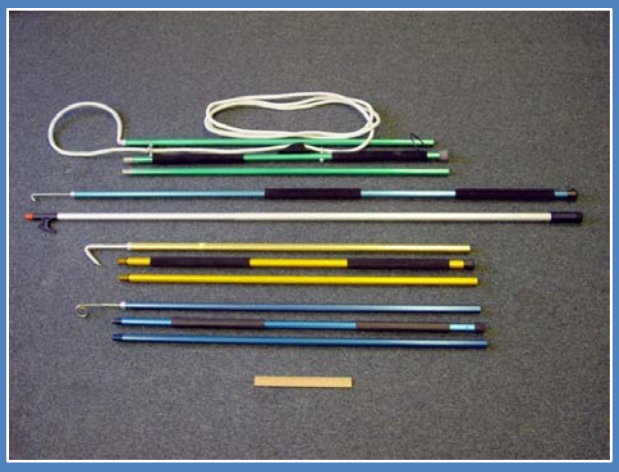

Amendment 42

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

Modifications to Sea Turtle Release Gear and Framework Procedure for the Snapper Grouper Fishery

Regulatory Impact Review | Regulatory Flexibility Analysis

April 2019

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

Definitions, Abbreviations and Acronyms Used in the FMP

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

Amendment 42 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region

Proposed actions:	Modify the sea turtle handling and release gear requirements for the snapper grouper fishery; and expand the snapper grouper framework procedure to include sea turtle and other protected resources handling and release gear requirements.
Lead agency:	Amendment – South Atlantic Fishery Management Council (Council) Categorical Exclusion – National Marine Fisheries Service (NMFS), Southeast Regional Office
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Chapter 1. Introduction

1.1 What Actions are Being Proposed?

- ***South Atlantic Fishery Management Council*** – Engages in a process to determine a range of actions and alternatives and recommends action to NMFS.
- ***National Marine Fisheries Service*** and ***Council staffs*** – Develops alternatives based on guidance from the Council and analyzes the environmental impacts of those alternatives. If approved by the Secretary of Commerce, NMFS implements the action through rulemaking.

Amendment 42 to the Fishery Management Plan (FMP) for the Snapper Grouper Fishery of the South Atlantic Region (Snapper Grouper FMP) proposes changes to sea turtle handling and release requirements for owners and operators of vessels with federal South Atlantic commercial or charter vessel/headboat snapper grouper permits. The action would allow three additional sea turtle release gear types, approved by the National Marine Fisheries Service (NMFS) Southeast Fisheries Science Center (SEFSC), for use in handling and releasing incidentally caught sea turtles when fishing for snapper grouper species. The gear types include a collapsible hoop net (**Figure 1.1.1**), a sea turtle hoist (**Figure 1.1.2**), and a new type of dehooking device (**Figure 1.1.3**). There are also several clarifications that would be made by removing the word "approximately" from the regulations for currently required release gear and establishing a range or minimum requirement. Amendment 42 to the Snapper Grouper FMP (Amendment 42) also proposes modifications to the Snapper Grouper FMP framework procedure to allow for future changes to release gear requirements and handling protocols for sea turtles and other protected resources.

Figure 1.1.1. A collapsible hoop net that can be used to bring on board and subsequently release incidentally hooked sea turtles.
Photo credit: NMFS-SEFSC.

Figure 1.1.2. Example of a sea turtle hoist.
Photo credit: World Wildlife Fund.

Figure 1.1.3. Example of new sea turtle dehooker to release incidentally hooked sea turtles. Photo credit: NMFS-SEFSC.

1.2 Why is the Council Considering Action?

1.2.1 Sea Turtle Release Gear Requirements

The snapper grouper fishery in the South Atlantic region is known to interact with endangered and threatened sea turtles, endangered smalltooth sawfish, and threatened Nassau grouper. Adverse effects to these species may result from being hooked on or entangled in bottom longline and vertical line gear targeting snapper grouper species. Sea turtles, smalltooth sawfish, and Nassau grouper can be injured or killed as a result of interacting with fishing gear.

Biological Opinion:

BiOps document the NMFS opinion on how a proposed federal agency action affects ESA-listed species and critical habitat. Federal agencies are required to ensure that their proposed actions do not negatively impact the likelihood of survival and recovery of an ESA-listed species. BiOps that provide an exemption for the "take" of listed species specify the extent of take allowed. Reasonable and Prudent Measures are necessary to minimize impacts from any federal action and include the terms and conditions with which the action agency must comply. A BiOp also includes conservation recommendations that may further recovery of the specific ESA-listed species if implemented.

The Endangered Species Act (ESA) directs all federal agencies to ensure that any action they authorize, fund, or carry-out does not jeopardize the continued existence of an endangered or threatened species or designated or proposed critical habitat. The ESA requires that any federal agency proposing an action that may adversely affect an ESA-listed species or critical habitat, formally consult with the U.S. Fish and Wildlife Service or the NMFS (i.e., consulting agencies). The agency proposing the action (known as the action agency) will commonly complete an assessment on potential effects to the species or its habitat and submit it to the consulting agency. The consulting agency then renders a Biological Opinion (BiOp) to the action agency making the proposal.

In June 2006, NMFS completed a BiOp on the snapper grouper fishery of the South Atlantic region evaluating all actions through Amendment 13C to the Snapper Grouper FMP (SAFMC 2006) and concluded that the fishery would not likely jeopardize the continued existence or destroy or adversely modify designated critical habitat for loggerhead, green, hawksbill, Kemp's

ridley, or leatherback sea turtles nor smalltooth sawfish (NMFS 2006). Listed in the terms and conditions of the BiOp was a reasonable and prudent measure to implement endangered and threatened species handling protocol and/or guidelines for the commercial and charter vessel/headboat components of the fishery. Amendment 15B to the Snapper Grouper FMP (Amendment 15B) implemented the sea turtle and sawfish handling guidelines and protocol and required proper handling and release equipment to increase the likelihood of survival (SAFMC 2008). The preferred gear from Amendment 15B is listed in **Table 1.2.1.1**.

The required gear for safe sea turtle handling and release was initially the same gear as required for vessels using pelagic longline gear. However, most effort in the snapper grouper fishery in the South Atlantic region occurs on smaller vessels using much lighter tackle than used when longline fishing for pelagic species. Comprehensive Ecosystem-Based Amendment 2 (CE-BA 2) modified sea turtle release gear requirements to allow smaller vessels to have fewer gear requirements based on the freeboard height of the vessel (**Table 1.2.1.1** [SAFMC 2011]).

Table 1.2.1.1. Sea turtle release gear for the snapper grouper fishery.

