook Revenue	Total Gross Revenue
2017	6	Max	85,819	$506,666	$604,908	$610,122
		Median	35,540	$145,813	$81,865	$298,553
		Mean	44,680	$176,141	$184,305	$282,625
		Total	223,401	$1,056,848	$921,527	$1,978,375
2018	5	Max	116,105	$621,343	$189,495	$621,343
		Median	38,338	$68,196	$65,344	$180,836
		Mean	51,095	$182,246	$89,649	$226,579
		Total	255,474	$911,229	$448,245	$1,359,473
2019	6	Max	96,541	$485,470	$180,558	$485,470
		Median	31,092	$81,161	$93,685	$156,497
		Mean	35,589	$145,115	$100,501	$210,528
		Total	213,536	$870,691	$603,006	$1,473,697
2020	6	Max	84,207	$505,002	$149,747	$505,002
		Median	27,821	$3,399	$98,452	$162,744
		Mean	37,515	$129,763	$88,207	$203,269
		Total	225,087	$778,580	$441,036	$1,219,616
2021	5	Max	105,137	$509,688	$101,205	$509,688
		Median	18,226	$72,262	$71,929	$140,427
		Mean	31,479	$169,472	$66,556	$196,690
		Total	220,352	$847,359	$332,782	$1,180,141

Source: Wreckfish Program Logbooks and SEFSC Logbook Series.

3.3.4 Dealers

Six dealers purchased wreckfish from shareholders from 2017 to 2020. Just as the number of active shareholders has fluctuated during this time period, so has the number of purchasing dealers, with between five and six dealers active in the wreckfish markets in any given year covered. The dealers are geographically dispersed, generally located near one of the active shareholders.

Wreckfish purchases have declined since 2017. Purchases of wreckfish landings declined by 43% in 2020 relative to 2017. Other species purchased by wreckfish dealers also declined greatly from 2017-2020. Other species purchases declined by 75% in 2019 relative to 2017. A modest increase in other species purchases occurred 2020 but was still less than half the purchases made in 2017. Overall gross revenue declined for wreckfish dealers by 63% in 2020 relative to 2017.

Table 3.3.4.1 summarizes the average annual purchase information on wreckfish and non-wreckfish purchases by the six dealer's active in the program.

Table 3.3.4.1. Average annual purchases for the dealers active in the Wreckfish ITQ Program from 2017-2020. All dollar estimates are in 2021 dollars.

Year	Number of Dealers	IFQ Purchases	Other Purchases	Total Gross Revenue
2017	5	$229,499	$2,075,907	$2,305,406
2018	5	$166,784	$496,653	$663,438
2019	6	$123,916	$499,422	$623,338
2020	6	$129,763	$726,898	$856,661

Source: Wreckfish Dealer Records, Southeast Fisheries Science Center ALS.

3.3.5 Economic Returns

Economic return measures for the wreckfish ITQ fishery have been estimated three times throughout the program's history, once in the first season of the ITQ program (Richardson 1994), the second for the 2012-2013 season (Yandle and Crosson 2015), and the latest being Liese and Crosson (Southeast Fisheries Science Center, pers. comm. 2023) for the 2021-2022 season. All analyses are based on a combination of wreckfish logbook data, wreckfish dealer data, and an economic survey at the vessel level. The economic surveys collect data on gross revenue, variable costs, fixed costs, as well as some auxiliary economic variables (e.g., market value of the vessel).

However, Liese and Crosson (2023) methodology has been updated to be comparable to those done for other SEFSC-monitored fisheries (e.g. Overstreet et al. 2017). Therefore, the estimates from these three studies are not directly comparable in terms of economic returns. Results from Liese and Crosson are reported in Table 3.3.5.1.

Table 3.3.5.1 provides estimates of the important economic variables at the annual level for all active wreckfish vessels in the calendar year 2021. Similar to the trip level, three of the most important estimates of economic returns are net cash flow, net revenue from operations,[7] and economic return on asset value. Of these measures, net revenue from operations most closely represents economic profits to the owner(s). Net revenue from operations is total annual revenue minus the costs for fuel, other supplies, hired crew, vessel repair and maintenance, insurance, overhead, and the opportunity cost of an owner's time as captain as well as the vessel's depreciation. Net cash flow is total annual revenue minus the costs for fuel, other supplies, hired crew, vessel repair and maintenance, insurance, overhead, loan payments, and purchases of annual allocation. Economic return on asset value is calculated by dividing the net revenue from operations by the vessel value. Net cash flow and net revenue from operations at the annual vessel level were both positive in 2021, generally indicating that wreckfish vessels in the commercial sector were profitable, though some vessels earned much greater profits than others did. Net cash flow and net revenue from operations averaged 36.4% and 30.4%, respectively,

[7] Net revenue from operations accrues to the vessel owner and, when applicable, the IFQ shareholder, who may not be the same entity.

while the economic return on asset value was approximately 50.8% during this time.

Table 3.3.5.1. Economic characteristics of Wreckfish trips in 2021. All monetary estimates are in 2021 dollars.

	Mean	% Of Revenue
Vessel Statistics		
Owner-operated 40%	47%	-
For Hire Active	0%	-
Days - Wreckfish	57	-
Days - Other Commercial fisheries	76	-
Days - For-Hire Fishing	0	-
Days - Non-fishing	0	-
Vessel Value	$207,738	-
Has Insurance	0%	-
Total Revenue	**$346,746.00**	**100.0%**
Commercial Fishing - Wreckfish	$204,609.00	59.0%
Commercial Fishing - Other fisheries	$142,137.00	41.0%
For-Hire Fishing	$0.00	0.0%
Costs		
Fuel	$21,356	6.2%
Other Supplies	$47,750	13.8%
Hired Crew	$108,778	31.4%
Vessel Repair & Maintenance	$21,163	6.1%
Insurance	$0	0.0%
Overhead	$4,942	1.4%
Loan and IFQ purchase payments	$16,650	4.8%
OC Owner-Captain Time	$26,837	7.7%
Depreciation	$10,387	3.0%
Net Cash Flow	**$126,108**	**36.4%**
Net Revenue from Operations	**$105,534**	**30.4%**
Economic Return (on Vessel Asset Value)	**50.8%**	

Source: Liese and Crosson (Southeast Fisheries Science Center, pers. comm. 2023).

3.3.6 Imports

Imports of foreign seafood products compete in the domestic seafood market and have in fact dominated many segments of the domestic seafood market. Imports aid in determining the price for domestic seafood products and tend to set the price in the market segments in which they dominate. Seafood imports can have downstream effects on the local fish market. At the harvest level, imports can affect the returns to fishermen through the ex-vessel prices they receive for their landings. As substitutes to domestic production, imports tend to cushion the adverse economic effects on consumers resulting from a reduction in domestic landings. The following

describes the imports of fish products that directly compete with domestic harvest of snapper grouper species including the species in this amendment.

Snappers

According to NMFS' foreign trade data, snapper are not exported from the U.S. to other countries. Thus, the following describes the imports of fresh and frozen snapper products, which directly compete with domestic harvest of snapper species. All monetary estimates are in 2021 dollars. As shown in Table 3.3.6.1, imports of fresh snapper products were 31.2 million lbs product weight (pw) in 2017. They peaked at 36.0 million lbs pw in 2021, an increase of 15% relative to 2017. Total revenue from snapper imports increased from $99.0 million (2021 dollars) in 2017 to a five-year high of $148.6 million in 2021. The average price per pound for fresh snapper products was $3.54 from 2017-2021 and has been steadily increasing reaching the highest price per pound in 2021. Imports of fresh snapper products primarily originated in Mexico or Central America and primarily entered the U.S. through the port of Miami.

Table 3.3.6.1. Annual pounds and value of fresh snapper imports and share of imports by country, 2017-2021.

	2017	2018	2019	2020	2021
Pounds of fresh snapper imports (product weight, million pounds)	31.2	30.5	32.8	32.4	36.0
Value of fresh snapper imports (millions $, 2021$)	99.0	103.5	115.3	113.4	148.6
Average price per lb (2021$)	$3.17	$3.39	$3.52	$3.50	$4.13
Share of Imports by Country					
Mexico	35.8	32.5	34.9	40.4	32.8
Nicaragua	15.4	17.0	14.6	15.1	13.3
Panama	14.8	16.6	13.9	11.0	14.0
All others	33.9	33.9	36.6	33.5	39.9

Source: NOAA Foreign Trade Query Tool, accessed 11/16/22

As shown in Table 3.3.6.2, imports of frozen snapper products were 12.8 million lbs pw in 2017. They peaked at 18.2 million lbs pw in 2021, an increase of 42% relative to 2017. Total revenue from frozen snapper imports increased from $38.2 million (2021 dollars) in 2017 to a five-year high of $66.6 million in 2021. The average price per pound for frozen snapper products was $3.20 from 2017-2021, but has been increasing in recent years . Imports of frozen snapper products primarily originated in Brazil or South America and primarily entered the U.S. through the port of Miami.

Table 3.3.6.2. Annual pounds and value of frozen snapper imports and share of imports by country, 2017-2021.

	2017	2018	2019	2020	2021
Pounds of frozen snapper imports (product weight, million pounds)	12.8	12.2	11.4	15.9	18.2
Value of frozen snapper imports (millions $, 2021$)	38.2	37.6	36.7	48.4	66.6
Average price per lb (2021$)	$2.98	$3.08	$3.22	$3.05	$3.65
Share of Imports by Country					
Brazil	61.0	63.8	54.6	55.4	58.6
Indonesia	11.0	11.3	6.8	5.4	3.9
Suriname	7.9	6.9	13.5	10.3	10.5
All others	20.1	17.9	25.0	28.9	27.0

Source: NOAA Foreign Trade Query Tool, accessed 11/16/22

Groupers

According to NMFS' foreign trade data,[8] grouper are not exported from the U.S. to other countries. Thus, the following describes the imports of fresh and frozen grouper products, which directly compete with domestic harvest of reef fish species. As shown in Table 3.3.6.3, imports of fresh grouper products were 12.3 million lb. pw in 2017. They peaked at 12.4.million lb. pw in 2018, but declined to 10.4 .million lb. pw by 2020. Total revenue from fresh grouper imports decreased from 2018 to 2020, but in 2021 remained the same as in 2016 at 55.7 million dollars. The average price per pound for fresh grouper products was $4.49 from 2017-2021, with a large decrease coming in 2020. Imports of fresh grouper products primarily originated in Mexico, Panama and Brazil.

[8] https://www.fisheries.noaa.gov/foss/

Table 3.3.6.3. Annual pounds and value of fresh grouper imports and share of imports by country, 2017-2021.

	2017	2018	2019	2020	2021
Pounds of fresh Grouper imports (product weight, million pounds)	12.3	12.4	11.3	10.4	12.2
Value of fresh Grouper imports (millions $, 2021$)	55.7	57.2	53.0	40.6	57.7
Average price per lb (2021$)	$4.54	$4.61	$4.68	$3.89	$4.73
Share of Imports by Country					
Mexico	58.8	58.0	57.9	67.6	53.8
Panama	12.2	9.0	8.1	8.0	12.0
Brazil	10.1	15.9	16.9	12.3	17.7
All others	19.0	17.1	17.0	12.2	16.5

Source: NOAA Foreign Trade Query Tool, accessed 01/25/23

As shown in Table 3.3.6.4, imports of frozen grouper products were 1.4 million lb. pw in 2017. They peaked at 4.6.million lb. pw in 2018, but declined to 2.2 million lb. pw by 2021. Total revenue from frozen grouper increased from $2.0 million (2021 dollars) in 2017 to $6.2 million in 2018, but subsequently declined to $5.1 million in 2021. The average price per pound for frozen grouper products was $1.67 from 2017-2021, and increased by 60% in 2021 relative to 2017. Imports of frozen grouper products primarily originated in Mexico, India, and Indonesia.

Table 3.3.6.4. Annual pounds and value of frozen grouper imports and share of imports by country, 2017-2021.

	2017	2018	2019	2020	2021
Pounds of frozen Grouper imports (product weight, million pounds)	1.4	4.6	3.5	0.8	2.2
Value of frozen Grouper imports (millions $, 2021$)	2.0	6.2	4.8	1.5	5.1
Average price per lb (2021$)	$1.46	$1.34	$1.37	$1.85	$2.33
Share of Imports by Country					
Mexico	47.2	79.2	79.2	33.7	54.3
India	29.3	11.2	11.2	25.9	18.1
Indonesia	16.3	4.0	3.0	1.1	10.9
All others	7.2	5.5	6.5	39.3	16.7

Source: NOAA Foreign Trade Query Tool, accessed 05/14/22

3.3.7 Economic Impacts of the ITQ Program

The commercial harvest and subsequent sales and consumption of fish generates business activity as fishermen expend funds to harvest the fish and consumers spend money on goods and services, such as red grouper purchased at a local fish market and served during restaurant visits. These expenditures spur additional business activity in the region(s) where the harvest and purchases are made, such as jobs in local fish markets, grocers, restaurants, and fishing supply establishments. In the absence of the availability of a given species for purchase, consumers would spend their money on substitute goods and services. As a result, the analysis presented

below represents a distributional analysis only; that is, it only shows how economic effects may be distributed through regional markets and should not be interpreted to represent the impacts if these species are not available for harvest or purchase.

Estimates of the U.S. average annual business activity associated with the commercial harvest of wreckfish in the South Atlantic were derived using the model[9] developed for, and applied in NMFS (2022), and are provided in Table 3.3.7.1. This business activity is characterized as full-time equivalent jobs, income impacts (wages, salaries, and self-employed income), and output (sales) impacts (gross business sales). Income impacts should not be added to output (sales) impacts because this would result in double counting.

The results provided should be interpreted with caution and demonstrate the limitations of these types of assessments. These results are based on average relationships developed through the analysis of many fishing operations that harvest many different species. Separate models for individual species are not available. From 2017 to 2021, on average wreckfish landings resulted in approximately $898,504 million in gross revenue (2021$). In turn, this revenue generated employment, income, value-added and output impacts of 107 jobs, $3.3 million, $4.6 million, and $8.9 million, respectively.

[9] A detailed description of the input/output model is provided in NMFS (2011). "A Users Guide to the National and Coastal State I/O Model." www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf

Table 3.3.7.1. Economic impacts of the Wreckfish ITQ program, 2017-2021. All dollar estimates are in thousands of 2021 dollars and employment is measured in full-time equivalent jobs.

Harvesters	Direct	Indirect	Induced	Total
Employment impacts	19	3	4	25
Income impacts	485	90	218	793
Total value-added impacts	517	324	373	1,214
Output Impacts	899	731	723	2,353
Primary dealers/processors	**Direct**	**Indirect**	**Induced**	**Total**
Employment impacts	4	2	3	8
Income impacts	158	146	138	442
Total value-added impacts	169	186	260	615
Output impacts	509	384	508	1,401
Secondary wholesalers/distributors	**Direct**	**Indirect**	**Induced**	**Total**
Employment impacts	2	0	2	4
Income impacts	94	28	99	222
Total value-added impacts	101	47	169	317
Output impacts	253	92	329	674
Grocers	**Direct**	**Indirect**	**Induced**	**Total**
Employment impacts	8	1	2	10
Income impacts	194	64	97	356
Total value-added impacts	207	104	165	475
Output impacts	332	169	324	824
Restaurants	**Direct**	**Indirect**	**Induced**	**Total**
Employment impacts	48	3	8	59
Income impacts	778	236	446	1,460
Total value-added impacts	829	422	751	2,002
Output impacts	1,517	660	1,482	3,659
Harvesters and seafood industry	**Direct**	**Indirect**	**Induced**	**Total**
Employment impacts	81	9	18	107
Income impacts	1,710	564	998	3,272
Total value-added impacts	1,823	1,083	1,718	4,623
Output impacts	3,509	2,036	3,366	8,910

3.4 Social Environment

As discussed in past amendments and reviews of the South Atlantic wreckfish fishery and associated ITQ program, the limited size of the fishery presents data confidentiality concerns that constrain the nature and extent of information that can be used for descriptive purposes. This section attends to such concerns while providing insight into the contemporary social environment associated with the fishery—as prescribed by National Standard 8 (NS-8) of the Magnuson-Stevens Act. In essence, NS-8 calls for an assessment of linkages between fishery resources and communities where such resources may be of local socioeconomic importance. As such, the following text focuses primarily on identification of communities from which participants in the wreckfish fishery administer and/or undertake their fishing operations, and on basic sociodemographic attributes of such communities.