Implemented in Snapper Grouper Amendment 15B	**Revised by CE-BA2**	
All vessels	**Freeboard 4 ft or less**	**Freeboard greater than 4 ft or using longline gear**
Long-handled line clippers[1]	-	Long-handled line cutter
Dip net	Dip net	Dip net
Long-handled dehooker for internal hooks [1,2]	-	Long-handled dehooker for internal hooks [1,2]
Long-handled dehooker for external hooks [1,2, 3]	-	Long-handled dehooker for external hooks [1,2, 3]
Long-handled device to pull an inverted "V" [1]	-	Long-handled device to pull an inverted "V" [1]
Tire (standard passenger sized) [4]	Cushion or support device (i.e., boat cushion)	Cushion/support device (i.e., boat cushion)
Short-handled dehooker for internal hooks [5]	Short-handled dehooker for internal hooks [5]	Short-handled dehooker for internal hooks [5]
Short-handled dehooker for external hooks [3, 5]	Short-handled dehooker for external hooks [3, 5]	Short-handled dehooker for external hooks [3, 5]
Long-nose or needle-nose pliers[6]	Long-nose or needle-nose pliers[6]	Long-nose or needle-nose pliers[6]
Bolt cutters	Bolt cutters	Bolt cutters
Monofilament line cutters [7]	Monofilament line cutters	Monofilament line cutters
Mouth openers or mouth gags	At least two types of mouth openers or mouth gags	At least two types of mouth openers or mouth gags

[1] handle length 6 feet or 150% of freeboard - whichever is greater
[2] may substitute short-handle dehooker if used with appropriate length handle extender
[3] may substitute internal dehooker if the dehooker also meets the criteria for an external dehooker
[4] may use other comparable, cushioned, elevated surface
[5] handle length should be 16-24 inches
[6] must be approximately 12 inches in length
[7] must be approximately 7 ½ inches in length

Commercial and charter vessel/headboat snapper grouper permit holders are also required to possess inside the wheelhouse, or within a waterproof case if no wheelhouse, a copy of the most updated document provided by NMFS titled, "Careful Release Protocols for Sea Turtle Release With Minimal Injury" (Release Protocols) and to post inside the wheelhouse, or in an easily viewable area if no wheelhouse, sea turtle handling and release guidelines provided by NMFS.[1] The Release Protocols were originally published in 2004 (Epperly et al. 2004). Revised editions were released in 2008 and 2010 (NMFS-SEFSC 2008, Revised 2010), and a new update is being developed for publication. In the pending update, three additional turtle release gear types were approved by the SEFSC for use in handling and releasing incidentally caught sea turtles when fishing for snapper grouper. Additionally, there are several clarifications in the update including: the size and dimension requirements for needle-nose or long-nose pliers, monofilament line cutters, bolt cutters, block of hard wood, and hank of rope; specification of acceptable grades of stainless-steel for the construction of the short-handled and long-handled dehookers for internal and external hooks; specification of dedicated personal flotation device or throw ring if it will be used as a cushion or support device for a sea turtle, as well as removal of end covering requirements for canine mouth gags. However, these new release gear types and new dimensions for existing release gear are not approved for use by fishermen participating in the snapper grouper fishery until implemented in the regulations.

Currently, the applicable regulations at 50 CFR part 622 require federally permitted snapper grouper vessels to carry certain types of release gear, but there are typically multiple options for specific devices that will satisfy the gear requirements. For example, vessels are required to carry a dip net on board, however, there are numerous options that satisfy the minimum regulatory specifications. The primary goal of this amendment is to add three new devices to the regulations, alongside the other sea turtle release gear options that are already authorized. These three new devices (collapsible hoop net, sea turtle hoist, and dehooker) are not the only devices that industry may use but are in addition to the existing authorized devices for industry, providing greater flexibility (**Appendix A**).

Two of the new sea turtle release gear types, the collapsible hoop net (**Figure 1.1.1**) and a sea turtle hoist (**Figure 1.1.2**), are more compact than the currently required dip net. Both gear types are used for bringing an incidentally captured sea turtle on board the fishing vessel to remove fishing gear. Either of these release gear devices would be able to be carried on board in place of the currently required dip net.

The collapsible hoop net is attached to hoops made of flexible stainless-steel cable, so that the net and hoop are both collapsible to make storage easier (**Figure 1.2.1.1**). When folded over on itself the collapsible hoop net reduces to about half of its original diameter. The collapsible hoop net must meet the following standards specified in the NMFS regulations:

- capable of lifting a minimum of 100 lbs with a minimum diameter of 31 inches,
- a minimum bag depth of 38 inches,
- a rope handle length of at least six feet or 150% of the freeboard height, whichever is greater,

[1] http://www.nmfs.noaa.gov/sfa/hms/compliance/workshops/protected_species_workshop/turtles/sea_turtle_handling_release_hookline.pdf.

- the maximum net mesh opening on the hoist and collapsible hoop net is a 3-inch bar measure (the non-stretched distance between a side knot and a bottom knot of a net mesh).

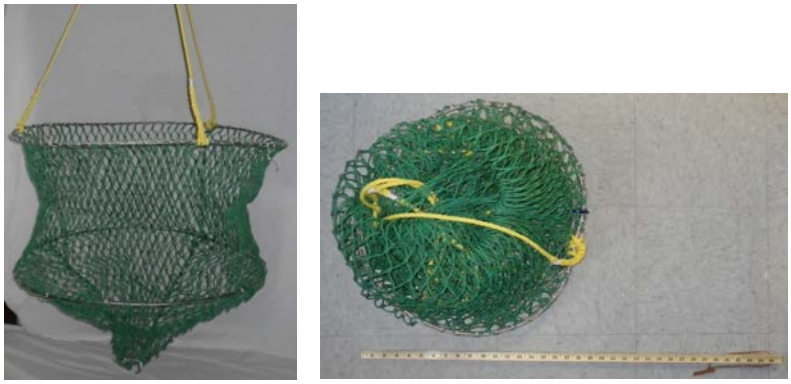

Figure 1.2.1.1. Example of a collapsible hoop net open and ready to be stored when folded.
Photo credit: NMFS-SEFSC

The sea turtle hoist can be used to bring sea turtles on board a vessel that cannot carry a traditional dip net, due to a high freeboard or limited space on the vessel. This gear has two variations, a flat design (**Figure 1.2.1.2**) and basket design (**Figure 1.2.1.3**). Both variations of the sea turtle hoist must meet the standards to be specified in the NMFS regulations:

- capable of lifting 100 lbs with a minimum inside diameter of 31 inches,
- no minimum bag depth requirement,
- a rope handle length of six feet or 150% of the freeboard height, whichever is greater,
- the mesh must be securely fastened to the hoop frame, such that a sea turtle up to 100 lb can be brought on board,
- the hoop frame can be constructed of aluminum, stainless-steel, polyvinyl chloride (PVC) pipe with a minimum of schedule 40, or another material capable of maintaining its shape when lifting a sea turtle.

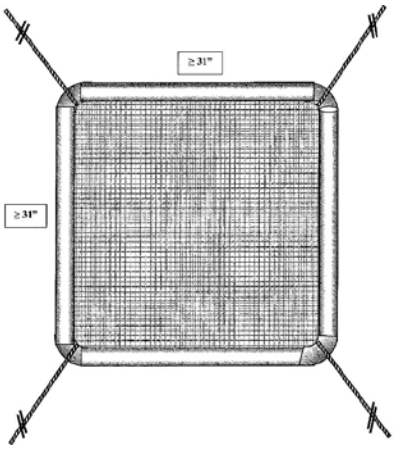

Figure 1.2.1.2. Example of a sea turtle hoist that can be constructed.
Photo credit: NMFS-SEFSC

The sea turtle basket hoist is an allowable variation on the sea turtle hoist (**Figure 1.2.1.3**). The standards specified in NMFS regulations are:

- capable of lifting 100 lbs with a minimum inside diameter of 31 inches,
- no minimum bag depth requirement,
- a rope handle length of six feet or 150% of the freeboard height, whichever is greater,
- the mesh must be securely fastened to the frame,
- the hoop frame can be constructed of aluminum, stainless-steel, PVC pipe with a minimum of schedule 40, or another material capable of maintaining its shape when lifting a sea turtle.

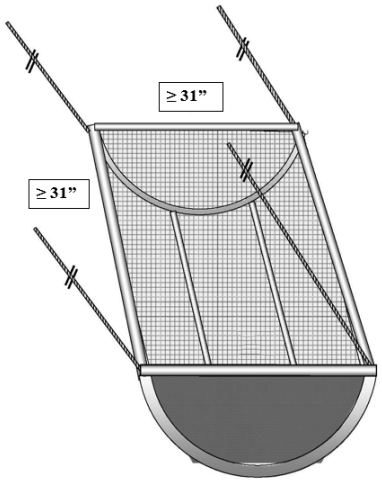

Figure 1.2.1.3. Example of a sea turtle basket style hoist.
Photo credit: NMFS-SEFSC

The squeeze handle dehooker is another short-handled dehooker option to remove external hooks from sea turtles (**Figure 1.1.3** and **Figure 1.2.1.4**). This device has been tested and approved to remove hooks from sea turtles with minimal injury. If a fishing hook is externally embedded and cannot be removed via needle-nose pliers or bolt cutters, then a dehooker may be used. This new release gear is appropriate for removing the range of hook sizes currently used in the snapper grouper fishery (e.g., 6/0-7/0) and hooks up to 10/0 in size. Use of the release gear will be further described in the pending revision to the Release Protocols. Currently, a short-handled dehooker for external hooks and short-handled dehooker for internal hooks are required (**Appendix A**). The new dehooking device must meet the minimum standards to be specified in the NMFS regulations:

- minimum of 11 inches overall length,
- the end of the device that secures the fishhook must be blunt and all edges rounded and must be constructed of 304L or 316L stainless-steel.

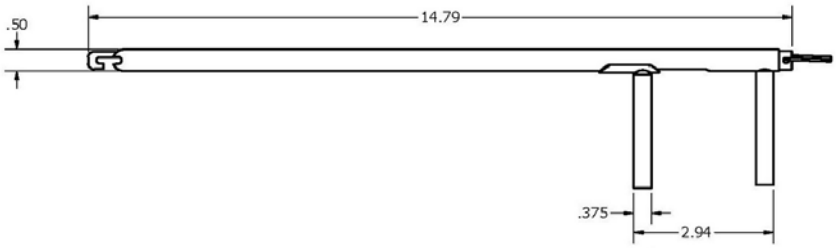

Figure 1.2.1.4. Example of a new sea turtle release dehooker with dimensions in inches.
*Photo credit: NMFS-SEFSC
*The minimum length is 11-inches.

This amendment would also clarify the dimension requirements for currently required sea turtle release gear. Specifically, references to approximations would be removed where applicable and a specific size range or minimum size would be stated. Additional clarifications identified by the SEFSC would also be updated. These include: clarification of dimension requirements for needle-nose and long-nose pliers, monofilament line cutters, bolt cutters, block of hard wood and hank of rope; specification of acceptable grades of stainless-steel for other short-handled and long-handled dehookers for internal and external device construction; specification of a dedicated cushion or support device when a personal floatation device is to be used; as well as removal of end covering requirements for canine mouth gags (**Table 1.2.1.2**).

Table 1.2.1.2. Summary of proposed gear changes and clarifications to regulations.

Gear Types Affected by Change	Clarifying Change in Gear
• Short-handled dehookers for internal and external hooks. • Bite block on the short-handled internal use dehooker. • Long-nose or needle-nose pliers. • Bolt cutters. • Block of hard wood and hank of rope when used as mouth openers and gags. • Monofilament line cutter.	Remove the term “approximately” and replace with either a minimum size or appropriate size range where applicable.
• Short and long handled dehookers.	Allow construction with 304L stainless-steel.
• Monofilament line cutter.	Allow blade length of one inch or longer.
• Mouth openers and gags.	Remove requirement to cover the ends of the canine mouth gags with clear vinyl tubing, friction tape, or similar.
• Cushion or support device.	Clarify that any life-saving device used to fulfill the sea turtle safe handling requirements cannot be used to also satisfy U.S. Coast Guard safety requirements.
• Paper copy of the Release Protocols on the vessel.	Allow fishermen to use an electronic copy of the document.

Fishermen indicated that it is difficult to find needle-nose and long-nose pliers that are approximately 12 inches as currently indicated in the regulations (**Appendix A**). It is not clear to fishermen and law enforcement officers whether pliers measuring less than 12 inches meet the current requirement for pliers to be "approximately 12 inches;" thus, a minimum dimension is recommended. Further, law enforcement officers and fishermen indicated it would be better to remove the word "approximately" from the regulations for other release gear types as appropriate (**Table 1.2.1.2**).

The SEFSC has also tested an additional stainless-steel material, 304L, and has deemed it sufficient for construction of all short-handled and long-handled dehookers. The regulations would be updated to notate 304L and 316L stainless-steel is acceptable. Current regulations state that the required monofilament line cutter must have a blade of one inch that was 5/8 inches wide when closed. However, due to dimensions of approved monofilament line cutters that are currently available, SEFSC clarified that the blade be a minimum length of one inch or greater, could be a minimum of 5/8 inch wide when closed, and the minimum total length could be six inches. Similarly, for bolt cutters a minimum total length of 14 inches was specified with a minimum of 4-inch long blades that are a minimum of 2 1⁄4 inches wide, when closed. The bolt cutters currently have a handle length requirement specified, although the SEFSC identified that this could be removed.

Current regulations state the canine mouth gag is required to have the ends covered with clear vinyl tubing, friction tape, or similar, to pad the surface. However, SEFSC determined that the clear vinyl tubing had the potential to cause slippage, and that the rubber feet installed on the device were adequate to protect the beak while maximizing the stability of the device for safety reasons. In addition, SEFSC determined that a specific length (six feet) to the hank of rope was not needed as the thickness was what was required and could take various lengths of rope depending on diameter. These requirements would be removed from the regulations after implementation of this amendment.

Lastly, there were safety at sea concerns if a fisherman wanted to use a personal floatation device as a sea turtle cushion or support device. A dedicated vessel cushion for boarding a sea turtle must also be on board the vessel and cannot be dually used as a personal floatation device due to U.S. Coast Guard (USCG) safety reasons because the personal floatation device must be throwable and immediately available. The USCG requires at least one flotation device of the proper size for each person on board the vessel. Therefore, any device used for sea turtles must be in addition to those meeting the USCG regulations. Additionally, any personal floatation device on board vessels with federal South Atlantic commercial or charter vessel/headboat snapper grouper permits must be in good and serviceable condition to avoid confusion during an emergency.

1.2.2 Snapper Grouper Framework Procedure

In addition to presenting information on the new SEFSC-approved release gear, this document would also modify the snapper grouper framework, so the Council may more quickly modify sea turtle and other protected resources release gear and handling requirements in the future.

The Council currently has three different regulatory mechanisms for addressing fishery management issues. First, they may develop an FMP or plan amendment to establish management measures. The amendment process can take 1 to 3 years depending on the analysis needed to support the proposed actions in the amendment. Second, the Council may vote to request an interim or emergency rule that could remain effective for 180 days, with the option to extend it for an additional 186 days. Interim and emergency rules are only meant as short-term management tools, while permanent regulations are developed through an amendment. Third, the Council may prepare a framework action based on a predetermined procedure that allows changes to specific management measures and parameters. Typically, framework actions take less than a year to implement, and, like plan amendments, are effective until amended.