A variety of sources are available to further inform interested readers about the social-environmental history of the wreckfish fishery and its evolution into a federally managed ITQ program. These include SAFMC (1991, 2011, 2019), Gauvin et al. (1994), and Yandle and Crosson (2015), among others.

3.4.1 Social Aspects of the Fishery and Community Distribution of Permits

As indicated in Table 3.4.1, vessels permitted for the wreckfish ITQ fishery were most recently homeported in coastal communities in Florida, Georgia, and South Carolina. This relates to the fact that the species is almost exclusively captured by intent at the aforementioned bathymetric feature known as the Charleston Bump (NOAA Fisheries 2023; Sedberry et al. 1999), an ocean area most readily accessible by capable vessels, captains, and crew operating from communities in southeast South Carolina.

For sake of reference, the central portions of the Charleston Bump are situated approximately 90 miles from Folly Beach in southeastern South Carolina; 190 miles from Jacksonville Beach in northern Florida; and 125 miles from Myrtle Beach in northeastern South Carolina. As such, while vessels moored at longitudes parallel to the wreckfish grounds can reach the area relatively quickly, voyages of considerable duration are required of vessels moored in northern and central Florida, and in southeastern North Carolina where small numbers of wreckfish-permitted vessels were homeported in years past. It should be noted, however, that distances can be minimized by captains who moor their vessels in harbors relatively close to the wreckfish grounds when the regulatory season is open between mid-April and mid-January.

Irrespective of place of mooring, all participating captains and crew must travel many scores of ocean miles to reach the preferred fishing grounds. As discussed by Buck (2018) in relation to other deepwater snapper grouper species in the South Atlantic, the effort requires sustained presence at sea. In turn, this necessitates sufficient fuel, food, water, and other essentials, including bait (typically squid), along with planning and preparation for shifting weather patterns, dynamic sea states and currents, and other factors related to navigating and fishing safely far from port for multiple days and nights.

With regard to harvest strategy, only vertically deployed hook-and-line gear may be used to legally harvest wreckfish. Given that wreckfish are often caught in particularly deep water, mainlines are necessarily long and therefore retrieved with hydraulic (bandit) reels. NOAA Fisheries (2023) reports that 1/8” cables are often used for mainlines, and discussions with

captains indicate that leader and (multiple) circle hooks are particularly stout and used with heavy bottom weights. Gear and its use are pertinent in socioeconomic terms, in this case requiring considerable investment, skilled deployment at sea, and application of time and energy to its proper maintenance.

When used in deepwater zones for various bottom-dwelling snapper grouper species, including wreckfish, the requisite gear and the overall approach is colloquially termed "deep-drop," with certain captains considered deep-drop specialists. Maintaining the desired position over targeted areas is said to be a particularly challenging aspect of such operations, requiring extensive skill and practice. While recreational pursuit of the wreckfish resource is possible, it is presently allowable only during July and August, with a bag limit of one fish per day per vessel (SAFMC 2023). Historic harvest levels were scant at best (e.g., see SAFMC 2019), ostensibly due to extensive time at sea requirements, challenging deepwater conditions, and the need for accumulated ecological knowledge to effectively pursue the species. Identification and reporting challenges associated with rarely caught species may also be involved.

Based on the recent levels of shareholder participation and investment in the wreckfish fishery, and the capacity of captains, crew members, and vessels to successfully reach and harvest the species, the number of permitted vessels remains limited in extent. Notably, wreckfish permit applicants must be ITQ shareholders, but shareholders need not need be vessel owners or operators—though some are—and while some shareholders own and/or operate single vessels for pursuit of wreckfish, others own and/or operate more than one such vessel.

The community distribution of wreckfish permits has tended to shift over time. For example, prior to 2015, a small number of permits were held by persons with mailing addresses in states outside the South Atlantic region. All permits beyond that date have been held only by persons with community addresses in Florida, Georgia, or South Carolina. Shifts in the continuity of permit-holding have also occurred. For example, a wreckfish permitted vessel that formerly was consistently homeported in Madeira Beach, Florida is longer present in that municipality, and there has been a recent increase in wreckfish permits held outside of Florida, namely along the central and southeast Georgia coastline, and in the Low Country region of coastal South Carolina. The greatest number of wreckfish permits has consistently been held by addressees in in Port Orange, a central Florida municipality of 62,596 persons, as documented by the U.S. Census Bureau in 2020.

Table 3.4.1 Community distribution of permitted wreckfish vessels: 2011 through 2020.

Community	Year									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Port Orange, FL	3	2	2	3	1	4	4	3	3	4
Key Largo, FL	1	1	2	2	2	2	2	3	3	3
Charleston, SC	1	1	1	1	1	1	1	1	1	1
Georgetown, SC	--	--	--	--	--	--	--	1	1	1
Crescent, GA	--	--	--	--	--	--	--	--	1	2
Townsend, GA	--	--	--	--	--	--	--	--	1	1
Indian Rocks Bch, FL	--	--	--	--	--	--	--	--	-	1
Daytona Beach, FL	--	--	--	--	--	--	--	--	1	--
New Smyrna, FL	2	2	--	--	--	--	--	--	--	--
Johns Island, SC	1	1	1	--	--	--	--	--	--	--
Jacksonville, FL	1	1	--	--	--	--	--	--	--	--
Wilmington, NC	1	1	--	--	--	1	--	--	--	--
Hatteras NC	1	1	--	--	--	1	--	--	--	--
Miami, FL	1	1	--	--	--	--	--	--	--	--
Galveston, TX	1	--	--	--	--	1	--	--	--	--
Darien, GA	1	--	--	--	--	--	--	--	--	--
Long Key, FL	1	--	--	--	--	--	--	--	--	--
St. Augustine, FL	1	--	--	--	--	--	--	--	--	--
Madeira Beach, FL	1	--	1	--	1	1	1	1	--	--
Holden Beach, NC	--	--	--	1	--	--	--	--	--	--
Total	17	11	7	7	5	11	8	9	11	13

Source: NMFS SERO Sustainable Fisheries (SF) Access permits database (accessed January 2023).

In addition to changes in the geographic distribution of permitted vessels, shifts in the continuity of *active* participation in the wreckfish fishery, defined here in terms of permitted vessels with documented landings, are also notable. Active participation is of particular social-environmental importance given an historical context in which wreckfish permits were and/or are not presently used on a consistent basis by certain shareholders. As discussed in Amendment 20A to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic (SAFMC 2011), this occurs for a variety of reasons, including periodic focus on other species, changing regulatory conditions in other fisheries, shifting dollar values of wreckfish in the seafood marketplace, failing capacities of certain captains to fish in the far offshore zone, and the retirement of formerly active captains, among others.

Yandle and Crosson (2015) provide similar insight into punctuated use and non-use of wreckfish permits, asserting that, in historical terms, certain participants departed or periodically minimized their participation in the fishery for reasons that include but are not limited to: heightened or renewed interest in other fisheries, concerns about safety at sea, and ITQ allocations that were perceived or experienced as economically insufficient. Importantly, however, the authors conclude that a pattern of sustained involvement by an increasingly limited number of vessels

may signify a maturing and increasingly well-ordered fishery/ITQ program rather than one that has faltered.

Finally, patterns of participation in the wreckfish fishery were also described in a 2019 review of the wreckfish ITQ program (SAFMC 2019b). Here, the authors discuss and graphically depict highly variable activity among the total of 18 vessels that were involved in the fishery during the period 2009 through 2016. The discussion states that: "some vessels participated for one year only, while others entered and left [the fishery] only to enter again a year or two later," and that [Vessel x] "was the *only* [operation] that consistently participated over the [seven-year] time period." Figure 3.4.1 below is provided as an update to that analysis. Of note in the figure is an apparent increase in the continuity of participation during the time-series by numerous vessels—arguably supporting the assertion of Yandle and Crosson (2015) that, although the size of the fleet has diminished, the fishery itself is increasingly sustainable in social terms as it matures over time.

	Year				
Vessel	**2017**	**2018**	**2019**	**2020**	**2021**
1	✓	✓	✓	✓	✓
2	✓	✓	✓	✓	✓
3	✓	✓	✓	✓	✓
4			✓	✓	✓
5			✓	✓	✓
6	✓	✓	✓	✓	
7	✓	✓			
8	✓				
Total	**6**	**5**	**6**	**6**	**5**

Figure 3.4.1. Vessels with landings in the South Atlantic wreckfish fishery: 2017-2021.
Source: NMFS Wreckfish ITQ Program Logbook Data (accessed January 2023)

3.4.2 Distribution of Wreckfish Landings by State

Given the data confidentiality concerns noted at the outset of this section, the small number of persons involved in the wreckfish fishery precludes numerical description of landings by individual community. However, it is possible to review trends in the geographic distribution of landings in more general terms. As discussed in the most recent review of the wreckfish ITQ program (SAFMC 2019), the species was landed primarily in Florida and South Carolina coastal communities during the period 2010 through 2016, with contributing vessels homeported in Florida, southeast North Carolina, and southeast South Carolina. More recent information, inclusive of calendar years 2017 through 2020, indicates that while wreckfish continued to be landed in harbors along the Florida and South Carolina coastline, a small percentage of the wreckfish catch was landed in North Carolina during the latter part of the time-series. Contributing vessels during this timeframe were homeported in communities along the Florida, Georgia, and South Carolina coastlines.

3.4.3 Engagement among Communities Involved in the Wreckfish Fishery

Figure 3.3.2 below depicts overall levels of engagement in the commercial fishing industry among communities that are in some manner involved in the regional wreckfish fishery, whether it be operation of wreckfish permitted vessels, holding of wreckfish shares, and/or transacting the species in the marketplace. Given the need to use the most valid and reliable data possible in the present analysis, the time-series presented here incorporates accumulative landings system (ALS) data for the years 2016 through 2020. ALS data for 2021 are presently being refined and validated per standardized NOAA Fisheries protocol.

The measure of engagement provided in the graphic is a generalizable composite indicator based on: (a) pounds of all seafood landed by the local commercial fleets, (b) associated ex-vessel revenues, and (c) the number of commercial fishery participants and seafood dealers present in a given community. The measure is a useful means for indicating where any social effects of prospective management actions for the wreckfish fishery could be experienced.

As can be discerned from the graphic, there is a notable decline in generalized engagement in commercial fisheries among the majority of South Atlantic communities recently involved in the wreckfish fishery. Noteworthy here is an extensive and widespread decline in commercial fisheries engagement among virtually all of the communities during 2020. It is posited that diminished engagement relates in part to the arrival of the COVID-19 virus in the U.S. early in 2020, resulting widespread industry shutdowns, and limited socioeconomic recovery that year (see Glazier et. al 2022). Up until that point in time, available data indicate that most of the communities depicted were extensively engaged in the commercial fishing industry, albeit with a gradual overall decline during the time-series. The communities of Crescent in Georgia and Wadmalaw Island in South Carolina are exceptions, though U.S. Census data indicate that neither of these sparsely populated rural communities has supported regionally significant levels economic activity in years past.

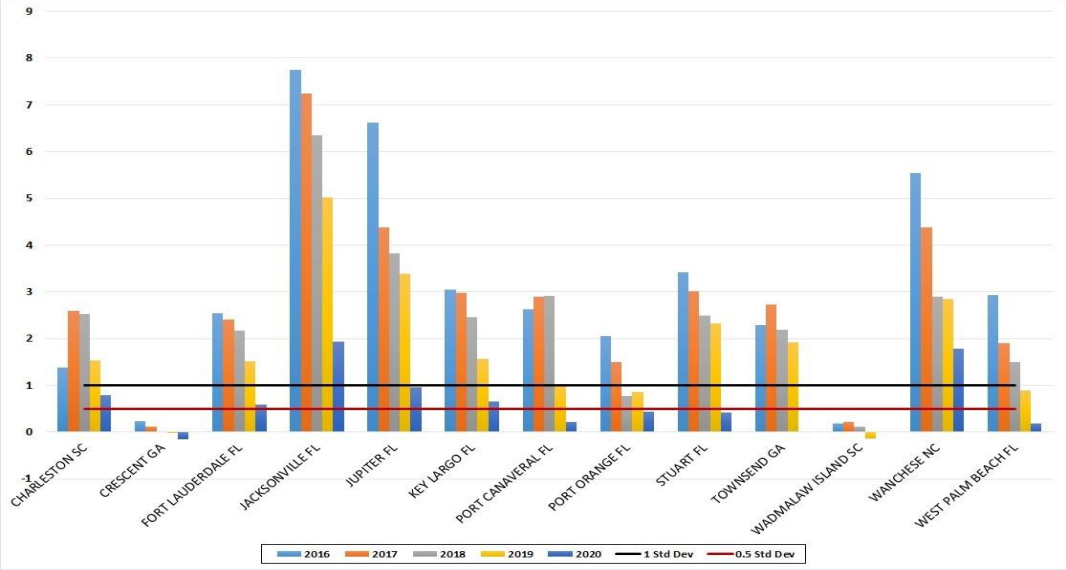

Figure 3.4.2. Overall levels of commercial fishing engagement among communities with some manner of involvement in the South Atlantic wreckfish fishery/ITQ program: 2016-2020.
Source: SEFSC, Community ALS Data File (accessed January 2023).

3.4.4 Environmental Justice

Executive Order (EO) 12898 was established in 1994 to require that personnel working in federal agencies examine the human health and socioeconomic implications of federal regulatory actions among low-income and minority groups and populations around the nation. The order requires that such agencies conduct programs, policies, and activities in a manner that ensures no individuals or populations are excluded, denied the benefits of, or subjected to discrimination due to race, color, or nation of origin. Of particular relevance in the context of marine fisheries, federal agencies are further required to collect, maintain, and analyze data regarding patterns of consumption of fish and wildlife among persons who rely on such foods for dietary and cultural purposes. In sum, the principal intent of EO 12898 is to require assessment and due consideration of any "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."

Established in 2021, Executive Order 13985 also calls for social equity in the context of federal decision-making and policy actions. Titled "Advancing Racial Equity and Support for Underserved Communities through the Federal Government," this order requires that federal policies and programs are designed and undertaken in a manner that delivers resources and benefits equitably to all citizens, including those who are members of historically underserved communities. Here, the phrase "underserved communities" refers to populations and persons that have been systematically denied full and equitable opportunity to participate in economic, social, and civic aspects of life in the nation.

Similarly, Executive Order 14008, established in 2021**,** calls on federal agencies incorporate Environmental Justice as part of their ongoing missions. This is to be accomplished through development of programs, policies, and activities that address any disproportionately high and/or adverse "human health, environmental, climate-related and other cumulative impacts on disadvantaged communities, as well as the accompanying economic challenges of such impacts."

Various data are available to indicate environmental justice issues among minority and low-income populations and/or indigenous populations and other historically underserved communities potentially affected by federal regulatory and other actions. With the intent of enhancing capacity to determine whether environmental justice issues may be affecting communities around the U.S. where fishing-related industry is an important aspect of the local economy, NOAA Fisheries social scientists undertook an extensive series of deliberations and review of pertinent data and literature. The scientists ultimately selected key social, economic, and demographic variables that could function to identify social vulnerabilities at the community level of analysis (see Jacob et al. 2013; Jepson and Colburn 2013). Census data such as community-specific rates of poverty, number of households maintained by single females, number of households with children under the age of five, rates of crime, and rates of unemployment exemplify the types of information chosen to aid in community analysis. Pertinent variables were subsequently used to develop composite indices that could be applied to assess vulnerability to environmental, regulatory, and other sources of change among the communities where fishing and related activities are important aspects of local society.

As provided in the Figure 3.4.3 below, three composite indices—termed here as poverty, population composition, and personal disruption—are applied to indicate relative degrees of socioeconomic vulnerability among those communities that are in some manner involved in the South Atlantic wreckfish fishery/ITQ program. Mean standardized scores for each community are provided along the y-axis, with means for the vulnerability measures and threshold standard deviations depicted along the x-axis. Scores exceeding the .5 standard deviation level indicate local social vulnerability to regulatory and other sources of change.

As can be discerned from the figure, available sociodemographic data sources discussed indicate that few of the communities recently involved in the South Atlantic wreckfish fishery appear vulnerable to regulatory or other sources of social or economic change. Exceptions include Crescent, Georgia which exceeds the two-standard deviation (std. dev.) threshold level for personal disruption, and the .5 std. dev. level for localized poverty. Poverty issues are also indicated for Fort Lauderdale and Key Largo in Florida, both of which meet the .5 std. dev. threshold for that set of variables. Finally, vulnerabilities are indicated for Fort Lauderdale and West Palm Beach, which respectively exceed and meet the .5 and 1.0 std. dev. thresholds for population composition.

The full range of data are not currently available to compatibly assess potential social vulnerabilities in the small communities of Townsend, Georgia and Wadmalaw Island, South Carolina. For sake of context, Wadmalaw Island is classified as a Census County Division (CCD; Charleston County), with a 2021 population of 2,504 persons, a 16.5% poverty rate, a median household income of $69,706, and a median age of 51.6 years (Census Reporter 2023). Townsend, Georgia is also classified as a CCD (McIntosh County), with a 2021 population of 3,350 persons, a 21% poverty rate, a median household income of $51,286, and a median age of 57 years. By way of comparison, the estimated 2021 poverty rate for Fort Lauderdale (pop. 181,666) is 13.8%, with a median household income of $64,912, and a median age of 45.1 years. The the national poverty rates estimated for the same year is 12.8%, with a median household income of $69,717, and a median age of 38.8 years (Census Reporter 2023).

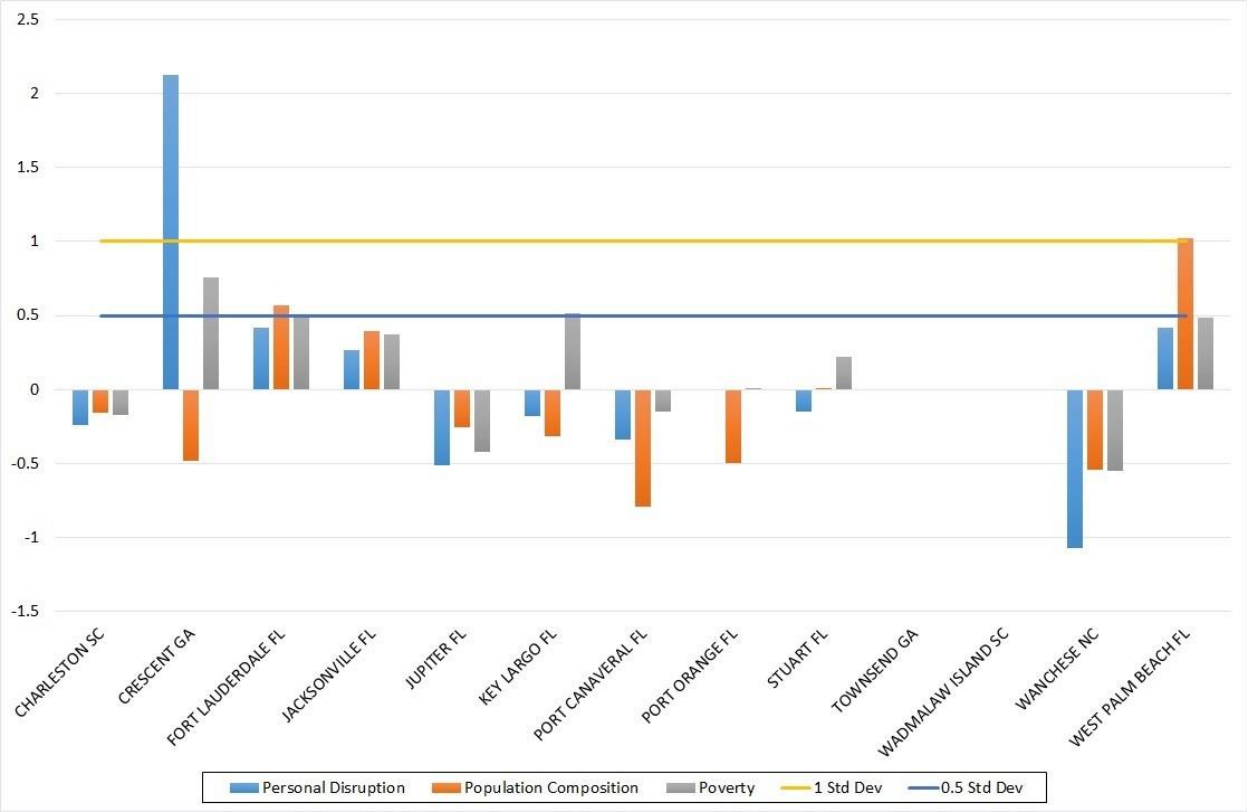

Figure 3.4.3. Social vulnerability indicators among communities involved in the South Atlantic Wreckfish Fishery/ITQ program.
Source: NMFS SERO Community Social Vulnerability Indicators Database (Accessed January 2023).

3.5 Administrative Environment

3.5.1 Federal Fishery Management

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

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

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

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

3.5.2 State Fishery Management

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

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

NMFS's State-Federal Fisheries Division is responsible for building cooperative partnerships to strengthen marine fisheries management and conservation at the state, inter-regional, and national levels. This division implements and oversees the distribution of grants for two national

(Inter-jurisdictional Fisheries Act and Anadromous Fish Conservation Act) and two regional (Atlantic Coastal Fisheries Cooperative Management Act and Atlantic Striped Bass Conservation Act) programs. Additionally, it works with the ASMFC to develop and implement cooperative State-Federal fisheries regulations.

3.5.3 Enforcement

Both the NMFS Office for Law Enforcement (NOAA/OLE) and the USCG have the authority and the responsibility to enforce Council regulations. NOAA/OLE agents, who specialize in living marine resource violations, provide fisheries expertise and investigative support for the overall fisheries mission. The USCG is a multi-mission agency, which provides at sea patrol services for fisheries missions.

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

The NOAA Office of General Counsel Penalty Policy and Penalty Schedule is available online at http://www.gc.noaa.gov/enforce-office3.html.

Chapter 4. Environmental Effects and Comparison of Alternatives

4.1 Action 1. Revise sector allocations and sector annual catch limits for wreckfish.

Alternatives*

1 (No Action). Retain the current commercial sector and recreational sector allocations as 95% and 5%, respectively.

2. Allocate 98% of the annual catch limit for wreckfish to the commercial sector and 2% to the recreational sector.

3. Allocate 99% of the annual catch limit for wreckfish to the commercial sector and 1% to the recreational sector.

4. Allocate 99.5% of the annual catch limit for wreckfish to the commercial sector and 0.5% to the recreational sector.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.1.1 Biological Effects

Biological effects are not expected to be substantially different between **Alternative 1 (No Action)** and **Preferred Alternative 2**, **Alternative 3**, and **Alternative 4** since the allocation percentages do not affect the total ACL established for this fishery and the commercial sector is well regulated under an IFQ program.

Amendment 25 (SAFMC 2011) made the first specific allocation of wreckfish to the recreational sector. That amendment allocated 95% of the total wreckfish ACL to the commercial sector and 5% to the recreational sector. Prior to Amendment 25 (SAFMC 2011), it was illegal for recreationally harvested wreckfish to be possessed unless the fisherman also held a South Atlantic Commercial Snapper Grouper Permit.

According to the Southeast Region Headboat Survey data, no wreckfish have been landed by South Atlantic headboats since the recreational sector was given its allocation (K. Donnelly, pers. comm., Beaufort Laboratory, 3/19/2019). Recreational landings are currently tracked using the Marine Recreational Information Program (MRIP). Wreckfish intercepts by MRIP are exceedingly rare. Since 1981, only one intercepted trip by a charter vessel off of Hatteras, NC in 2012 reported harvest of wreckfish (Pers. comm., NMFS, Fisheries Statistics Division, 3/19/2019). With wreckfish MRIP intercepts being so rare, it is uncertain how many wreckfish are being caught by the recreational sector, though it is likely the recreational sector is not fully utilizing its current allocation.

Substantial changes in fishing effort or behavior are not expected as a result of this action, thus the proposed allocations under this action would not be expected to result in any biological effects, positive or negative, on co-occurring species.

This action would not have any effects on protected species, Essential Fish Habitat (EFH), or EFH-Habitat Areas of Particular Concern. Similarly, subsequent actions in this amendment are not expected to impact protected species or habitats in the South Atlantic region

4.1.2 Economic Effects

In general, sector ACLs that allow for more fish to be landed can result in increased net economic benefits if harvest increases without notable long-term effects on the health of a stock. The sector ACL does not directly impact the fishery for a species unless harvest changes, fishing behavior changes, or the sector ACL is exceeded, thereby potentially triggering AMs such as harvest closures or other restrictive measures. As such, sector ACLs that are set above observed landings in a fishery for a species and do not change harvest or fishing behavior may not have realized economic effects each year. Nevertheless, sector ACLs set above observed average harvest levels do create a gap between the sector ACL and typical landings that may be utilized in years of exceptional abundance or accessibility of a species, thus providing the opportunity for increased landings and a reduced likelihood of triggering restrictive AMs. As such there are potential economic benefits from sector ACLs that allow for such a gap. While commercial landings after the 2016/17 fishing year have been notably below the commercial sector ACL, higher landings in the 2015/16 and 2016/17 fishing years indicate that the commercial fishery does have the capacity to more fully utilize the sector ACL. Recreational landings of wreckfish in the South Atlantic have not been recorded by MRIP in recent years, but landings do occur based on feedback from the Council's Snapper Grouper advisory panel and social media indicating the potential to utilize a portion of the recreational ACL should wreckfish be intercepted by MRIP in future years.

Under this notion, **Alternative 4** would allow for the highest potential net economic benefits for the commercial sector followed by **Alternative 3**, **Preferred Alternative 2**, and **Alternative 1 (No Action)**. The opposite would be true for the recreational sector, where **Alternative 1 (No Action)** would allow for the highest potential economic benefits followed by **Preferred Alternative 2**, **Alternative 3**, and **Alternative 4**.

4.1.3 Social Effects

Sector allocations exist for the recreational and commercial sectors already, **Alternative 1 (No Action)** would maintain the current allocation percentages. Under **Preferred Alternative 2**, **Alternative 3**, and **Alternative 4** there would be a decrease in the recreational percentage compared to **Alternative 1 (No Action)**. These alternatives could have some negative social effects if recreational fishermen, have a negative perception of this change due to the decrease in fishing opportunity and concerns about long-term social effects, especially if other actions further decreased harvest opportunities. However, the recreational sector has not met their ACL in recent years, which may subvert any negative perceptions.

While commercial landings after the 2016/17 fishing year have been notably below the commercial sector ACL, higher landings in the 2015/16 and 2016/17 fishing years indicate that the commercial fishery does have the capacity to more fully utilize the ACL. Currently shareholders have indicated that dips in landings are often due to unforeseen circumstances, such as boat breakdowns or weather that prevents vessels from getting far enough offshore to target wreckfish.

As mentioned above, there can be many different social effects that result as allocations are discussed further, and perceptions are formed. In fisheries management generally, there has often been resistance to further decreasing a given sector's percentage allocation. It is difficult to

predict the social effects with any allocation scheme for wreckfish as it would depend upon other management measures in conjunction with this one.

4.1.4 Administrative Effects

The overall administrative effects are likely to be minimal and the same across the alternatives. The wreckfish fishery is already managed under an ITQ program, which is a considerable administrative burden to the agency. Upon implementation of one of the action alternatives, there would be a temporary increased administrative burden to reallocate quota share to individuals in the program. However, this burden will be only at the implementation stage. Other administrative burdens that may result with approval and implementation of this amendment would take the form of development and dissemination of outreach and education materials for fishery participants and law enforcement. Administrative effects would not vary substantially between **Alternative 1 (No Action)** and **Preferred Alternative 2, Alternative 3**, **and Alternative 4**.

4.2 Action 2. Implement an electronic reporting system for the wreckfish individual transferable quota (ITQ) program.

Alternatives*

1 (No Action). Retain the current ITQ paper-based reporting system.

2. Implement an electronic system of reporting for the wreckfish ITQ program.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.2.1 Biological Effects

The current wreckfish ITQ program operates via paper-based logbooks and paper coupons. Moving to an electronic ITQ system is an administrative action that would streamline an already existing program and would not directly affect the physical or biological environment. There may be positive indirect biological effects, however, because the electronic system may be more efficient for both fishermen and managers and would allow for better tracking of catch and allocation. The commercial sector has not exceeded its ACL since the inception of the paper based ITQ program, but it is expected that an electronic ITQ program will allow for better management and execution of the fishery.

4.2.2 Economic Effects

The reporting burden under **Alternative 1 (No Action)** would likely be similar to that under **Preferred Alternative 2**. All wreckfish dealers are currently reporting landings electronically, thus implementing an electronic reporting system for the wreckfish ITQ program would not introduce new costs to dealers. If vessel owners involved in the fishery do not already have the necessary equipment and internet connection to report electronically, **Preferred Alternative 2** would introduce a new cost. To submit logbooks and usage of quota electronically, dealers and vessel owners would need access to an internet equipped device such as a laptop, tablet, or smartphone. While this would result in an additional cost for those that do not already have such a device or internet service, it is assumed that most vessel owners have existing access that would allow them to submit logbooks electronically. As such, the implementation of an electronic reporting system is not expected to result in notable new or additional costs.

Preferred Alternative 2 would allow for more timely monitoring of the wreckfish ITQ program in comparison to **Alternative 1 (No Action)**. As such, **Preferred Alternative 2** would result in increased net economic benefits in comparison to **Alternative 1 (No Action)**.

4.2.3 Social Effects

Section 3.4 (Social Environment) includes detailed information about fishermen and communities that may be affected by changes to reporting requirements for commercial wreckfish businesses. In general, positive social effects of electronic reporting requirements would likely be associated under **Preferred Alternative 2** when compared with **Alternative 1 (No Action)**, with decreased time and financial burden for wreckfish ITQ holders and captains to meet the requirements when compared to the paper-based reporting system.

The requirement for increased electronic reporting under **Preferred Alternative 2** would affect vessel owners who do not already use computer systems in their businesses or could result in errors. However, requiring all wreckfish ITQ shareholders to report electronically is expected to

result in broad social benefits by improving quota monitoring. There may also be some positive benefits for individual fishing businesses associated with having a consistent record of catch on their trips under this online system. This information could be used for marketing purposes to demonstrate the ability and knowledge of the captain and crew. Additionally, a database could be established that would allow business owners to access their own records and compare them to summarized reports at a local or regional level.

4.2.4 Administrative Effects

Alternative 1 (No Action) describes the current ITQ monitoring program which is a paper-based system that is managed through two different line offices: SERO and SEFSC. It is expected the program performance could be improved by moving to an electronic system as proposed in **Preferred Alternative 2**. See Section 2.2.2 for more details.

Alternative 1 (No Action) would result in no increase in administrative burden on NMFS as the ITQ program has already been developed and implemented. **Preferred Alternative 2** would substantially increase the administrative burden on NMFS initially related to development and implementation of an electronic system. These costs could be minimized by working through the electronic system described above. After development of the electronic system, the administrative burden of manually maintaining the existing ITQ program will be reduced. **Preferred Alternative 2** would also have an increased administrative impact associated with education and outreach. This is expected to be substantial during the outset of the program and will be reduced as the program becomes more familiar to the participants. In general, the more complicated the alternatives are in each action, the higher the one-time cost to build the system.

4.3 Action 3. Modify the requirement to possess a commercial vessel permit for wreckfish.

4.3.1 Biological Effects

Changing the permit requirement for wreckfish shareholders is an administrative action that would not directly affect the physical or biological environment. This action would not change how the fishery is prosecuted and as such would not have a direct biological impact on wreckfish, other affected species or protected species.

4.3.2 Economic Effects

Alternative 2 is similar to **Alternative 1 (No Action)** but is slightly less restrictive as it would remove some of the stipulations for receiving a commercial vessel permit for wreckfish. **Preferred Alternative 3** would be less stringent than **Alternative 1 (No Action)** and **Alternative 2**, since it would remove the requirement that a fishery participant must obtain a commercial vessel permit for wreckfish.