The snapper grouper framework procedure was most recently updated in 2014 through Amendment 27 to the Snapper Grouper FMP (SAFMC 2014), but it does not currently allow changes to protected species release gear requirements (**Appendix C**). Thus, an amendment to the Snapper Grouper FMP is required to make these changes. Incorporating a process to allow timely changes to sea turtle and other protected resources release gear and handling requirements would streamline management, and reduce the burden associated with making future changes regarding sea turtle and other protected resources release gear and handling requirements. It can also be interpreted that making more restrictive changes (more gear, more requirements) would be easier to implement. However, this change to the framework procedure would only allow changes to release gear and handling protocols for sea turtles and other protected resources that are considered routine and/or insignificant for the snapper grouper fishery.

Following is the proposed language for the snapper grouper framework procedure to include changes to release gear requirements and handling protocols for sea turtles and other protected resources:

III. Procedure for implementing changes to the protected species release gear and protected species handling requirements.

This framework procedure would allow the Council to add or remove specific protected species release devices and modify the requirements for the safe handling of incidentally caught protected species through a more streamlined process than the routine plan amendment process. This process may be initiated by the Council based on the recommendation of NMFS staff to authorize the use of new release devices or new handling techniques that have been approved for use in the fishery. Such changes may be implemented via the following abbreviated process.

a. After receiving the NMFS recommendation for changes to the list of authorized release gear or the associated handling requirements, the Council shall convene its Protected Resources Committee to consider the changes.
b. The Council will hold a public hearing during the Council meeting at which the Protected Resources Committee discusses the recommendations. The Council will provide the public the opportunity to comment on the potential changes during the Council meeting.
c. If the Council then determines that modifications to the list of authorized release gear or the associated handling requirements are necessary and appropriate, the Council will notify the Regional Administrator (RA) of its recommendations in a

letter with the Council's analysis of the relevant biological, economic, and social information necessary to support the Council's action.

d. The RA will implement the Council's proposed action through publication of appropriate notification in the *Federal Register*, consistent with the requirements of the Magnuson-Stevens Fishery Conservation and Management Act and all other applicable law.

e. If the Council chooses to deviate from the recommendation of the NMFS, this abbreviated process would not apply, and either the framework procedure would apply with the preparation of a regulatory amendment or a fishery management plan amendment would be prepared. Additionally, the Council may choose to prepare a regulatory amendment or a fishery management plan amendment even if they do not deviate from the NMFS recommendation.

Summary of Snapper Grouper Amendment 42

The *purpose* is to allow the use of three new sea turtle release gear types and clarify dimension requirements for currently required release gear for incidentally hooked sea turtles. Further, the purpose is to streamline the process for allowing federal commercial and charter vessel/headboat snapper grouper permit holders to use additional gear types and handling procedures for incidentally hooked sea turtles and other protected species after they are approved by the NMFS.

The *need* is to provide appropriate flexibility in regulations to participants with a federal commercial and charter vessel/headboat snapper grouper permit as well as clarifying dimensions of currently required sea turtle release gear for both fishermen and law enforcement officers. Additionally, the need is to develop a process that allows changes in release gear requirements and handling procedures for sea turtles and other protected species to be implemented more quickly.

Amendment 42 would modify the regulations for vessels with commercial or charter vessel/headboat South Atlantic snapper grouper permits to allow the use of the recently NMFS-approved collapsible hoop net, dehooker device, and sea turtle hoist, as well as clarify dimension requirements for currently required release gear for incidentally hooked sea turtles.

Amendment 42 would modify the snapper grouper framework procedure to include changes to release gear requirements and handling protocols for sea turtles and other protected resources through the abbreviated documentation process for framework actions. Release gear requirements and handling protocols that could be implemented or changed would include release gear requirements for sea turtles and other protected resources and handling requirements for sea turtles and other protected resources.

1.3 What are the Biological Effects of the Action?

1.3.1 Sea Turtle Release Gear Requirements

The action is anticipated to assist with compliance and aid in the safe release of sea turtles and other protected species, thus providing positive biological effects. The action is anticipated to increase fisherman compliance by allowing additional flexibility in the regulatory requirements for fishermen. The increased compliance would result from fishermen being able to select the gear which is most appropriate for their vessel and fishing method to safely handle and release sea turtles, and therefore, result in an indirect biological benefit. Further, several of the currently required release gear type descriptions are confusing to both fishermen and law enforcement. By clearly defining the release gear, fishermen are more likely to have the proper gear on board if an interaction occurs. This will result in positive indirect biological benefits.

1.3.2 Snapper Grouper Framework Procedure

As this is primarily an administrative action, this action would only have indirect impacts on the biological environment, all of which would be expected to be beneficial in that they would facilitate effective release of incidentally captured protected species. The action would allow sea turtle and other protected species release gear and handling procedures to be modified through an abbreviated framework, thereby, providing the greatest flexibility for management and regulations to be enacted more quickly resulting in biological benefits in the future. For example, quickly implementing more efficient sea turtle release gear may allow sea turtle survivability to increase after incidentally hooking.

1.4 What are the Economic Effects of the Action?

1.4.1 Description of the Economic Environment for the Commercial Sector

Economic information pertaining to the commercial snapper grouper fishery is provided in Buck (2018) and is incorporated herein by reference. Select updates to this information are provided below. The major sources of data summarized in the commercial sector description are the NMFS Southeast Regional Office Permits Information Management System, the SEFSC's Socioeconomic Panel[2] data set, and the economic profile of the South Atlantic snapper grouper fishery provided in Overstreet, Perruso, and Liese (2018). Throughout **Section 1.4**, inflation adjusted prices and revenues are reported in 2017 dollars. All nominal dollar values were converted to 2017 dollars using the annual gross domestic product (GDP) implicit price deflator provided by the U.S. Bureau of Economic Analysis.

Permits

Any fishing vessel that harvests and sells any of the snapper grouper species from the South Atlantic exclusive economic zone (EEZ) must have a valid South Atlantic commercial snapper grouper permit. 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

[2] This data set is compiled by the SEFSC Social Science Research Group from Federal Logbook System data, supplemented by average prices calculated from the Accumulated Landings System. Because these landings are self-reported, they may diverge slightly from dealer-reported landings presented elsewhere.

will terminate if not renewed within one year of the expiration date. A vessel with an SG1 permit (Unlimited Permit) can harvest up to the full commercial trip limits for all snapper grouper species. A vessel with an SG2 permit (225-lb Trip-limited) is limited to 225 lbs total of snapper grouper species per trip. The number of valid or renewable snapper grouper permits declined steadily from 2013 through 2017 (**Table 1.4.1.1**).

Table 1.4.1.1. Number of valid or renewable South Atlantic commercial snapper grouper permits, 2013-2017.

	Unlimited Permits	225-lb Trip-limited	Total Permits
2013	592	129	721
2014	584	125	709
2015	571	121	692
2016	565	116	681
2017	554	114	668
Average	573	121	694

Source: NMFS SERO Permits Dataset, 2018.

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.[3] SG2 permits are not transferable except to a different vessel under the same owner or to an immediate family member. Although the decrease in SG1 permits has been greater in absolute numbers than the decrease in SG2 permits, the percentage decrease in SG2 permits has been greater than the percentage decrease in SG1 permits. Given that the 2-for-1 requirement only applies to SG1 permits, it is likely that other regulatory and socio-economic factors have contributed to these declines, particularly for the SG2 permits.