Alternative 4 would be the least restrictive of the alternatives being considered since it would remove the need to own wreckfish shares, remove the commercial vessel permit for wreckfish requirement, and would potentially open the wreckfish fishery to new vessels that already have a South Atlantic snapper grouper unlimited permit. This alternative would have the potential to add "armchair fishing" to the ITQ program where shareholders do not need to be harvesters. Nevertheless, **Alternative 4** would potentially create net economic benefits for the fishery by allowing the selling of annual allocation to non-shareholders, which may in turn allow for a more efficient market for annual allocation. The annual allocation would presumably go to entities that place the highest value on that annual allocation. Increasing the number of buyers would increase competition in the market for annual allocation, and thereby better ensure that annual allocation will end up with the entities that place the greatest economic value on it. Expanding the market for annual allocation would also help prevent leaving annual allocation unused, and therefore be more consistent with achieving optimum yield. Additionally, by allowing annual

Alternatives*

1 (No Action). To commercially harvest or sell wreckfish, a commercial vessel permit for wreckfish and a commercial permit for South Atlantic snapper grouper must have been issued to the vessel and the permit must be on board. To obtain a commercial vessel permit for wreckfish, the applicant must be a wreckfish shareholder; and either the shareholder must be the vessel owner, or the owner or operator must be an employee, contractor, or agent of the shareholder. To obtain a commercial vessel permit for wreckfish, the applicant must be a wreckfish shareholder; and either the shareholder must be the vessel owner, or the owner or operator must be an employee, contractor, or agent of the shareholder.

2. To commercially harvest or sell wreckfish, a commercial vessel permit for wreckfish and a commercial permit for South Atlantic snapper grouper (unlimited) must have been issued to the vessel and the permits must be on board. To obtain a commercial vessel permit for wreckfish, the permit holder must be a wreckfish shareholder. To obtain a commercial vessel permit for wreckfish, the applicant must be a wreckfish shareholder; and the shareholder must be the vessel owner.

3. To commercially harvest or sell wreckfish, a commercial permit for South Atlantic snapper grouper (unlimited) must have been issued to the vessel, the permit must be on board, and the permit holder must be a wreckfish shareholder.

4. To commercially harvest or sell wreckfish, a commercial permit for South Atlantic snapper grouper (unlimited) must have been issued to the vessel, the permit must be on board.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

allocation to go to where it is mostly highly valued, **Alternative 4** could maximize the extraction of resource rents which in this case would be the difference between the revenue received for landing wreckfish and the associated economic costs of landing wreckfish. By comparison, **Alternative 1 (No Action)** would forgo these potential net economic benefits of **Alternative 4**.

Under **Preferred Alternative 3** and **Alternative 4,** shareholders would no longer be required to pay for a wreckfish permit, which costs $10 per year. Assuming the current nine shareholders in the fishery are representative of future years, this would result in an annual cost savings of $90 (Table 3.3.1.1; 2021 dollars).

From the standpoint of considering potential economic costs to enter the fishery, **Alternative 2** would potentially generate the greatest costs to entry followed by **Alternative 1 (No Action)**, **Preferred Alternative 3**, and **Alternative 4**.

4.3.3 Social Effects

When compared to **Alternative 1 (No Action)** the proposed alternatives would be less burdensome on shareholders as well as NMFS. **Alternative 2** is slightly more restrictive than **Preferred Alternative 3** as it maintains the requirement to purchase a commercial wreckfish permit. However, **Alternative 2** would require less information to be provided by the shareholder when compared to the requirements under **Alternative 1 (No Action)**. Additionally, **Alternative 2**, **Preferred Alternative 3**, and **Alternative 4** would create fewer requirements to begin commercially harvesting wreckfish, with **Alternative 4** having the lowest threshold for harvest.

Additional or similar requirements for entry as those under **Alternative 1 (No Action)** may be implemented as part of the electronic reporting system (Action 2) which would affect the social effects of this action.

4.3.4 Administrative Effects

There may be a reduced administrative burden with **Alternative 2** and **Preferred Alternative 3** compared to **Alternative 1 (No Action)** if the electronic ITQ system is developed under **Action 2**. The electronic system will be able to automatically ensure the vessels used to harvest wreckfish are linked to the shareholder and determine if that vessel has a current valid permit. Under **Alternative 1**, the existing Catch Share system will require significant and complex structural changes to allow for the shareholder's agent's ability to harvest under a vessel not permitted to the shareholder. This may also require significant modifications to the permit application systems to identify the relationship between the agent and the shareholder. This will add significant administrative burden and cost and would likely delay the implementation timeline considerably. **Preferred Alternative 3** and **Alternative 4** would remove the requirement for a wreckfish permit thus eliminating some of the administrative burden and easing the data reconciliation and analysis of the program. Even under **Preferred Alternative 3** and **Alternative 4**, a vessel would still require annual allocation to harvest wreckfish. Annual allocation must be transferred from a wreckfish shareholder. The Council will need to consider some actions relating to maintenance and transferability of shares and allocation if the system moves to an electronic system. Therefore, **Alternative 4** could function similarly in the fishery to **Preferred Alternatives 3** and **2** if restrictions were placed on annual allocation transfers (e.g., transfer of allocation only allowed to accounts with shares). This

would be a more streamlined approach than using a separate wreckfish permit to accomplish the same end.

4.4 Action 4. Wreckfish Individual Transferable Quota Online Shareholder Account Eligibility

Alternatives*

1 (No Action). To be eligible to open a wreckfish individual transferable quota shareholder account, individuals must be United States citizens.

2. To be eligible to open a wreckfish individual transferable quota shareholder account, individuals must be entities who are United States citizens, and hold a valid commercial snapper grouper unlimited permit.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.4.1 Biological Effects

Determining ITQ shareholder account eligibility is an administrative action that would not directly affect the physical or biological environment. This action would not change how the fishery is prosecuted and as such would not have a direct or indirect biological effect on wreckfish, other affected species or protected species.

4.4.2 Economic Effects

Adding the requirement of a valid snapper grouper unlimited permit to be eligible to open a wreckfish individual transferable quota shareholder account under **Alternative 2** may add an additional cost to wreckfish fishery participants in comparison to **Alternative 1 (No Action)** if they do not already possess such a permit. If a fishery participant already holds a valid snapper grouper unlimited permit, then there would be no difference in economic effects between the two alternatives. Currently, all shareholders also have a valid snapper grouper unlimited permit, thus any additional costs would only be potentially incurred by new entrants.

4.4.3 Social Effects

The additional requirement to open a wreckfish individual transferable quote shareholder account (**Alternative 2**) will add additional cost and time for participants who do not currently possess a valid commercial snapper grouper unlimited permit. The additional burden would be experienced by new entrants into the fishery, as all current participants in the wreckfish individual transferable quota program possess a snapper grouper unlimited permit, so they would not experience additional social effects under **Alternative 2** when compared to **Alternative 1 (No Action)**.

4.4.4 Administrative Effects

Alternative 2 will have higher administrative impacts than **Alternative 1 (No Action**) as the agency will need to cross reference to check citizenship status of shareholders and permit status. The cost for this may be minimized by using the existing structure and methods in the current Catch Share system, that automatically links the shareholder with the citizenship information collected by the permits system. Both **Alternative 1 (No Action)** and **Alternative 2** add administrative burden in the form of cost to the agency in building an online system as well as the need for increased outreach and education to ensure participants understand the electronic system. Once implemented, there would be no difference in the administrative effects between the alternatives because the system will use automated processes to reflect changes in citizenship or permit status for each shareholder account. **Alternative 2** would also increase the administrative impacts to the agency due to increased need for outreach and education.

4.5 Action 5. Requirements for Obtaining and Maintaining Wreckfish Individual Transferable Quota Shares in the Online System

Alternatives*

1 (No Action). No requirements to obtain or maintain wreckfish individual transferable quota shares in an online system.

2. To obtain or maintain shares all shareholder accounts must be associated with individuals who are United States citizens.

3. To obtain all shareholder accounts must be associated with entities who are United States citizens and hold a valid commercial snapper grouper unlimited permit. To maintain shares an account must hold a valid or renewable commercial snapper grouper unlimited permit.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.5.1 Biological Effects

Establishing requirements for obtaining and maintaining ITQ shares is an administrative action that would not directly affect the physical or biological environment. This action would not change how the fishery is prosecuted and as such would not have a direct or indirect biological effect on wreckfish, other affected species or protected species.

4.5.2 Economic Effects

Under **Alternative 1 (No Action),** there would be no requirements to obtain or maintain wreckfish individual transferable quota shares in an online system. Thus, this alternative would have the lowest barrier to entry into the fishery and least costly to participants. **Alternative 2** would be more restrictive and create more of a barrier to entry since it may limit potential fishery participants to those who meet the qualifications. **Alternative 3** would be the most restrictive of the alternatives considered since it would include all of the requirements of **Alternative 2** as well as require a valid commercial snapper grouper unlimited permit. This permit requirement may add an additional cost to wreckfish fishery participants in comparison to **Alternative 1 (No Action)** and **Alternative 2** if they do not already possess such a permit. If a fishery participant already holds a valid snapper grouper unlimited permit, then the economic effects would be similar between the **Alternative 2** and **Alternative 3**. Currently, all shareholders also have a valid snapper grouper unlimited permit, thus any additional costs would only be potentially incurred by new entrants.

4.5.3 Social Effects

Requirements to obtain and maintain wreckfish individual transferable quota directly affect who is able to participate in the wreckfish fishery and thus which communities are able to experience the social benefits of wreckfish shares. **Alternative 1 (No Action)** would allow any individual to obtain and maintain wreckfish ITQ shares in the online system, while **Alternative 2** and **Alternative 3** set up increasing requirements for operating in the online system. Lower requirements to obtain and maintain shares may allow the benefits of the wreckfish individual transferable quota program to be spread throughout the South Atlantic region as opposed to concentrated in a few communities. Alternatively, stricter requirements for obtaining and maintaining shares, specifically **Alternative 3**, ensure that those individuals with shares also meet the requirements to harvest wreckfish (**Action 3**) ensuring that the benefits from shares have the potential to be realized.

4.5.4 Administrative Effects

Alternative 2 and **Alternative 3** will have higher administrative effects compared to **Alternative 1 (No Action)** as the online system will need to be developed to be able to cross reference with the permits database to verify citizenship status and permit status. **Alternative 3** would have a larger administrative burden for the development of the system as both citizenship status and permit status would need to be checked. Once implemented, the system would automatically check the requirements for either **Alternative 2** or **Alternative 3** and maintenance costs would be similar. Both **Alternative 2** and **Alternative 3** add an administrative burden in the form of cost to the agency in building an online system as well as the need for increased outreach and education to ensure participants understand the electronic system. **Alternative 1 (No Action)** would have the least development requirements and as such the least administrative burden.

4.6 Action 6. Share Divestment for Permit-Required Accounts

Alternatives*

1 (No Action). NMFS will not reclaim shares of shareholder accounts not in compliance with the requirements to maintain shares.

2. Shareholder accounts must be in compliance with the requirements to maintain shares, or NMFS will reclaim all shares in a shareholder account:
- 2a. Effective date.
- 2b. 1-year
- 2c. 3-years

3. After implementation of this amendment, if a shareholder is no longer in compliance with the requirements to maintain shares, the shareholder(s) must divest of the account's shares, or the shares will be reclaimed by NMFS:
- 3a. 1-year
- 3b. 3-years

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.6.1 Biological Effects

Establishing a protocol for share divestment is an administrative action that would not directly affect the physical or biological environment. This action would not change how the fishery is prosecuted and as such would not have a direct or indirect biological effect on wreckfish, other affected species or protected species.

4.6.2 Economic Effects

Under **Alternative 1 (No Action)**, the Wreckfish ITQ program does not specify requirements for NMFS to reclaim wreckfish shares from non-compliant shareholders. This would be a benefit for such shareholders but could represent a cost to other shareholders and the fishery as a whole if the non-compliant shareholders are not utilizing their quota. **Alternative 2** and **Alternative 3** would allow NMFS to reclaim these shares and make them available to other compliant shareholders in the fishery. Thus, this could lead to better utilization of the commercial wreckfish quota as a whole and increase net economic benefits. The sub-alternatives of **Alternative 2** and **Alternative 3** specify when such an action would occur and how long non-compliant shareholders can take to come into compliance or face the cost of forfeited shares. These sub-alternatives specify the time when the costs and benefits of **Alternative 2** and **Alternative 3** may be incurred by both non-compliant and compliant shareholders.

Non-compliant shareholders would have a preference for sub-alternatives that allow more time to sell their shares or come into compliance, thereby mitigating the potential economic costs and increasing the likelihood of economic benefits. Thus, for non-compliant shareholders, net economic benefits would be highest under **Alternative 1 (No Action)**, followed by **Sub-alternative 2b** and **3b**, **Sub-Alternative 2a** and **3a**, and **Sub-alternative 2a**. The ranking for compliant shareholder holders that may be able to obtain shares would be the opposite.

4.6.3 Social Effects

Under **Alternative 1 (No Action)**, there are no specific requirements for NMFS to reclaim and redistribute shares of a shareholder account that is no longer in compliance with the requirements to maintain wreckfish individual transferable quota shares. **Alternative 2** and **Alternative 3** specify requirements and would authorize NMFS to reclaim shares from shareholder accounts that were not in compliance with the requirements to maintain shares (**Action 5**) and would prevent individuals from holding on to shares that they did not have the ability to utilize, ensuring that the social benefits of wreckfish individual transferable quota shares were fully realized and utilized by communities. **Sub-alternative 2a**, **Sub-alternative 2b**, and **Sub-**

alternative 2c, would establish the time period for current shareholders to come into compliance with the requirements to maintain shares, with **Sub-alternative 2a** being the most restrictive. Similarly, **Sub-alternative 3a** and **Sub-alternative 3b** would establish the time a shareholder who has fallen out of compliance with regulations has to come back into compliance before NMFS reclaims their shares. While a shorter time period would ensure that social benefits lost from wreckfish shares not being fully utilized are minimal, a longer time period allows shareholders leeway in the case of unexpected challenges with the permit renewal process.

4.6.4 Administrative Effects

The agency would need to track compliance with regulations for **Alternative 2** and **Alternative 3** and associated sub-alternatives when compared with **Alternative 1 (No Action),** and create a mechanism to reclaim and hold shares from accounts not in compliance with the regulation. This will require increased cost and administrative burden to the agency to track accounts, create an account to hold the reclaimed shares, and create a method to transfer shares and record the reason for the reclamation. The administrative effects of the sub-alternatives under Alternative 2 and 3 would be similar in that the system would use the creation of automated code to track dates. This burden may be eased by modifying the existing catch share system to all accommodate this action. There would also be an increased staff burden as the agency would need to create a protocol for notifying shareholders prior to reclamation. This could involve using certified mail to notify the shareholder of the reclamation date. The analysis and monitoring of the program would also have increased burden as the agency would need to ensure that all monitoring measures can account for NMFS held reclaimed shares.

4.7 Action 7. Redistribution of reclaimed shares to remaining shareholders.

Alternatives*

1 (No Action). NMFS will not reclaim and redistribute shares of shareholder accounts not in compliance with the requirements to maintain shares.

2. Redistribute reclaimed shares to remaining shareholders equally.

3. Redistribute reclaimed shares to remaining shareholders based on the proportion of remaining shares held by each remaining shareholder.

4. Redistribute reclaimed shares to remaining shareholders based on landings history.
- 4a. Five years
- 4b. Three years

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.7.1 Biological Effects

Establishing a protocol for the redistribution of shares to remaining shareholders is an administrative action that would not directly affect the physical or biological environment. This action would not change how the fishery is prosecuted and as such would not have a direct or indirect biological effect on wreckfish, other affected species or protected species.

4.7.2 Economic Effects

Under **Alternative 1 (No Action)**, NMFS would not have specific requirements under the Wreckfish ITQ program to reclaim wreckfish shares from non-compliant shareholders. This would be a benefit for such shareholders but could represent a cost to other shareholders and the fishery as a whole if the non-compliant shareholders are not utilizing their quota. **Alternatives 2** through **4** would result in a net economic benefit for compliant shareholders in the wreckfish fishery in comparison to **Alternative 1 (No Action)** due to the redistribution of shares to these participants. **Alternatives 2** through **4** would likely lead to better utilization of the wreckfish quota and an increase in net economic benefits through harvesting or utilizing the redistributed quota. Additionally, this redistribution of quota would provide a net economic benefit to recipients from the proceeds of the quota if sold.

4.7.3 Social Effects

Under **Alternative 1 (No Action)**, NMFS would not have specific requirements under the Wreckfish ITQ program to reclaim and redistribute shares of a shareholder account that is no longer in compliance with the requirements to maintain wreckfish individual transferable quota shares. **Alternative 2**, **Alternative 3** and **Alternative 4** and its sub-alternatives would allow NMFS to reclaim and redistribute shares that were not held by accounts in compliance with the requirements to maintain shares (**Action 5**). How **Alternative 2**, **Alternative 3** and **Alternative 4** and its sub-alternatives would affect fishing communities in the South Atlantic would depend on the distribution of active shares and their locations at the time of redistribution. Overall, redistributing reclaimed shares would have a positive social effect on active shareholders as it would increase their opportunity to harvest wreckfish and ensure that the available quota was able to be more fully utilized.

4.7.4 Administrative Effects

This action and associated alternatives would create a mechanism to reclaim and hold shares from accounts not in compliance with the regulation, as established in Action 6. This would require increased cost and burden to the agency to track accounts, create an account to hold the

reclaimed shares, and create a method to transfer shares and record the reason for the reclamation. The administrative impacts on the sub-alternatives would be similar in that the system will use the creation of automated code to track dates and redistribute shares. However, **Alternative 1 (No Action)** would have the least administrative burden on the agency followed by **Alternative 2, Alternative 3** and **Alternative 4,** and associated sub-alternatives. This burden may be eased by modifying the existing Catch Shares Online System (as used in the Gulf of Mexico ITQ programs) to accommodate this action, however as the development of the catch share system gets more complicated the cost to develop it increases. There will also be increased burden as the agency would need to create a protocol for notifying shareholders prior to reclamation that could involve using certified mail to notify the shareholder of the reclamation date. The analysis and monitoring of the program would also have increased burden as the agency would need to ensure that the online system can account for NMFS held reclaimed shares.

4.8 Action 8. Wreckfish Individual Transferable Quota Requirements to Obtain Annual Allocation from Shares

4.8.1 Biological Effects

Establishing requirements for obtaining annual allocation is an administrative action that would not directly affect the physical or biological environment. This action would not change how the fishery is prosecuted and as such would not have a direct or indirect biological effect on wreckfish, other affected species or protected species.

Alternatives*

1 (No Action). To obtain annual allocation from shares, an account must hold active wreckfish individual transferable quota shares.

2. To obtain annual allocation from shares, an account must hold a valid or renewable commercial snapper grouper unlimited permit.

3. To obtain annual allocation from shares, an account must hold active wreckfish individual transferable quota shares and be in good standing with respect to:

3a. Collection and submission of cost recovery fees.

3b. Wreckfish reporting requirements.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.8.2 Economic Effects

Alternative 1 (No Action) would maintain the requirement for fishery participants to have or acquire active wreckfish ITQ shares to obtain annual allocation from shares. If a fishery participant already possesses these shares, then there would be no additional cost, but new entrants would need to obtain shares, representing a cost to these entrants. **Alternative 2** would require a valid or renewable commercial snapper grouper unlimited permit to obtain annual allocation from shares. This would represent a cost if current quota shareholders do not have this permit and must purchase one to remain active in the wreckfish fishery. If a fishery participant already holds a valid snapper grouper unlimited permit, then there would be no economic effects on the participant. Currently, all shareholders also have a valid snapper grouper unlimited permit, thus any additional costs would only be potentially incurred by new entrants. **Alternative 3** would require participants to have or acquire active wreckfish ITQ shares to obtain annual allocation as well as be in good standing in respect to cost recovery fees (**Sub-alternative 3a**) and wreckfish ITQ reporting requirements (**Sub-alternative 3b**), which represent costs that are discussed in subsequent actions covering these topics. Thus, these sub-alternatives would not implement direct costs.

All existing participants in the wreckfish fishery would already meet the stipulations in **Alternative 1 (No Action)** and **Alternative 2**, thus there a no new economic costs or benefits to these participants. **Alternative 3** would implement additional stipulations on exist participants and new entrants, thus this alternative would have comparatively more costs.

4.8.3 Social Effects

Under **Alternative 1 (No Action)** holding active wreckfish individual transferable quota shares is the only requirement for obtaining annual allocation from shares. **Alternative 2** would require the shareholder to also meet the requirements necessary to harvest wreckfish, in this case a commercial snapper grouper permit. **Alternative 2** ensures that there is the potential for the highest social benefits to be realized through harvest of all available wreckfish allocation. If the ability to obtain and maintain shares under **Action 5** requires a commercial snapper grouper

unlimited permit, **Alternative 2** would represent no additional burden on shareholders. Alternatively, if a commercial snapper grouper unlimited permit is not required to obtain and maintain shares, **Alternative 2** would require additional time and cost to shareholders who must now obtain a commercial snapper grouper unlimited permit. **Alternative 3** would require shareholders to be in good standing with collection and submission of cost recovery fees (**Sub-alternative 3a**) and wreckfish reporting requirements (**Sub-alternative 3b**). The social effects of those specific requirements are discussed under **Action 15** and **Action 2**, respectively. Overall, requiring shareholders to be in compliance with these regulations will aid in management of the fishery ensuring social benefits are achieved in the long-term.

4.8.4 Administrative Effects

Under Action 8, the administrative impacts would be associated with the development of the online program and the cost would be associated with how complicated the program is designed. For all alternatives, the agency would need to build a one-time code to allow the electronic system to only display accounts that meet the standard for obtaining annual allocation from shares. **Alternative 2** would require code that links to the permits system and could modify some existing code used for the Gulf IFQ programs. **Alternative 3** would require substantially more complex coding and staff analysis to address the various sub-alternatives. **Alternative 3, Sub-Alternative 3a** would require code to determine if the cost recovery fees were collected or submitted. **Alternative 3, Sub-Alternative 3b** would require additional analysis to determine if all landing transactions were submitted based on information in the system about trips taken. Therefore, **Alternative 1 (No Action)** would be expected to have low administrative effects followed by **Alternative 2** and **Alternative 3** and associated sub-alternatives.

4.9 Action 9. Wreckfish Individual Transferable Quota Requirements to Obtain Annual Allocation through Transfer

Alternatives*

1 (No Action). Do not limit who can receive annual allocation through transfer in the online system.

2. Individual transferable quota annual allocation can be transferred only to individual transferable quota accounts holding shares. Eligible accounts must be held by individuals who are United States citizens or permanent resident aliens.

3. Individual transferable quota annual allocation can be transferred only to accounts with an associated valid snapper grouper unlimited permit. Eligible accounts must be associated with individuals who are United States citizens or permanent resident aliens.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.9.1 Biological Effects

Establishing requirements to obtain annual allocation through transfer is an administrative action that would not directly affect the physical or biological environment. This action would not change how the fishery is prosecuted and as such would not have a direct or indirect biological effect on wreckfish, other affected species or protected species.

4.9.2 Economic Effects

Alternative 2 would be more restrictive than **Alternative 1 (No Action)** and potentially add a cost to fishery participants if they do not already possess wreckfish shares. As such, shares would need to be purchased or annual allocation could not be transferred. The valid snapper grouper unlimited permit requirement of **Alternative 3** may add an additional cost to wreckfish fishery participants in comparison to **Alternative 1 (No Action)** and **Alternative 2** if they do not already possess such a permit. If a fishery participant already holds a valid snapper grouper unlimited permit, then there would be no difference in economic effects between the **Alternative 1 (No Action)** and **Alternative 3** provided that the recipient is also an individual who is a United States citizen or permanent resident alien. Currently, all shareholders also have a valid snapper grouper unlimited permit, thus any additional costs would only be potentially incurred by new entrants.

4.9.3 Social Effects

Alternative 1 (No Action) does not restrict who is able to receive allocation via transfer in the online system. **Alternative 2** would mirror what is currently in place under the paper-based reporting system, requiring individuals interested in receiving allocation via transfer to already hold wreckfish individual transferable quota shares, which would result in additional burden to an individual interested in participating in the fishery as they would need to both find a current shareholder willing to sell them a percentage of shares in the fishery and possibly provide compensation for receiving those shares. Additionally, **Alternative 2** would result in the benefits of allocation being realized only in communities with active wreckfish shareholders, as is currently the case under the paper-based reporting system. **Alternative 3** would not require someone receiving allocation via transfer to have shares but would require them to have a commercial snapper grouper unlimited permit, which is a requirement to harvest wreckfish (**Action 3**). This would ensure that the annual wreckfish allocation has the highest potential to be fully utilized and the highest possible social benefits from harvest realized.

4.9.4 Administrative Effects

Under Action 9, the administrative impacts would be associated with the development of the online program and the cost would be associated with how complicated the program is designed. For all alternatives, including **Alternative 1 (No Action),** the agency would need to build one-time code to allow the electronic system to only display accounts that meet the standard for obtaining annual allocation from transfers. Building the code for **Alternative 2** and **Alternative 3** would require linkages to the permits system and could modify some existing code used for the Gulf IFQ programs, which may reduce the administrative burden.

4.10 Action 10. Retaining Annual Allocation before a Commercial Annual Catch Limit Reduction

Alternatives*

1 (No Action). Distribute 100% of the wreckfish annual allocation to individual transferable quota shareholders on January 1st of each year.

2. Provide the Regional Administrator with the authority to withhold the amount of wreckfish annual allocation before distribution at the beginning of a year in which a commercial annual catch limit reduction is expected to occur. Withheld wreckfish annual allocation will be distributed to shareholders if the effective date of the final rule implementing the quota reduction has not occurred by:

2a. June 1

2b. August 1

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.10.1 Biological Effects

This action would allow the Regional Administrator (RA) to withhold a portion of the allocation if the ACL for wreckfish is expected to be reduced as a result of a revised stock assessment. This action is primarily administrative, so little or no direct or indirect effects are expected to the biological environment regardless of which alternative (**Alternative 1 (No Action)** or **Alternative 2**) or sub-alternatives (**Sub-alternative 2a** and **Sub-Alternative 2b**) is selected. Reducing the ACL for wreckfish would be a separate action and any effects to the biological environment from that action would be analyzed in the plan amendment or framework action supporting the reduction. However, under specific circumstances, **Alternative 1 (No Action)** could delay the implementation of an ACL decrease by a year. This could occur if the need for the ACL reduction were identified too late in the year for implementing a framework action to retain annual allocation on January 1. The result would be the necessary ACL decrease would be delayed until the next year. This could have negative biological effects on the species requiring an ACL decrease.

4.10.2 Economic Effects

Alternative 1 (No Action) could allow for relatively increased harvest of wreckfish to occur for a single year in comparison to **Alternative 2**. These potential additional wreckfish landings would provide net economic benefits for wreckfish fishery participants but could also lead to longer-term economic costs if overfishing were to occur. **Alternative 2** would reduce the risk of overfishing wreckfish in years that the ACL is being reduced, which could lead to long-term economic benefits. In the short-term, there would be economic costs due to the reduced quota available to the fishery and likely reduced landings of wreckfish. The likelihood of these reduced landings occurring is higher under **Sub-alternative 2b** than **Sub-alternative 2a**.

4.10.3 Social Effects

Alternative 1 (No Action) could allow for the increased harvest of wreckfish to occur for a single year when compared to **Alternative 2**. While this opportunity to continue to harvest wreckfish at the higher level would provide social benefits for wreckfish fishery participants, it could also lead to long-term loss of social benefits if overfishing was to occur. **Alternative 2** would reduce the risk of overfishing wreckfish in years that the ACL is being reduced, which would promote long-term social benefits. The likelihood of these reduced landings occurring is higher under **Sub-alternative 2b** than **Sub-alternative 2a**.

4.10.4 Administrative Effects

Under **Alternative 1 (No Action)**, if a reduction in the wreckfish ACL is anticipated due to a revised stock assessment, a framework action would need to be implemented to withhold a portion of the commercial ACL. Under **Alternative 2**, the RA would have the authority to withhold the ACL and no framework action would be needed. Therefore, should the ACL need to be withheld, **Alternative 2** would reduce the burden on the administrative environment compared to **Alternative 1 (No Action)**. However, if the expected ACL decrease did not occur, NMFS would then need to distribute the held back amount. **Sub-alternative 2b** would likely have less of an administrative burden under **Alternative 2** relative to **Sub-alternative 2a** because there would be more time to implement an ACL reduction and not incur the need to redistribute held back quota. Regardless of which alternative is selected as preferred, this action would have minimal effects on the administrative environment. NMFS will have a program and system in place to issue, transfer, and monitor shares and allocation if an electronic system is built. **Alternative 2** would not relieve the administrative burden needed to develop and implement a plan amendment or framework action to reduce the ACL. This work would be needed regardless of which alternative is selected as preferred under this action.

4.11 Action 11. Modify the commercial fishing year for wreckfish.

Alternatives*

1 (No Action). The commercial fishing year for wreckfish begins on April 15 and ends on April 14.

2. The commercial fishing year for wreckfish begins on January 1 and ends on December 31.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.11.1 Biological Effects

Regardless of the alternative selected, this action is not anticipated to have any biological effects on wreckfish. The fishing year does not directly affect landings or fishing behavior. The commercial sector is constrained by its ACL and operates under a well-regulated ITQ system. Any changes made to the ITQ system under Action 2 would not affect this action. There is not expected to be any difference in the biological effects under **Alternative 1 (No Action)** and **Preferred Alternative 2**. Neither alternative would modify the fishery in such a way that it would result in effects to wreckfish, other affected species or protected species.

4.11.2 Economic Effects

The fishing year does not directly affect landings or fishing behavior, therefore the economic effects of **Alternative 1 (No Action)** and **Preferred Alternative 2** would likely be similar. Net economic benefits are not expected to change between the two alternatives.

4.11.3 Social Effects

The fishing year does not directly affect landings or fishing behavior, therefore the social effects of **Alternative 1 (No Action)** and **Preferred Alternative 2** would likely be similar. Social effects are not expected to change between the two alternatives.

4.11.4 Administrative Effects

If **Alternative 2**, under **Action 2**, is selected as preferred, this action would be needed to align the electronic system maintenance and updates with those of other catch share programs managed by NMFS. The need for this action is purely administrative and **Preferred Alternative 2** would reduce the administrative burden compared to **Alternative 1 (No Action)** because the updates and maintenance of the ITQ program can happen at the same time as the other programs.

4.12 Action 12. Pre-landing Notification Requirement for Commercial Vessels Participating in the Wreckfish Component of the Snapper Grouper Fishery.

Alternatives*

1 (No Action). Commercial vessels participating in the wreckfish component of the snapper grouper fishery are not required to notify the National Marine Fisheries Service in advance of landing wreckfish.

2. The owner or operator of a commercial snapper grouper unlimited permitted vessel participating in the wreckfish component of the snapper grouper fishery is responsible for ensuring that the National Marine Fisheries Service is contacted at least three hours, but no more than 24 hours, in advance of landing

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.12.1 Biological Effects

Regardless of the alternative selected, this action is not anticipated to have negative biological effects on wreckfish. The commercial sector is constrained by its ACL and operates under a well-regulated ITQ system. There is not expected to be any difference in the biological effects of **Alternative 1 (No Action)** and **Alternative 2**. Neither alternative will modify the fishery in such a way that it would result in effects to wreckfish, other affected species or protected species.

4.12.2 Economic Effects

In comparison to **Alternative 1 (No Action), Alternative 2** would create a limited additional cost on wreckfish fishery participants due to the time it would take to notify NMFS in advance of landing wreckfish. This cost would likely be minimal on a per trip basis, as it would take place while underway or at port. Thus, there would be no incremental increase in time on the part of fishery participants that otherwise would not have already been spent otherwise in the course of fishing operations. In cases where vessels may arrive at their offloading site in less than 3 hours from the time that they were able to notify NMFS, there may be additional time spent waiting to offload in order to adhere to the 3-hour minimum notice requirement. In this circumstance, there would be increased costs for **Alternative 2** in comparison to **Alternative 1 (No Action)**.