Landings, Value, and Effort[4]

The number of federally permitted commercial vessels that landed South Atlantic snapper grouper species increased from 2013 through 2015 and then decreased to a 5-year low in 2017 (**Table 1.4.1.2**). Landings of snapper grouper species fluctuated during this time. On average (2013 through 2017), vessels that landed snapper grouper species did so on approximately 71% of their South Atlantic trips and snapper grouper species accounted for 68% of their annual all species revenue, including revenue from Gulf of Mexico (Gulf) trips (**Table 1.4.1.2** and **Table 1.4.1.3**). The average all species vessel-level revenue for these vessels fluctuated from 2013 through 2017 (**Table 1.4.1.3**). During this time period, the average annual price per pound of snapper grouper species ranged from $3.13 to $3.44 (2017 dollars).

[3] Exceptions to this requirement are specified in CFR section 622.171, paragraphs (b)(1)(i) and (ii).
[4] The actions in this amendment are not expected to directly or indirectly affect South Atlantic snapper grouper dealers and thus information on these businesses is not included in this description.

Table 1.4.1.2. Number of vessels, number of trips, and landings (lbs gw) by year for South Atlantic snapper grouper species.

Year	# of vessels that caught snapper grouper species (> 0 lbs gw)	# of trips that caught snapper grouper species	snapper grouper species landings (lbs gw)	Other species' landings jointly caught w/ snapper grouper species (lbs gw)	# of South Atlantic trips that only caught other species	Other species' landings on South Atlantic trips w/o snapper grouper species (lbs gw)	All species landings on Gulf trips (lbs gw)
2013	576	10,226	5,500,725	532,669	4,337	1,841,767	923,495
2014	577	12,024	5,624,271	645,576	5,190	2,670,471	1,245,200
2015	580	11,029	5,332,296	505,083	4,484	2,085,362	1,012,701
2016	563	11,507	5,175,852	602,715	4,747	2,230,645	793,431
2017	545	11,246	5,212,159	732,363	4,658	2,095,915	882,923
Average	568	11,206	5,369,061	603,681	4,683	2,184,832	971,550

Source: SEFSC Socioeconomic Panel (Version 7) accessed by the SEFSC Economic Query System (January 2019).
Note: South Atlantic trips refer to trips taken in South Atlantic Council jurisdictional waters and Gulf trips refer to trips taken in Gulf of Mexico Fishery Management Council jurisdictional waters.

Table 1.4.1.3. Number of vessels and ex-vessel revenue by year (2017 dollars) for South Atlantic snapper grouper species.

Year	# of vessels that caught snapper grouper species (> 0 lbs gw)	Dockside revenue from snapper grouper species	Dockside revenue from 'other species' jointly caught w/ snapper grouper species	Dockside revenue from 'other species' caught on South Atlantic trips w/o snapper grouper species	Dockside revenue from 'all species' caught on Gulf trips	Total dockside revenue	Average total dockside revenue per vessel
2013	576	$17,217,942	$1,809,944	$3,452,530	$2,960,777	$25,441,193	$44,169
2014	577	$18,307,792	$2,267,861	$4,131,554	$3,973,477	$28,680,684	$49,707
2015	580	$17,964,032	$1,516,331	$3,297,663	$3,032,317	$25,810,343	$44,501
2016	563	$17,791,494	$1,692,765	$3,561,278	$2,237,209	$25,282,746	$44,907
2017	545	$17,012,736	$1,788,804	$3,566,427	$2,400,678	$24,768,645	$45,447
Average	568	$17,658,799	$1,815,141	$3,601,890	$2,920,892	$25,996,722	$45,746

Source: SEFSC Socioeconomic Panel (Version 7) accessed by the SEFSC Economic Query System (January 2019).
Note: South Atlantic trips refer to trips taken in South Atlantic Council jurisdictional or adjacent state waters and Gulf trips refer to trips taken in Gulf of Mexico Fishery Management Council jurisdictional or adjacent state waters.

For vessels with commercial South Atlantic snapper grouper permits that were active in the snapper grouper fishery from 2013 through 2017, average annual gross revenue was $45,476 per vessel. According to Overstreet, Perruso, and Liese (2018), annual net revenue from operations for commercial vessels in the snapper grouper fishery was approximately 5% of their average annual gross revenue from 2014 through 2016, while average net cash flow was about 19% of their average annual gross revenue during this time.[5] Net revenue from operations is the best available measure of economic profit for these vessels, though net cash flow may also be of interest to fishery participants and managers. Thus, annual net revenue from operations (economic profit) for snapper grouper vessels is estimated to be $2,046 per vessel, while average annual net cash flow per vessel is estimated to be $8,640 per vessel.

Imports

Imports of seafood products compete in the domestic seafood market and have in fact dominated many segments of the 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 have downstream effects on the local fish market. At the harvest level for snapper and grouper species, imports affect the returns to fishermen through the ex-vessel prices they receive for their landings. As substitutes to domestic production of snappers and groupers, 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 the domestic harvest of snapper and grouper species.

Imports[6] of fresh snapper increased steadily from 23.2 million lbs product weight (pw) in 2013 to 31.2 million lbs pw in 2017. During this time, total revenue from fresh snapper imports ranged from $72 million (2017 dollars) to $92 million. Imports of fresh snappers primarily originated in Mexico or Central America, and entered the U.S. through the port of Miami, Florida. Imports of fresh snapper were highest on average (2013 through 2017) during the months of March through July.

Imports of frozen snapper ranged from 9.3 million lbs pw to 14.4 million lbs pw during 2013 through 2017. The annual value of these imports ranged from $25 million (2017 dollars) to $39 million, with a peak in 2016. Imports of frozen snapper primarily originated in South America (especially Brazil), Indonesia, Mexico, and Central America. The majority of frozen snapper imports entered the U.S. through the ports of Miami, Florida, New York, New York, and San Juan, Puerto Rico. Imports of frozen snappers tended to be lowest during March through May when fresh snapper imports were high.

Imports of fresh grouper decreased from 10 million lbs pw in 2013 to 8.6 million lbs pw in 2014, then rose steadily to 12.3 million lbs pw in 2017. Total revenue from fresh grouper imports ranged from $37 million (2017 dollars) to $50.7 million during this time period. Imports of fresh grouper primarily originated in Mexico or Central America, and entered the U.S.

[5] The percentage estimates have been rounded to the closest full percentage point for current purposes based on guidance from the report's authors.

[6] NMFS purchases fisheries trade data from the Foreign Trade Division of the U.S. Census Bureau. Data are available for download at http://www.st.nmfs.noaa.gov/st1/trade/index.html.

through the Florida ports of Miami and Tampa. On average (2013 through 2017), monthly imports of fresh grouper were mostly stable with a peak in July.

Imports of frozen grouper ranged from 0.8 million lbs pw to 1.8 million lbs pw during 2013 through 2017. The annual value of these imports ranged from $1.5 million (2017 dollars) to $3.8 million, with a peak in 2014. Imports of frozen grouper primarily originated in Mexico and India. The majority of frozen grouper imports entered the U.S. through the Florida ports of Miami and Tampa. On average (2013 through 2017), monthly imports of frozen groupers were mostly stable with a peak in January.

Business Activity

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 seafood 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, such as other finfish or seafood products, and services, such as visits to different food service establishments. 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 snapper grouper species in the South Atlantic were derived using the model developed for and applied in NMFS (2017) and are provided in **Table 1.4.1.4**.[7] This business activity is characterized as jobs (full- and part-time), income impacts (wages, salaries, and self-employed income), output impacts (gross business sales), and value-added impacts, which represent the contribution made to the U.S. GDP. These impacts should not be added together because this would result in double counting. These results are based on average relationships developed through the analysis of many fishing operations that harvest many different species. Separate models to address individual species are not available.

Table 1.4.1.4. Average annual business activity (2013 through 2017) associated with the commercial harvest of snapper grouper species in the South Atlantic. All monetary estimates are in 2017 dollars.

Species	Average Ex-vessel Value ($ thousands)	Total Jobs	Harvester Jobs	Output (Sales) Impacts ($ thousands)	Income Impacts ($ thousands)	Value Added ($ thousands)
Snappers and Groupers	$17,999	2,361	560	$178,489	$65,548	$92,611

Source: Calculated by NMFS SERO using the model developed for and applied in NMFS (2017).

[7]A detailed description of the input/output model is provided in NMFS (2011).

1.4.2 Description of the Economic Environment for the Recreational Sector

The South Atlantic recreational sector is comprised of the private and for-hire modes. The private mode includes anglers fishing from shore (all land-based structures) and private/rental boats. The for-hire mode is composed of charter boats and headboats (also called party boats). Charter boats generally carry fewer passengers and charge a fee on an entire vessel basis, whereas, headboats carry more passengers and payment is per person. The type of service, from a vessel- or passenger-size perspective, affects the flexibility to search different fishing locations during the course of a trip and target different species since larger concentrations of fish are required to satisfy larger groups of anglers. The actions in this amendment are not expected to directly or indirectly affect private/rental boats, and thus the following description only covers the for-hire mode.

Angler Effort

Recreational effort derived from the Marine Recreational Information Program (MRIP) database can be characterized in terms of the number of trips as follows:

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

Estimates of snapper grouper target and catch effort[8] for charter vessels are provided in **Table 1.4.2.1** and **Table 1.4.2.2**, respectively. In 2018, MRIP transitioned from the old Coastal Household Telephone Survey (CHTS) to a new mail-based fishing effort survey (FES). The estimates presented in **Table 1.4.2.1** and **Table 1.4.2.2** are based on the CHTS and have not been calibrated to the FES; however, it is expected that such calibration would result in larger estimates. The majority of snapper grouper target and catch trips by charter vessels in the South Atlantic, as estimated by MRIP, were recorded in Florida. The number of target trips for snapper grouper species by charter vessels steadily decreased in North Carolina from 2013 through 2017, but fluctuated elsewhere during this time period.

[8] These estimates include all trips that targeted or caught one or more of the species managed under the South Atlantic Snapper Grouper FMP.

Table 1.4.2.1. South Atlantic charter vessels snapper grouper target trips by state, 2013-2017.*

	FL	GA	NC	SC	Total
2013	5,302	262	2,840	0	8,404
2014	7,011	989	2,167	4,833	15,000
2015	11,376	0	1,717	3,880	16,973
2016	6,647	756	1,480	1,602	10,485
2017	5,330	1,649	1,398	8,574	16,951
Average	7,133	731	1,920	3,778	13,563

Source: MRIP database, SERO, NMFS.
* Headboat data are unavailable.
Note: These estimates are based on the MRIP CHTS. Directed effort estimates calibrated to the new MRIP mail-based FES may be greater than those presented here.

Table 1.4.2.2. South Atlantic charter vessel snapper grouper catch trips by state, 2013-2017.

	FL	GA	NC	SC	Total
2013	63,206	3,544	11,314	2,761	80,825
2014	74,007	5,195	17,056	34,173	130,431
2015	108,508	5,285	16,811	34,083	164,687
2016	92,900	3,548	18,074	17,057	131,579
2017	95,420	3,943	17,104	41,520	157,987
Average	86,808	4,303	16,072	25,919	133,102

Source: MRIP database, SERO, NMFS.
* Headboat data are unavailable.
Note: These estimates are based on the MRIP CHTS. Directed effort estimates calibrated to the new MRIP mail-based FES may be greater than those presented here.

Similar analysis of recreational angler trips is not possible for the headboat mode because headboat data are not collected at the angler level. Estimates of effort by the headboat mode are provided in terms of angler days, or the total number of standardized full-day angler trips.[9] Headboat effort in the South Atlantic, in terms of angler days, increased substantially in Florida through Georgia from 2013 through 2014, leveled off through 2016, and then dropped sharply in 2017. In North Carolina and South Carolina, there were modest fluctuations in headboat effort during this time period (**Table 1.4.2.3**). Headboat effort was the highest, on average, during the summer months of June through August (**Table 1.4.2.4**).

[9] Headboat trip categories include half-, three-quarter-, full-, and 2-day trips. A full-day trip equals one angler day, a half-day trip equals 0.5 angler days, etc. Angler days are not standardized to an hourly measure of effort and actual trip durations may vary within each category.

Table 1.4.2.3. South Atlantic headboat angler days and percent distribution by state (2013 through 2017).

	Angler Days			Percent Distribution		
	FL/GA*	NC	SC	FL/GA	NC	SC
2013	165,679	20,547	40,963	72.93%	9.04%	18.03%
2014	195,890	22,691	42,025	75.17%	8.71%	16.13%
2015	194,979	22,716	39,702	75.75%	8.83%	15.42%
2016	196,660	21,565	42,207	75.51%	8.28%	16.21%
2017	126,126	20,170	36,914	68.84%	11.01%	20.15%
Average	175,867	21,538	40,362	74%	9%	17%

*East Florida and Georgia are combined for confidentiality purposes.
Source: NMFS Southeast Region Headboat Survey (SRHS).

Table 1.4.2.4. South Atlantic headboat angler days and percent distribution by month (2013 through 2017).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Headboat Angler Days											
2013	10,182	10,892	14,541	16,129	20,969	33,079	39,463	33,830	16,335	14,534	6,698	10,537
2014	8,748	13,512	19,808	22,570	25,764	39,115	44,066	32,886	15,203	15,235	9,088	14,611
2015	12,661	11,148	21,842	25,128	25,172	36,907	42,558	30,772	15,649	13,375	9,623	12,562
2016	9,818	12,243	23,872	22,217	27,374	37,454	45,744	29,223	17,061	9,202	12,820	13,404
2017	7,693	10,066	13,382	17,448	19,377	27,050	33,356	21,037	6,684	8,928	8,929	9,260
Avg	9,820	11,572	18,689	20,698	23,731	34,721	41,037	29,550	14,186	12,255	9,432	12,075
	Percent Distribution											
2013	4%	5%	6%	7%	9%	15%	17%	15%	7%	6%	3%	5%
2014	3%	5%	8%	9%	10%	15%	17%	13%	6%	6%	3%	6%
2015	5%	4%	8%	10%	10%	14%	17%	12%	6%	5%	4%	5%
2016	4%	5%	9%	9%	11%	14%	18%	11%	7%	4%	5%	5%
2017	4%	5%	7%	10%	11%	15%	18%	11%	4%	5%	5%	5%
Avg	4%	5%	8%	9%	10%	15%	17%	12%	6%	5%	4%	5%

Source: NMFS Southeast Region Headboat Survey (SRHS).

Permits

For-hire vessels are required to have a federal for-hire snapper grouper permit to fish for or possess snapper grouper species in the South Atlantic EEZ. This sector operates as an open access fishery and not all permitted vessels are necessarily active in the fishery. Some vessel owners may have obtained open access permits as insurance for uncertainties in the fisheries in which they currently operate.