4.12.3 Social Effects

Requiring the owner or operator of a commercial snapper grouper unlimited permitted vessel participating in the wreckfish component of the snapper grouper fishery to notify NMFS at least three hours in advance of landing under **Alternative 2** may result in positive or negative social effects when compared to **Alternative 1 (No Action)** depending on how individual fishing business must change their practices to account for the additional requirement. Providing advance notice of landing and relaying the expected date and time, pre-approved landing location, estimated weight of wreckfish on-board the vessel, dealer where the wreckfish are to be received, shareholder, and vessel identification will take additional time when on a fishing trip when the captain and/or crew may traditionally have been completing other tasks. Additionally, increased monitoring requirements for the wreckfish fishery have been controversial with shareholders who feel it is overly burdensome and unnecessary for effective monitoring and management of the wreckfish fishery. Thus, **Alternative 2** may result in a decrease in support for and participation in management when compared to **Alternative 1 (No Action)**.

4.12.4 Administrative Effects

The administrative effects under **Alternative 2** would be considerable when compared with **Alternative 1 (No Action)** as the agency would need to create the entire process for the submission of the pre-landing notification including submission process, communication process and data system. The submission process would likely include creation of webpages for data entry. The agency would also likely need to support a call service center to take submissions when electronic submission is not possible. The communication process would also need to be built so that information submitted is also sent to law enforcement and port agents near the landing location in advance of landing. Administrative impacts on the agency would also be in the form of outreach and education to ensure the participants understand the program changes.

.

2.13 Action 13. Modify offloading site requirements for wreckfish.

Alternatives*

1 (No Action). Wreckfish must be offloaded only at the fixed facility of a dealer with a Gulf of Mexico and South Atlantic Dealer Permit. Wreckfish may be offloaded at a location other than a fixed facility of a dealer who holds a Gulf of Mexico and South Atlantic dealer permit if the wreckfish shareholder or the vessel operator advises the NMFS Office for Law Enforcement of the location not less than 24 hours prior to offloading.

2. Individual transferable quota wreckfish must be landed at an approved landing location. Landing locations must be approved by NMFS Office for Law Enforcement prior to a vessel landing individual transferable wreckfish at these sites.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.13.1 Biological Effects

Alternative 1 (No Action) or **Alternative 2**, are not anticipated to have negative biological effects on wreckfish. The commercial sector is constrained by an ACL and operates under a well-regulated ITQ system. These alternatives would give flexibility to the fishermen, but the fishery would still be constrained by the ACL, the ITQ program and validated by dealer reports. None of the alternatives would modify the fishery in such a way that it would result in effects to wreckfish, other affected species or protected species.

4.13.2 Economic Effects

Removing offloading site requirements under **Alternative 2** and allowing landing to take place at any NMFS approved location would increase flexibility in landing sites that could result in reduced costs if a vessel ends up traveling a shorter distance, thus decreasing fuel costs. Should this occur, there would be net economic benefits from **Alternative 2** in comparison to **Alternative 1 (No Action)**.

4.13.3 Social Effects

Removing offloading site requirements under **Alternative 2** and allowing landing to take place at any NMFS approved location would increase flexibility in landing sites that could reduce the burden on vessels if they are now able to land at a more convenient location and could adjust to different locations as circumstances require. Overall, there would be social benefits from the increased flexibility under **Alternative 2** when compared to **Alternative 1 (No Action)**.

4.13.4 Administrative Effects

By increasing the available landing locations under **Alternative 2**, the administrative burden on the agency would be expected to increase. **Alternative 1 (No Action)** requires that wreckfish be offloaded at a fixed dealer facility unless law enforcement is advised (e.g. voicemail or verbal confirmation) at least 24 hours in advance. **Alternative 2** would allow other landing locations to be approved by law enforcement, providing a bit more flexibility for fishermen but increasing the potential administrative burden on law enforcement initially. Once the system is in place, the administrative burden on law enforcement is expected to be minimal. There would also be the burden on the agency to build out a list of approved landing locations to be selected and if combined with Action 12, a way to include those in the pre-landing notification.

4.14 Action 14. Modify offloading time requirements for wreckfish.

Alternatives*

1 (No Action). Wreckfish may only be offloaded between the hours of 8 a.m. and 5 p.m., local time.

2. Wreckfish may only be offloaded between the hours of 6 a.m. and 6 p.m., local time.

3. Wreckfish may only be offloaded between the hours of 5 a.m. and 8 p.m., local time.

4. Remove the requirement to offload wreckfish between the hours of 8 a.m. and 5 p.m., local time.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.14.1 Biological Effects

Currently, the wreckfish ITQ program limits offloading of wreckfish between daylight hours, 8 am – 5 pm EST and only at fixed dealer facilities. Landing at other locations may be approved if the vessel captain or shareholder notifies Law Enforcement at least 24 hours prior to offloading.

Regardless of the alternative selected, this action is not anticipated to have negative biological effects on wreckfish. The commercial sector is constrained by an ACL and operates under a well-regulated ITQ system. The offloading hours are used to ensure that law enforcement may be available to witness wreckfish being landed at a dealer facility. **Alternative 4** would be the most flexible for fishermen, by allowing them to offload their catch whenever is most convenient for them. There is not expected to be any difference in the biological effects under **Alternative 1 (No Action)**, **Alternative 2, Alternative 3 or Alternative 4**. These alternatives would give flexibility to the fishermen, but the fishery would still be constrained by the ACL, the ITQ program and validated by dealer reports. None of the alternatives would modify the fishery in such a way that it would result in effects to wreckfish, other affected species or protected species.

4.14.2 Economic Effects

Offloading time requirements implement a cost on fishery participants since they may hinder fishing activity that otherwise would have occurred should such restrictions not be in place. Thus, less restrictive time requirements offer comparative economic benefits**. Alternative 1 (No Action)** offers the fewest hours that wreckfish may be offloaded (9 hours), followed by **Alternative 2** (12 hours), **Alternative 3** (15 hours), and **Alternative 4** (24 hours). As such, **Alternative 4** offers the highest potential economic benefits to fishery participants, followed by **Alternative 3**, **Alternative 2**, and **Alternative 1 (No Action)**.

4.14.3 Social Effects

Wreckfish ITQ shareholders have expressed frustration with the current offloading time requirements under **Alternative 1 (No Action)**. Restrictive hours can prevent fishermen from offloading the day's catch and extend the amount of time they need to be at dock and away from fishing grounds. **Alternative 4** would provide fishing businesses with the most flexibility in offloading time, followed by **Alternative 3** and **Alternative 2**. Additionally, **Alternative 2**, **Alternative 3**, and **Alternative 4** would address a problem in the fisheries identified by stakeholders and may help to improve perceptions of the management process. Therefore, social effects would be expected to be highest under **Alternative 4** followed by **Alternative 3**, **Alternative 2**, and **Alternative 1 (No Action)**.

4.14.4 Administrative Effects

Alternative 1 (No Action) provides for a 9-hour window for offloads, which has proved burdensome on the fishermen if they arrive after 5:00 pm. In those situations, they would need to wait with fish onboard the vessel until the next day to begin the offload process. By increasing the time window for offloads, the administrative burden on the agency is increased. **Alternative 2** and **Alternative 3** would increase the window for offloads, providing a bit more flexibility for fishermen but increasing the potential administrative burden on law enforcement. Additionally, the increased time allotment for **Alternative 2** matches the offloading times used in the Gulf of Mexico IFQ programs and provide a consistency for law enforcement. These hours were chosen in the Gulf as they typically represent what would occur outside daylight hours across the entire year. **Alternative 3** would increase the hours and could jeopardize officer safety risk for law enforcement as it includes non-daylight hours throughout the year. **Alternative 4** would remove administrative burden from law enforcement and fishermen but may not provide enough oversight of the program. Administrative burden would increase as the window for offloads increases. **Alternative 4** would have the least administrative burden, followed by **Alternative 1 (No Action), Alternative 2** and **Alternative 3**.

4.15 Action 15. Implement a cost recovery plan and associated conditions for the wreckfish individual transferable quota program.

4.15.1 Sub-Action 15-1. Implement a cost recovery plan for the wreckfish individual transferable quota program.

Alternatives*

1 (No Action). Do not implement a cost recovery plan for the wreckfish individual transferable quota program.

2. Implement an individual transferable quota cost recovery plan. The transferable quota shareholder landing wreckfish would be responsible for collection and submission of the cost recovery fee to NMFS.

3. Implement an individual transferable quota cost recovery plan. The dealer receiving Wreckfish would be responsible for collecting the cost recovery fee from the shareholder landing the wreckfish and submitting the fee to NMFS.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.15.1.1 Biological Effects

Typically, the collection of cost recovery fees is not expected to affect the physical or biological environment, nor have any effects on the stock, associated species or protected species. There is not expected to be any difference in the biological effects under **Alternative 1 (No Action)**, **Alternative 2,** and **Alternative 3.**

4.15.1.2 Economic Effects

A cost recovery plan would implement an additional cost on wreckfish fishery participants but a benefit to fishery management agencies, in this case the National Marine Fisheries Service (NMFS), by helping to offset administrative costs. **Alternative 1 (No Action)** represents the lowest cost to fishery participants and lowest benefits to NMFS, but it is not a legally viable alternative. **Preferred Alternative 2** and **Alternative 3** represent the same costs to fishery participants and same benefits to NMFS, both of which are higher than **Alternative 1 (No Action)**. The difference between these two alternatives would be what entity bears the time burden and associated cost related to collection and submittal of the cost recovery fee. Under **Preferred Alternative 2**, the cost related to collection and submittal of the cost recovery fee would be incurred by the quota shareholder while this cost would be incurred by the dealer receiving the wreckfish under **Alternative 3**.

4.15.1.3 Social Effects

Alternative 1 (No Action) does not provide for a cost recovery program while **Preferred Alternative 2** and **Alternative 3** establish a program for the wreckfish ITQ fishery. However, **Alternative 1 (No Action)** is not a legally viable alternative. **Preferred Alternative 2** and **Alternative 3** are similar in all respects, except with respect to the responsibility for fee collection and submission. This responsibility resides on the IFQ shareholder under **Preferred Alternative 2** and on the IFQ dealer/processor under **Alternative 3**. Negative social effects of the cost recovery fee would be associated with the cost of the fee itself as well as the time and materials required for completing the paperwork and paying the fee. Establishing a cost recovery program for wreckfish would have some positive social effects associated with funding for management, data collection, and enforcement which helps ensure the long-term sustainability of the fishery.

4.15.1.4 Administrative Effects

Cost recovery was not included in the Wreckfish ITQ program when it was implemented in 1992 and cost recovery is currently not in place. Cost recovery plans for ITQ programs are a requirement of the Magnuson-Stevens Act and as such **Alternative 1 (No Action**) is not a viable alternative. **Preferred Alternative 2** would increase the administrative burden on shareholders and **Alternative 3** would increase the administrative burden on wreckfish dealers. Both **Preferred Alternative 2** and **Alternative 3** would result in an administrative burden related to tracking and collecting cost recovery fees. However, with the electronic ITQ program as proposed in **Action 2**, it is expected that the electronic system will be able to track and collect these payments in a way that is less burdensome to permit holders, dealers and the agency compared to a paper-based program.

4.15.2 Sub-Action 15-2. Collection of wreckfish individual transferable quota program cost recovery fees.

4.15.2.1 Biological Effects

The timeliness of the collection of cost recovery fees is not expected to affect the physical or biological environment, nor have any effects on the stock, associated species or protected species. There is not expected to be any difference in the biological effects under **Alternative 1 (No Action)**, **Alternative 2, Alternative 3** and **Alternative 4.**

Alternatives*

1 (No Action). Do not implement a cost recovery plan for the wreckfish individual transferable quota program.

2. Fees will be collected at the time of landing.

3. Fees will be collected upon the sale of such fish during a fishing season.

4. Fees will be collected in the last quarter of the calendar year in which the fish is harvested.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.15.2.2 Economic Effects

The total fees would be the same for **Alternatives 2**, **3**, and **4 (Preferred)**. **Preferred Alternative 4** may require less effort to collect fees for either shareholders or dealers since it would only be required once per quarter, thus there may be slightly lower costs associated with this alternative in relation to **Alternatives 2** and **3**.

4.15.2.3 Social Effects

Preferred Alternative 4 may require less effort to collect fees since it would only be required once per year, thus there may be a slight time burden associated with this alterative in relation to **Alternatives 2** and **3**. **Alternative 1 (No Action)** would all NMFS to specify when cost recovery fees would by collected and thus is not directly comparable to the other alternatives without additional information,

4.15.2.4 Administrative Effects

This action pertains to the collection of cost recovery fees between the permit holder and the dealer and as such would not lead to any administrative impacts on the agency. There will be no difference in the administrative impacts between **Alternative 1 (No Action), Alternative 2, Alternative 3 and Alternative 4.**

4.15.3 Sub-Action 15-3. Frequency of wreckfish individual transferable quota program cost recovery fee submission.

4.15.3.1 Biological Effects

The frequency of the collection of cost recovery fees is not expected to affect the physical or biological environment, nor have any effects on the stock, associated species or protected species. There is not expected to be any difference in the biological effects under **Alternative 1 (No Action)**, **Alternative 2, Alternative 3, Alternative 4,** and **Alternative 5.**

Alternatives*

1 (No Action). Do not implement a cost recovery plan for the wreckfish individual transferable quota program.

2. Cost recovery fee will be submitted once per year.

3. Cost recovery fee will be submitted twice per year.

4. Cost recovery fee will be submitted four times per year.

5. Cost recovery fee will be submitted twelve times per year.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.15.3.2 Economic Effects

Alternative 1 (No Action), represents the lowest costs to fishery participants, as it is the least stringent, but is also not a legally viable alternative. The total fees would be the same across **Alternatives 2 (Preferred)**, **3**, **4** and **5**. Less frequency between when the fees must be submitted may lead to less reporting-related costs from those submitting the fees to the agency and thus comparatively higher economic benefits. Under this notion, **Preferred Alternative 2** may require less reporting burden on the part of the entity submitting the fees to NMFS, since it would only be required once per year, this would be followed by slightly higher reporting burden related costs associated with **Alternative 3** (submittal twice per year), **Alternative 4** (submittal four times per year), and **Alternative 5** (submittal 12 times per year).

4.15.3.3 Social Effects

A cost recovery plan under **Preferred Alternative 2**, **Alternative 3**, **Alternative 4** and **Alternative 5** would result in additional burden on wreckfish ITQ shareholders when compared to **Alternative 1 (No Action)**. Negative social effects of the cost recovery fee would be associated with the cost of the fee itself as well as the time and materials required for completing the online forms and submitting the fee. **Alternative 5** would require the most effort to collect fees since it would be required twelve times per year, followed by **Alternatives 4**, **Alternative 2** and **Preferred Alternative 2**.

4.15.3.4 Administrative Effects

Cost recovery plans for ITQ programs are a requirement of the Magnuson-Stevens Act and, as such, **Alternative 1 (No Action**) is not a viable alternative. With the wreckfish electronic ITQ program as proposed in **Action 2**, it is expected that the electronic system will be able to track and collect these fees in a way that is less burdensome to permit holders, dealers and the agency compared to a paper-based program. The administrative burden on the agency is expected to be less with fewer transactions, as in **Alternative 2**. However, increase in administrative burden may occur under **Alternative 2** as the agency may be faced with those that choose not to pay

their cost recovery fees. However, Action 6 (divestment of shares due to non-compliance with the regulations of the program) is likely to deter this behavior.

4.15.2 Sub-Action 15-4. Determination of wreckfish individual transferable quota program cost recovery fees.

4.15.4.1 Biological Effects

The determination of how cost recovery fees are calculated is not expected to affect the physical or biological environment, nor have any effects on the stock, associated species or protected species. There is not expected to be any difference in the biological effects under **Alternative 1 (No Action)**, **Alternative 2,** and **Alternative 3.**

4.15.4.2 Economic Effects

Alternative 1 (No Action), represents the lowest costs to fishery participants, as it is the least stringent, but is also not a legally viable alternative. The costs for fishery participants related to **Preferred Alternative 2** and **Alternative 3** would be situational and variable, therefore a comparison of economic benefits is not possible at this time. Whichever alternative that resulted in a lower ex-vessel value during a given time would result in the lowest cost to fishery participants.

Alternatives*

1 (No Action). Do not implement a cost recovery plan for the wreckfish individual transferable quota program.

2. The cost recovery fee will be based on actual* ex-vessel value of the wreckfish landings.

3. The cost recovery fee will be based on standard** ex-vessel value of the wreckfish landings as calculated by NMFS.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.15.4.3 Social Effects

The costs for fishery participants related to **Alternative 2** and **Preferred Alternative 3** would be situational and variable, therefore a comparison of social benefits is not possible at this time. The alternative that results in a lower ex-vessel value during a given time would provide the highest social benefits to fishery participants. However, there may be distributional effects between fishermen how get above average ex-vessel prices and those that get below-average ex-vessel prices. How those social effects are experiences by communities will depend on where fishermen are receiving those ex-vessel prices and the concentration of shares and thus landings within those communities.

4.15.4.4 Administrative Effects

Alternative 2, which would calculate a cost recovery fee based on ex-vessel value of the wreckfish landings is less burdensome than calculating the cost recovery fee based on standard ex-vessel value as in **Alternative 3**. Standard ex-vessel is based on calculating an average for a year, publishing these values in the Federal Register and then applying the standard to the pounds harvested. **Preferred Alternative 3** will have a much greater administrative burden on the agency than **Alternative 2**.

Chapter 5. Council's Conclusions for the Preferred Alternatives

To be completed before the June 2024 Council meeting.

Chapter 6. Cumulative Effects

To be completed before the March 2024 Council meeting.

Chapter 7. List of Interdisciplinary Plan Team Members

Name	Agency/Division	Title
Christina Wiegand	SAFMC	Social Scientist/IPT Lead
John Hadley	SAFMC	Economist
Myra Brouwer	SAFMC	Deputy Director for Management
Nick Smillie	SAFMC	Digital Communications
Roger Pugliese	SAFMC	Senior Fishery Biologist
Judd Curtis	SAFMC	Quantitative Scientist
Karla Gore	SERO/SF	Fishery Biologist/IPT Lead
Rick DeVictor	SERO/SF	South Atlantic Branch Chief
Britni LaVine	SERO/LAPP	Fishery Biologist
Alisha DiLeone	SERO/SF	Data Analyst
Al Taylor	SERO/LAPP	Fishery Biologist
Adam Bailey	SERO/SF	Technical Writer and Editor
Patrick O'Pay	SERO/PR	Biologist
Nikhil Mehta	SERO/SF	Fishery Biologist/NEPA Coordinator
Ed Glazier	SERO/SF	Social Scientist
Mike Travis	SERO/SF	Social Science Branch Leader
Adam Stemle	SERO/SF	Economist
David Dale	SERO/Habitat	Regional EFH Coordinator
Jessica Stephen	SERO/LAPP	Data Management Branch Leader
Kevin McIntosh	SERO/CS	Constituency Services Branch Chief
Scott Crosson	SEFSC	Economist
Alan Lowther	SEFSC	Survey Design, Data Management and Dissemination Branch Chief
Adam Brame	SERO/PR	Sawfish Recovery Coordinator
Monica Smit-Brunello	NOAA GC	General Counsel
Manny Antonaras	SERO/OLE	Assistant Director
Matthew Walia	SERO/OLE	Compliance Liaison Analyst

NOAA=National Oceanic and Atmospheric Administration, NMFS = National Marine Fisheries Service, SERO = Southeast Regional Office, SF = Sustainable Fisheries Division, PR = Protected Resources Division, HC = Habitat Conservation Division, SEFSC=Southeast Fisheries Science Center, GC = General Counsel

Chapter 8. Agencies and Persons Consulted

Responsible Agencies
South Atlantic Fishery Management Council (Administrative Lead)
4055 Faber Place Drive, Suite 201
N. Charleston, South Carolina 29405
843-571-4366/ 866-SAFMC-10 (TEL)
843-769-4520 (FAX)
www.safmc.net

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
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
National Marine Fisheries Service
- Washington Office
- Office of Ecology and Conservation
- Southeast Regional Office
- Southeast Fisheries Science Center

Chapter 9. References

Census Reporter. 2023. Crescent, Georgia CCD, McIntosh County, Georgia. https://censusreporter.org/profiles/06000US1319193078-townsend-ccd-mcintosh-county-ga/

Census Reporter. 2023. United States. https://censusreporter.org/profiles/01000US-united-states/

Census Reporter. 2023. Wadmalaw Island CCD, Charleston County, South Carolina. https://censusreporter.org/profiles/06000US4501993549-wadmalaw-island-ccd-charleston-county-sc/

Gauvin, J. R., J. M. Ward, and E. E. Burgess. 1994. Description and evaluation of the wreckfish (*Polyprion americanus*) fishery under individual transferable quotas. Marine Resource Economics. Volume 9, Number 2, pp. 99–118.

Glazier, E., E. Thunberg, M. McPherson, M. Jepson, and L. Colburn. 2022. Marine Fisheries and the COVID 19 pandemic: calendar year 2020 survey data and analysis. NOAA Tech. Memo. NMFS-F/SPO-233, 47 p. https://spo.nmfs.noaa.gov/sites/default/files/TMSPO233.pdf

MacLauchlin, K. (2018). Socio-Economic Profile of the Snapper Grouper Commercial Fishery in the South Atlantic Region. Report provided to the South Atlantic Fishery Management Council. 104 pp + appendices.

NMFS. 2021. Fisheries Economics of the United States, 2017. U.S. Dept. of Commerce, NOAA Tech. Memo. NMFS-F/SPO-219, 246 p.

NOAA Fisheries. 2023. Wreckfish. Species Directory. https://www.fisheries.noaa.gov/species/wreckfish#:~:text=Wreckfish%20live%20in%20water%20ranging,found%20near%20caves%20and%20overhangs.

Overstreet, E. and C. Liese. 2018. Economics of the Gulf of Mexico Reef Fish Fishery -2016. NOAA Technical Memorandum NMFS-SEFSC-725. 116 p. doi: 10.25923/0xjp-2p24.

SAFMC. 2019b. Vision Blueprint Commercial Regulatory Amendment 27 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region. South Atlantic Fisheries Management Council, Charleston SC, 211 pp. https://safmc.net/documents/2022/05/snapper-grouper-regulatory-amendment-27.pdf/

SAFMC. 2018. Abbreviated Framework Amendment 1 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. 2019. Abbreviated Framework Amendment 2 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. 1991. Amendment 5 (Wreckfish), Regulatory Impact Review, Initial Regulatory Flexibility Determination, and Environmental Assessment for the Fishery management Plan for the Snapper-Grouper Fishery of the South Atlantic Region. September. Charleston. https://safmc.net/documents/snapper-grouper-amendment-5/

SAFMC. 2011. Amendment 20A to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region with Environmental Assessment, Regulatory Flexibility Act Analysis, Regulatory Impact Review, and Fishery Impact Statement. December. A publication of the South Atlantic Fishery Management Council pursuant to NOAA Award No. NA05NMF4410004. Charleston. https://safmc.net/documents/snapper-grouper-amendment-20a/

SAFMC. 2019c. Amendment 42 to the FMP 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. 148 pp.

SAFMC. 2020. Abbreviated Framework Amendment 3 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. 2020. Amendment 28 to the FMP 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. 2020. Amendment 30 to the FMP 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. 2019. Review of the Wreckfish Individual Transferable Quota Program of the South Atlantic Fishery Management Council. A publication of the South Atlantic Fishery Management Council pursuant to NOAA Award Number FNA10NMF4410012. Charleston. https://safmc.net/documents/2022/12/finalwreckfishitqreview.pdf/

SAFMC 2023. Grouper, Wreckfish. Regulations. South Atlantic Fishery Management Council. Charleston. https://safmc.net/species/grouper-wreckfish/

Sedberry, G. R., C. A. P. Andrade, J. L. Carlin, R. W. Chapman, B. E. Luckhurst, C. S. Manooch III, G. M. B. Thomsen, and G. F. Ulrich. 1999. Wreckfish *polyprion americanus* in the North Atlantic: fisheries, biology, and management of a widely distributed and long lived fish. American Fisheries Society Symposium. Volume 23, pp. 27–50.

Yandle, T., and S. Crosson 2015. Whatever happened to the wreckfish fishery? An evaluation of the oldest finfish ITQ Program in the United States. Marine Resource Economics. Volume 30, Number 2. https://www.fisheries.noaa.gov/inport/item/46563

Appendix A. Other Applicable Laws

1.1 Administrative Procedure Act (APA)

All federal rulemaking is governed under the provisions of the APA (5 U.S.C. Subchapter II), which establishes a "notice and comment" procedure to enable public participation in the rulemaking process. Among other things under the APA, the National Marine Fisheries Service (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. Amendment 50 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (Amendment 50) complies with the provisions of the APA through the South Atlantic Fishery Management Council's (Council) extensive use of public meetings, requests for comments and consideration of comments. The proposed rule associated with this plan amendment will have a request for public comments, which complies with the APA, and upon publication of the final rule, unless the rule falls within an APA exception, there will be a 30-day wait period before the regulations are effective.

1.2 Information Quality Act (IQA)

The IQA (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 IQA. Amendment 50 uses the best available information and made a broad presentation thereof. The information contained in this document was developed using best available scientific information. Therefore, this document is in compliance with the IQA.

1.3 Coastal Zone Management Act (CZMA)

Section 307(c)(1) of the federal 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 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. The Council believes the actions in this plan amendment are consistent to the maximum extent practicable with the Coastal Zone Management Plans of Florida, Georgia, South Carolina, and North Carolina. Pursuant to Section 307 of the CZMA, this determination will be submitted to the responsible state agencies who administer the approved Coastal Zone Management Programs in the States of Florida, South Carolina, Georgia, and North Carolina.

1.4 Executive Order 12612: Federalism

Executive Order (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 document and associated regulations. Therefore, preparation of a Federalism assessment under E.O. 12612 is not necessary.

1.5 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. 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 National Recreational Fisheries Coordination 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 NMFS and the U.S. Fish and Wildlife Service to develop a joint agency policy for administering the ESA.

The alternatives considered in this document are consistent with the directives of E.O. 12962.

1.6 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 document are consistent with the directives of E.O. 13089.

1.7 Executive Order 13158: Marine Protected Areas (MPAs)

E.O. 13158 was signed on May 26, 2000, to strengthen the protection of U.S. ocean and coastal resources through the use of 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 document are consistent with the directives of E.O. 13158.

1.8 National Marine Sanctuaries Act (NMSA)

Under the NMSA (also known as Title III of the Marine Protection, Research and Sanctuaries Act of 1972), as amended, the U.S. Secretary of Commerce is authorized to designate National Marine Sanctuaries to protect distinctive natural and cultural resources whose protection and beneficial use requires comprehensive planning and management. The National Marine Sanctuary Program is administered by the Sanctuaries and Reserves Division of NOAA. The NMSA provides authority for comprehensive and coordinated conservation and management of these marine areas. The National Marine Sanctuary Program currently comprises 13 sanctuaries around the country, including sites in American Samoa and Hawaii. These sites include significant coral reef and kelp forest habitats, and breeding and feeding grounds of whales, sea lions, sharks, and sea turtles. The three sanctuaries in the South Atlantic exclusive economic zone are the USS Monitor, Gray's Reef, and Florida Keys National Marine Sanctuaries.

The alternatives considered in this document are not expected to have any adverse impacts on the resources managed by the National Marine Sanctuaries.

1.9 Paperwork Reduction Act (PRA)

The purpose of the 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 Management and Budget (OMB). This authority encompasses establishment of guidelines and policies, approval of information collection requests, and reduction of paperwork burdens and duplications. The PRA requires NMFS to obtain approval from the OMB before requesting most types of fishery information from the public. Actions in this document are not expected to affect PRA.

1.10 Small Business Act (SBA)

Enacted in 1953, the SBA requires that agencies assist and protect small-business interests to the extent possible to preserve free competitive enterprise. The objectives of the SBA 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, NMFS, in implementing regulations, must make an assessment of how those regulations will affect small businesses.

1.11 Public Law 99-659: Vessel Safety

Public Law 99-659 amended the Magnuson-Stevens Fishery Conservation and Management Act to require that an 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 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.

Appendix B. Regulatory Impact Review

To be completed before the June 2024 Council meeting.

Appendix C. Initial Regulatory Flexibility Analysis

To be completed before the June 2024 Council meeting.

Appendix D. Essential Fish Habitat and Ecosystem Based Fishery Management

I. EFH and EFH-HAPC Designations and Cooperative Habitat Policy Development and Protection

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) requires federal fishery management Councils and the National Marine Fisheries Service (NMFS) to designate essential fish habitat (EFH) for species managed under federal fishery management plans (FMP). Federal regulations that implement the EFH program encourage fishery management Councils and NMFS also to designate subsets of EFH to highlight priority areas within EFH for conservation and management. These subsets of EFH are called EFH-Habitat Areas of Particular Concern (EFH-HAPCs or HAPCs) and are designated based on ecological importance, susceptibility to human-induced environmental degradation, susceptibility to stress from development, or rarity of the habitat type. Information supporting EFH and EFH-HAPC designations was updated (pursuant to the EFH Final Rule) in Fishery Ecosystem Plan (FEP) II.

a. South Atlantic Council EFH User Guide

The EFH Users Guide developed during the FEP II development process is available through the FEP II Dashboard and provides a comprehensive list of the designations of EFH and EFH-HAPCs for all species managed by the South Atlantic Fishery Management Council (Council) and the clarifications identified during FEP II development. As noted above, additional detailed information supporting the EFH designations appears in FEP, FEP II, and in individual FMPs, and general information on the EFH provisions of the Magnuson-Stevens Act and its implementing regulations (50 CFR 900 Subparts J and K). These sources should be reviewed for information on the components of EFH assessments, steps to EFH consultations, and other aspects of EFH program operation.

b. South Atlantic Council EFH Policy and EFH Policy Statements *Policy for Protection and Restoration of EFH South Atlantic Council 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 Council 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 Council 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 Council 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.

c. South Atlantic Council EFH Policy Statements *Considerations to Reduce or Eliminate the Impacts of Non-Fishing Activities on EFH*

In addition to implementing regulations to protect habitat from degradation due to fishing activities, the Council in cooperation with NMFS, actively comments on non-fishing projects or policies that may impact fish habitat. The Council established a Habitat Protection and Ecosystem Based Management Advisory Panel (AP) and adopted a comment and policy development process. Members of the AP serve as the Council's habitat contacts and professionals in the field and have guided the Council's development of the following Policy Statements:

- EFH Policy Statement on South Atlantic Climate Variability and Fisheries (December 2016)
- EFH Policy Statement on South Atlantic Food Webs and Connectivity (December 2016)
- Protection and Restoration of EFH from Marine Aquaculture (June 2014)
- Protection and Enhancement of Marine Submerged Aquatic Vegetation (June 2014)
- Protection and Restoration of EFH from Beach Dredging and Filling, Beach Re-nourishment and Large Scale Coastal Engineering (March 2015)
- Protection and Restoration of EFH from Energy Exploration, Development, Transportation and Hydropower Re-Licensing (December 2015)
- Protection and Restoration of EFH from Alterations to Riverine, Estuarine and Nearshore Flows (June 2014)
- Policies for the Protection of South Atlantic Marine & Estuarine Ecosystems from Non-Native and Invasive Species (June 2014)
- Policy Considerations for Development of Artificial Reefs in the South Atlantic Region and Protection of Essential Fish Habitat (September 2017)

II. Habitat Conservation and Fishery Ecosystem Plans

The Council, views habitat conservation as the foundation in the move to Ecosystem Based Fishery Management (EBFM) in the region. The Council has been proactive in advancing habitat conservation through extensive gear restrictions in all Council FMPs and by directly managing habitat and fisheries affecting those habitats through two FMPs, the FMP for Coral, Coral Reefs and Live/Hard Bottom Habitat of the South Atlantic Region (Coral FMP) and the FMP for the Sargassum Fishery of the South Atlantic Region. The FMP for the Dolphin and Wahoo Fishery in the Atlantic represents a proactive FMP which established fishery measures and identified EFH in advance of overfishing or habitat impacts from the fisheries.