In the period 2013 through 2017, the lowest number of for-hire vessel permits occurred in 2014 and the highest in 2017 (**Table 1.4.2.5**). The number of permits steadily increased after 2014, likely in part due to the Council considering a limited access system for the for-hire component of the snapper grouper fishery. The majority of snapper grouper for-hire permitted

vessels were home-ported in Florida; a relatively high proportion of these permitted vessels were also home-ported in North Carolina and South Carolina. Many vessels with South Atlantic for-hire snapper grouper permits were home-ported in states outside of the Council's area of jurisdiction. On average (2013-2017), these vessels accounted for approximately 10% of the total number of for-hire snapper grouper permits issued. As of December 20, 2018, there were 1,747 valid for-hire snapper grouper permits.

Although the for-hire permit application collects information on the primary method of operation, the permit itself does not identify the permitted vessel as either a headboat or a charter vessel and vessels may operate in both capacities. However, only federally permitted headboats are required to submit harvest and effort information to the NMFS Southeast Region Headboat Survey (SRHS). Participation in the SRHS is based on determination by the SEFSC that the vessel primarily operates as a headboat. As of June 11, 2018, 64 South Atlantic headboats were registered in the SRHS (K. Fitzpatrick, NMFS SEFSC, pers. comm.). The majority of these headboats were located in Florida/Georgia (39), followed by North Carolina (14) and South Carolina (11).

Table 1.4.2.5. For-hire permits, by homeport state, 2013-2017.

Home Port	2013	2014	2015	2016	2017	Average
North Carolina	307	294	308	331	362	320
South Carolina	150	160	188	212	215	185
Georgia	30	34	45	53	62	45
Florida	1,121	1,062	1,071	1,100	1,179	1,107
Gulf (AL-TX)	91	81	73	69	63	75
Others	100	96	94	102	101	99
Total	1,799	1,727	1,779	1,867	1,982	1,831

Source: NMFS, SERO Permits Dataset, 2018.

Economic Value

Participation, effort, and harvest are indicators of the value of saltwater recreational fishing. However, a more specific indicator of value is the satisfaction that anglers experience over and above their costs of fishing. The monetary value of this satisfaction is referred to as consumer surplus (CS). The value or benefit derived from the recreational experience is dependent on several quality determinants, which include fish size, catch success rate, and the number of fish kept. These variables help determine the value of a fishing trip and influence total demand for recreational fishing trips.

Direct estimates of the CS for every species potentially affected by this action are not currently available. There are, however, estimates for snapper and grouper species in general. Haab et al. (2012) estimated the CS willingness to pay (WTP) for one additional fish caught and kept) for snappers and groupers in the southeastern U.S. using four separate econometric modeling techniques. The finite mixture model, which takes into account variation in the preferences of fishermen, had the best prediction rates of the four models and, as such, was selected for presentation here. The WTP for an additional snapper (excluding red snapper)

estimated by this model was $12.47 (2017 dollars). This value may seem low and may be strongly influenced by the pooling effect inherent to the model in which it was estimated. The WTP for an additional red snapper, in comparison, was estimated to be $141.28 (2017 dollars). The WTP for an additional grouper was estimated to be $135.74 (2017 dollars). Another study estimated the value of the consumer surplus for catching and keeping a second grouper on an angler trip at approximately $105 (2017 dollars) and lower thereafter (approximately $70 for a third grouper, $52 for a fourth grouper, and $41 for a fifth grouper) (Carter and Liese 2012). Additionally, this study estimated the value of harvesting a second red snapper at approximately $82 (2017 dollars) and lower thereafter. No estimates were provided for other snapper species.

The foregoing estimates of economic value should not be confused with economic impacts associated with recreational fishing expenditures. Although expenditures for a specific good or service may represent a proxy or lower bound of value (a person would not logically pay more for something than it was worth to them), they do not represent the net value (benefits minus cost), nor the change in value associated with a change in the fishing experience.

With regards to for-hire businesses, economic value can be measured by producer surplus (PS) per passenger trip (the amount of money that a vessel owner earns in excess of the cost of providing the trip). Estimates of the PS per for-hire passenger trip are not available. Instead, net operating revenue (NOR), which is the return used to pay all labor wages, returns to capital, and owner profits, is used as a proxy for PS. For the South Atlantic region, estimated NOR values are $168 (2017 dollars) per charter angler trip and $45 per headboat angler trip (C. Liese, NMFS SEFSC, pers. comm.). Holland et al. (2012) estimated average annual gross revenue for charter vessels and headboats operating in the South Atlantic at $120,297 and $212,680 (2017 dollars), respectively. Estimates of average annual producer surplus or profits per vessel/boat are not available.

Business Activity

The desire for recreational fishing generates economic activity as consumers spend their income on various goods and services needed for recreational fishing. This spurs economic activity in the region where recreational fishing occurs. It should be clearly noted that, in the absence of the opportunity to fish, the income would presumably be spent on other goods and services and these expenditures would similarly generate economic activity in the region where the expenditure occurs. As such, the analysis below represents a distributional analysis only.

Estimates of the business activity (economic impacts) associated with recreational angling for South Atlantic snapper grouper species were calculated using average trip-level impact coefficients derived from the 2015 Fisheries Economics of the U.S. report (NMFS 2017) and underlying data provided by the National Oceanic and Atmospheric Administration (NOAA) Office of Science and Technology. Economic impact estimates in 2015 dollars were adjusted to 2017 dollars using the annual, not seasonally adjusted GDP implicit price deflator provided by the U.S. Bureau of Economic Analysis.

Business activity (economic impacts) for the recreational sector is characterized in the form of jobs (full- and part-time), income impacts (wages, salaries, and self-employed income), output

impacts (gross business sales), and value-added impacts (contribution to the GDP in a state or region). Estimates of the average annual economic impacts (2013-2017) resulting from South Atlantic recreational snapper grouper target trips are provided in **Table 1.4.2.6**. The average impact coefficients, or multipliers, used in the model are invariant to the "type" of effort and can therefore be directly used to measure the impact of other effort measures such as snapper grouper catch trips. To calculate the multipliers from **Table 1.4.2.6**, simply divide the desired impact measure (sales impact, value-added impact, income impact or employment) associated with a given state and mode by the number of target trips for that state and mode.

The estimates provided in **Table 1.4.2.6** only apply at the state-level. Addition of the state-level estimates to produce a regional (or national) total may underestimate the actual amount of total business activity, because state-level impact multipliers do not account for interstate and interregional trading. It is also important to note, that these economic impacts estimates are based on trip expenditures only and do not account for durable expenditures. Durable expenditures cannot be reasonably apportioned to individual species or species groups. As such, the estimates provided in **Table 1.4.2.6** may be considered a lower bound on the economic activity associated with those trips that targeted snapper grouper species.

Estimates of the business activity associated with headboat effort are not available. Headboat vessels are not covered in MRIP, so, in addition to the absence of estimates of target effort, estimation of the appropriate business activity coefficients for headboat effort has not been conducted.

Table 1.4.2.6. Estimated annual average economic impacts (2013-2017) from South Atlantic charter snapper grouper target trips by state using state-level multipliers. All monetary estimates are in 2017 dollars (in thousands).

	NC	SC	GA	FL
	Charter Mode			
Target Trips	1,920	3,778	731	7,133
Value Added Impacts	$677	$1,560	$186	$2,946
Sales Impacts	$1,266	$2,882	$340	$5,326
Income Impacts	$460	$1,015	$127	$1,894
Employment (Jobs)	10	26	3	41

Source: Effort data from MRIP; economic impact results calculated by NMFS SERO using NMFS (2017) and underlying data provided by the NOAA Office of Science and Technology.