Building on the long-term conservation approach, the Council facilitated the evolution of the Habitat Plan into the first FEP to provide a clear description and understanding of the fundamental physical, biological, and human/institutional context of ecosystems within which fisheries are managed and identify information needed and how that information should be used

in the context of FMPs. Developing a South Atlantic FEP required a greater understanding of the South Atlantic ecosystem, including both the complex relationships among humans, marine life, the environment and essential fish habitat and a more comprehensive understanding of the biological, social, and economic impacts of management necessary to initiate the transition from single species management to EBFM in the region. To support the move towards EBFM, the South Atlantic Council adopted broad goals: (1) maintaining or improving ecosystem structure and function; (2) maintaining or improving economic, social, and cultural benefits from resources; and (3) maintaining or improving biological, economic, and cultural diversity.

III. Ecosystem Approach to Conservation and Management of Deep-water Ecosystems

Through Comprehensive Ecosystem-Based Amendment 1, Comprehensive Ecosystem-Based Amendment 2, and Coral Amendment 8, the South Atlantic Council established and expanded deep-water coral HAPCs (CHAPCs) and co-designated them as EFH-HAPCs to protect the largest continuous distribution (>23,000 square miles) of pristine deep-water coral ecosystems in the world from fishing and non-fishing activities.

IV. FEP II Development

The Council developed FEP II in cooperation with NMFS, as a mechanism to incorporate ecosystem principles, goals, and policies into the fishery management process, including consideration of potential indirect effects of fisheries on food web linkages when developing harvest strategies and management plans. South Atlantic Council policies developed through the process support data collection, model and supporting tool development, and implementation of FEP II. FEP II and the FEP II Implementation Plan provide a system to incorporate ecosystem considerations into the management process.

FEP II was developed employing writing and review teams established from the Council's Habitat Protection and Ecosystem Based Management AP, and experts from state, federal, non-governmental organizations (NGOs), academia and other regional organizations and associations. Unlike the original Plan, FEP II is a living continually developing online information system presenting core sections and sections with links to documents or other online systems with detailed updated information on species, habitat, fisheries and research. A core part of the FEP II development process involved engaging the Council's Habitat Protection and Ecosystem Based Management AP and regional experts in developing new sections and ecosystem-specific policy statements to address South Atlantic food webs and connectivity and South Atlantic climate variability and fisheries. In addition, standing essential fish habitat policy statements were updated and a new artificial reef habitat policy statement was approved. In combination, these statements advance habitat conservation and the move to EBFM in the region. They also serve as the basis for further policy development, consideration in habitat and fish stock assessments and future management of fisheries and habitat. They also support a more comprehensive view of conservation and management in the South Atlantic and identify long-term information needs, available models, tools, and capabilities that will advance EBFM in the region.

a. FEP II Dashboard (In transition to new Habitat and Ecosystem Page)

The FEP II Dashboard and associated online tools provided a clear description of the fundamental physical, biological, human, and institutional context of South Atlantic ecosystems within which fisheries are managed. The Council's new website (under development) will include a new Habitat and Ecosystem page where the FEP II Dashboard layout shown below will be refined and integrated.

- Introduction
- South Atlantic Ecosystem
- South Atlantic Habitats
- Managed Species
- Social and Economic
- Essential Fish Habitat
- SAFMC Managed Areas
- Research & Monitoring
- SAFMC Tools

V. NOAA EBFM Activities Supporting FEP II

a. NOAA EBFM Policy and Road Map

To support the move to EBFM, NMFS developed an agency-wide EBFM Policy and Road Map available through Ecosystem page (under revision) of the FEP II Dashboard that outlines a set of principles to guide actions and decisions over the long-term to: implement ecosystem-level planning; advance our understanding of ecosystem processes; prioritize vulnerabilities and risks to ecosystems and their components; explore and address trade-offs within an ecosystem; incorporate ecosystem considerations into management advice; and maintain resilient ecosystems.

b. FEP II Implementation Plan Structure and Framework

The Implementation Plan is structured to translate approved policy statements of the Council into actionable items. The plan encompasses chapters beginning with an introduction to the policy statement, a link to the complete policy statement, and a table which translates policies and policy components into potential action items. The actions within the plan are recommendations for activities that could support the Council's FEP II policies and objectives.

c. FEP II Two Year Roadmap

The FEP II Two Year Roadmap draws from the Implementation Plan and presents three to five priority actions for each of the nine approved policy statements of the Council. The Roadmap provides "Potential Partners" and other potential regional collaborators, a focused list of priority actions they could cooperate with the Council on to advance policies supporting the move to EBFM in the South Atlantic region.

d. Monitoring/Revisions to FEP II Implementation Plan

FEP II and this supporting Implementation Plan are considered active and living documents. The Implementation Plan will be reviewed and updated periodically. The South Atlantic Council's Habitat Protection and Ecosystem Based Management Committee will review, revise and refine those recommendations for South Atlantic Council consideration and approval for inclusion into the implementation plan.

VI. Regional Habitat and Ecosystem Partners

The Council, with the Habitat Protection and Ecosystem Based Management AP as the foundation, collaborates with regional partners to create a comprehensive habitat and ecosystem network in the region to enhance habitat conservation and EBFM.
Detailed information and links to partners are highlighted online:
https://ocean.floridamarine.org/safmc_dashboard/partners.html.

VII. Regional Ecosystem Modeling in the South Atlantic

a. South Atlantic Ecopath with Ecosim Model

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

The current South Atlantic Ecopath with Ecosim (EwE) model provides a more complete view of the system and supports potential future evaluations that may be possible with the model. With the model complete and tuned to the available data it can be used to address broad strategic issues and explore "what if" scenarios that could then be used to address tactical decision-making questions such as provide ecosystem context for single species management, address species assemblage questions, and address spatial questions using Ecospace.

A modeling team comprised of FWRI staff, Council staff and other technical experts as needed, will coordinate with members of the original Ecosystem Modeling Workgroup to maintain and further refine the South Atlantic model.

VIII. Tools supporting Habitat Conservation and EBFM in the South Atlantic Region

The South Atlantic Council developed a Habitat Conservation and Ecosystem Management Section which provided access to the FEP II Digital Dashboard and associated tools which is under development with the new website. Florida's FWRI maintains and distributes GIS data, imagery, and documents relevant to habitat conservation and ecosystem-based fishery management in their jurisdiction. Web Services and spatial representations of EFH and other habitat related layers are accessible through the Council's SAFMC Atlas, a platform for searching and visualizing GIS data relevant to the Council's mission and download of GIS layers and information on regional partners is available through the SAFMC Digital Dashboard. The online systems provide access to the following Services:

i. South Atlantic Fisheries Webservice: Provides access to species distribution and spatial presentation of regional fishery independent data from the Southeast Area Monitoring and Assessment Program (South Atlantic) SEAMAP-SA, the Marine Resources Monitoring, Assessment, and Prediction program (MARMAP), and NOAA Southeast Fishery-Independent Survey (SEFIS).
ii. South Atlantic EFH Webservice: Provides access to spatial representation of EFH and EFH-HAPCs for South Atlantic Council-managed species and Highly Migratory Species.
iii. South Atlantic Managed Areas Service: Provides access to spatial presentations of South Atlantic Council and other managed areas in the region.
iv. South Atlantic Artificial Reefs Web Application: Provides a regional view of artificial reefs locations, contents and imagery associated with programs in the southeastern U.S. overseen by individual states (Florida, Georgia, South Carolina, North Carolina).
v. South Atlantic ACCSP Web Map and Application: The web map displays Atlantic Coastal Cooperative Statistics Program (ACCSP) Statistical Areas representing catch and values of Council-managed species across time with the application displaying charts of landings and values for ACCSP Statistical Areas.

IX. Ecosystem-Based Action, Future Challenges and Needs

One of the greatest challenges to enhance habitat conservation and EBFM in the region is funding high priority research, including 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 in place-based management measures. Additional resources need to be dedicated to expanding 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. The FEP II Implementation Plan includes Appendix A to highlight research and data needs excerpted from the SEAMAP 5 Year Plan because they represent short and long-term research and data needs that support EBFM and habitat conservation in the South Atlantic Region.

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. NOAA should support and build on the regional coordination efforts of the South Atlantic Council as it transitions to a broader management approach. Resources need to be provided to collect information necessary to update information supporting FEP II, which support refinement of EFH designations and spatial representations and future EBFM actions. These are the highest priority needs to support habitat conservation and EBFM, the completion of mapping of near-shore, mid-shelf, shelf edge, and deep-water habitats in the South Atlantic region and refinement in the characterization of species use of habitats.

b. *Monitoring/Revisions to FEP II Implementation Plan*

FEP II and this supporting Implementation Plan are considered active and living documents. The Implementation Plan will be reviewed and updated periodically. During their spring meeting in 2021 and every three years following, the Habitat Protection and Ecosystem Based Management AP will engage regional experts as needed, to determine whether additional actions addressing council policies should be added to the implementation plan. The South Atlantic Council's Habitat Protection and Ecosystem Based Management Committee will review, revise and refine those recommendations for South Atlantic Council consideration and approval for inclusion into the implementation plan.

II. Regional Habitat and Ecosystem Partners

The South Atlantic Council, with the Habitat Protection and Ecosystem Based Management AP as the foundation, collaborates with regional partners to create a comprehensive habitat and ecosystem network in the region to enhance habitat conservation and EBFM.
Detailed information and links to partners are highlighted online:
https://ocean.floridamarine.org/safmc_dashboard/partners.html.

III. Regional Ecosystem Modeling in the South Atlantic

a. *South Atlantic Ecopath with Ecosim Model*

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

The current South Atlantic EwE model provides a more complete view of the system and supports potential future evaluations that may be possible with the model. With the model complete and tuned to the available data it can be used to address broad strategic issues and explore "what if" scenarios that could then be used to address tactical decision-making questions such as provide ecosystem context for single species management, address species assemblage questions, and address spatial questions using Ecospace.

A modeling team comprised of FWRI staff, South Atlantic Council staff and other technical experts as needed, will coordinate with members of the original Ecosystem Modeling Workgroup to maintain and further refine the South Atlantic Model.

IV. Tools supporting Habitat Conservation and EBFM in the South Atlantic Region

The South Atlantic Council developed a Habitat Conservation and Ecosystem Management Section which provided access to the FEP II Digital Dashboard and associated tools which is under development with the new website. Florida's FWRI maintains and distributes GIS data, imagery, and documents relevant to habitat conservation and ecosystem-based fishery management in their jurisdiction. Web Services and spatial representations of EFH and other habitat related layers are accessible through the Council's SAFMC Atlas, a platform for searching and visualizing GIS data relevant to the Council's mission and download of GIS layers and information on regional partners is available through the SAFMC Digital Dashboard. The online systems provide access to the following Services:

i. South Atlantic Fisheries Webservice: Provides access to species distribution and spatial presentation of regional fishery independent data from the Southeast Area Monitoring and Assessment Program (South Atlantic) SEAMAP-SA, the Marine Resources Monitoring, Assessment, and Prediction program (MARMAP), and NOAA Southeast Fishery-Independent Survey (SEFIS).
ii. South Atlantic EFH Webservice: Provides access to spatial representation of EFH and EFH-HAPCs for South Atlantic Council-managed species and Highly Migratory Species.
iii. South Atlantic Managed Areas Service: Provides access to spatial presentations of South Atlantic Council and other managed areas in the region.
iv. South Atlantic Artificial Reefs Web Application: Provides a regional view of artificial reefs locations, contents and imagery associated with programs in the southeastern U.S. overseen by individual states (Florida, Georgia, South Carolina, North Carolina).
v. South Atlantic ACCSP Web Map and Application: The web map displays Atlantic Coastal Cooperative Statistics Program (ACCSP) Statistical Areas representing catch and values of Council-managed species across time with the application displaying charts of landings and values for ACCSP Statistical Areas.

V. Ecosystem-Based Action, Future Challenges and Needs

One of the greatest challenges to enhance habitat conservation and EBFM in the region is funding high priority research, including 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 South Atlantic Council use in place-based management measures. Additional resources need to be dedicated to expanding 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. The FEP II Implementation Plan includes Appendix A to highlight research and data needs excerpted from the SEAMAP 5 Year Plan because they represent short

and long-term research and data needs that support EBFM and habitat conservation in the South Atlantic Region.

Development of ecosystem information systems to support South Atlantic 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 South Atlantic Council needs. NOAA should support and build on the regional coordination efforts of the South Atlantic Council as it transitions to a broader management approach. Resources need to be provided to collect information necessary to update information supporting FEP II, which support refinement of EFH designations and spatial representations and future EBFM actions. These are the highest priority needs to support habitat conservation and EBFM, the completion of mapping of near-shore, mid-shelf, shelf edge, and deep-water habitats in the South Atlantic region and refinement in the characterization of species use of habitats.

Appendix E. Actions and Alternatives Removed from Consideration

Action 5. Require all commercial vessels with a South Atlantic Unlimited Snapper Grouper Permit participating in the wreckfish portion of the snapper grouper fishery to be equipped with vessel monitoring systems.

Alternative 1 (No Action). Commercial vessels with a South Atlantic Unlimited Snapper-Grouper Permit are not required to be equipped with vessel monitoring systems when participating in the wreckfish portion of the snapper grouper fishery.

Alternative 2. Require all commercial vessels with a South Atlantic Unlimited Snapper Grouper Permit participating in the wreckfish portion of the snapper grouper fishery to be equipped with vessel monitoring systems.

Discussion: In March 2023, the South Atlantic Fishery Management Council (Council) removed consideration of a vessel monitoring system requirement for the wreckfish portion of the commercial snapper grouper fishery. The Council felt that, given the relatively small size of the wreckfish individual transferable quota (ITQ) fishery, the requirements currently in place provide an effective system for enforcement, monitoring, and management of the ITQ program.

Appendix F. Fishery Impact Statement

To be completed before the June 2024 Council meeting.

Appendix G. Allocation Review Trigger Policy

In a letter to the NOAA Assistant Administrator dated July 16, 2019, the South Atlantic Fishery Management Council (Council) responded to NOAA's Fisheries Allocation Review Policy (NMFS Policy Directive 01-119) and the associated Procedural Directive on allocation review triggers (NMFS Procedural Directive 01-119-01). The Policy established the responsibility for the Regional Fishery Management Councils to set allocation review triggers and consider three types of trigger criteria: indicator, public interest, and time. Councils were directed to establish triggers for consideration of allocation reviews by August 2019. The Council's response follows:

The Council has reviewed species allocations on numerous occasions in the past. However, these reviews may not have been formally documented in a fishery management plan amendment if a decision was made not to modify sector allocations. This new policy will ensure all species currently having sector allocations will be reviewed on a regular basis and will formalize the allocation review process so the Council's consideration of allocations will be documented.

The Council reviewed their current sector allocations and began discussions on the Policy and Procedural Directives and criteria for considering fishery allocation reviews at their December 2018 meeting. At their June 2019 meeting, the Council adopted two types of criteria for triggering consideration of an allocation review: indicator and time.

The Council chose several indicator-based criteria as triggers:

- Either sector exceeds its ACL or closes prior to the end of its fishing year three out of five consecutive years,
- Either sector under harvests its ACL or OY by at least 50% three out of five consecutive years,
- After a stock assessment is approved by the SSC and presented to the Council, and
- After the Council reviews a species Fishery Performance Report.

The Council chose a time-based trigger to ensure allocation reviews are regularly considered. Each species will have its sector allocations reviewed not less than every seven years. Table 1 shows by species when the next sector allocation review will be considered by the Council should an indicator-based criterion not be triggered. Regardless of whether consideration of an allocation review is triggered by an indicator or time criterion once it occurs the next one will automatically be scheduled for consideration seven years later. For species which are jointly managed with the Gulf of Mexico Fishery Management Council, the timing for consideration of allocation reviews was coordinated with that council.

A public interest-based criterion was not selected because the Council currently receives substantial and regular comment from the public through scoping and public hearing sessions, general public comment periods held at every Council meeting, the public comment form on the Council's website, and through other more informal channels. Thus, the Council decided the existing Council process provides sufficient opportunity for public input on allocation.