1.4.3 Economic Effects of Proposed Changes to the Sea Turtle Release Gear Requirements

Allowing additional gear for sea turtle release and clarifying dimension requirements for currently required release gear would result in direct economic effects for commercial vessels and charter vessels/headboats with federal snapper grouper permits. In the case of a vessel owner purchasing release gear for the first time (such as with a new vessel) or replacement release gear for broken or otherwise unusable gear, the owner would examine the net economic benefits of the three new release gear types in relation to the current, available gear. The net economic benefits would include not only the cost of that particular device, but also any added benefits, such as saved space on board due to the collapsible nature of the collapsible hoop net.

Saved space would be of particular benefit to charter boats and bandit boats, which often have little extra room for this type of gear storage. If the net cost is lower, one or more of the three new gear types would be adopted. In the case of a vessel owner replacing still functional and usable release gear, the owner would consider the price of a particular new release device against any cost reductions, as well as any additional benefits, such as saved space on board; if the owner determines the net economic benefits of switching to be positive, he or she would replace his or her current device. Finally, because the current release gear would be supplemented by the three proposed gear types, vessel owners are not required to adopt one of the three proposed gear types.

Regarding the clarification of dimension requirements for currently required release gear, regulations currently state that, for design standards, needle-nose or long-nose pliers "should be approximately 12 inches in length" (NMFS-SEFSC 2008, Revised 2010), and this amendment would set the minimum length at 11 inches. Setting a specific minimum length limit removes ambiguity for fishermen in terms of compliance and thereby reduces risk of a non-compliance fine. In addition, fishermen have reported being unable to locate 12-inch pliers for purchase but have been able to secure primarily 11-inch and 15-inch pliers. Due to the dimensions of approved monofilament line cutters that are currently available on the market, this amendment would also modify the length from "approximately" 7½ inches to a minimum length of 6 inches. The dimension requirements for several other gear types are being clarified in cases where the regulations currently use the word "approximately" to describe those requirements. As appropriate, this amendment proposes to set the required dimension as a minimum, set the required dimension as a range, or set the smaller end of the current size range for the required dimension as a minimum. Similar to the length limit described for needle-nose or long-nose pliers, clarification of dimension requirements for these gear types removes ambiguity for fishermen in terms of compliance, and thereby reduces the risk of a fine or other penalty for non-compliance. As a result, allowing of the proposed additional release gear and clarifying dimension requirements would be expected to generate net economic benefits. There may be some additional costs associated with purchasing new gear if fishermen did not already have gear that was in compliance with the regulations.

The costs of the three proposed gear types as well as the currently approved gear are displayed in **Table 1.4.3.1**. Several companies produce the proposed dehooker, with price estimates that vary from $20 to $35. The $20 estimate is used for this analysis. Since the proposed dehooker is available for purchase online, vessel owners would have access to a range of producers from which to purchase, and vessel owners would attempt to purchase the lowest cost option. The proposed dehooker is about $1 more expensive than the ARC 24-inch handheld "game" model dehooker and about $4 more expensive than the ARC short-handled J-style dehooker, suggesting that vessel owners who use the ARC 24-inch handheld "game" model or the ARC short-handled J-style dehooker may not adopt the proposed dehooker if approved. The gear life of the current and proposed dehookers does not vary, for purposes of how frequently the gear would need to be replaced and thereby how often the cost savings would accrue. Dehookers typically do not wear out due to time and usage. Replacement of dehookers generally occurs as a result of gear falling overboard but could also occur as a result of a preference for a new gear type, and thus any cost savings would only be expected to occur in those events.

A retail purchased collapsible hoop net is $50 more expensive than a dip net, suggesting that vessel owners would not be expected to adopt the proposed device if approved. However, the collapsible hoop net does save space on board due to its collapsible nature. So, depending on the value of that space to a vessel owner, a retail purchased collapsible hoop net may still be adopted by some vessels. However, production, and thus availability, of the collapsible hoop net is very limited at present because it is not a currently approved gear. If the regulations are modified and the collapsible hoop net becomes an allowable gear and demand for it increases, gear producers would be expected to start producing more of this gear, and it would likely become more widely commercially available. In turn, the price may decrease as well, contributing to the adoptability of the gear by vessel owners. Taking into account the cost of parts and the time to produce a collapsible hoop net, self-construction would be about $15 cheaper than a dip net.[10] So, vessel owners may adopt the proposed device if they choose to construct the gear themselves. However, a compression machine is needed for construction, which may reduce the number of individuals that self-construct the gear.

Retail cost estimates for the proposed sea turtle hoist are not available, as they are not currently being produced and sold on the market. After accounting for the cost of parts and the time to produce it, a self-constructed PVC sea turtle hoist would be about $65 cheaper than a dip net and about $50 cheaper than a self-constructed collapsible hoop net,[11] suggesting that vessel owners may adopt this device if they are able to construct the device themselves. A self-constructed metal sea turtle hoist would be more expensive than one made of PVC. Materials would cost about $8 more, and welding skills and equipment would also be necessary in construction.

The gear life of the dip net, the collapsible hoop net, and the hoist depend primarily on sun exposure and weathering of the netting. The dip net might be more difficult to store out of the elements compared to the two proposed gear types, due to the length of the dip net handle being six feet (or 150% of the freeboard height if the freeboard height is 4 feet). In cases where the dip net is not stored out of the elements, replacement costs with the dip net may occur more frequently.

To estimate the potential total cost savings in regards to modifying dip net replacement options, an estimate of the number of affected vessels and average cost savings per vessel must be calculated. In 2017, the number of valid or renewable for-hire snapper grouper permitted vessels that would potentially be affected by the change in sea turtle release gear was 1,982 vessels; in addition, there were 554 valid or renewable SG1 permitted vessels and 114 SG2 permitted vessels that would potentially be affected (**Sections 1.4.1** and **1.4.2**). Based on information provided in Buck (2018) regarding permit portfolios of commercial snapper grouper permit holders, it is assumed that 21.8% of SG1 permitted vessels (121 vessels) and 23.6% of SG2 permitted vessels (27 vessels) also held a for-hire snapper grouper permit, bringing the estimated total number of vessels that may be affected by modifications to sea turtle release gear requirements to 2,502 vessels. For replacement of a dip net, vessel owners may expect estimated

[10] Cost estimate for self-construction of gear is based on material cost of $40 and 3 hours of labor at $23.47/hour, which is the average hourly wage of first-line supervisors in farming, fishing, and forestry. See https://www.bls.gov/oes/current/oes451011.htm.

[11] Cost estimate for self-construction of gear is based on material cost of $35 and 1 hour of labor at $23.47/hour.

cost reductions from $15 to $65, or about $40 on average per vessel, based on self-construction costs of the collapsible hoop net and PVC sea turtle hoist. Using the estimated 2,502 vessels that may be affected by modifications to sea turtle release gear requirements, a total cost savings of $100,080 may occur, assuming all affected vessels would eventually need replacement dip net gear and go with the lower cost options. This estimate of total cost savings would occur over several years rather than annually. Assuming that dip net gear must be replaced at least once every 10 years, the quantified estimated non-discounted cost savings that would result from the modifications to sea turtle release gear requirements is $10,008 annually.

If the regulations are modified to allow for the use of the three proposed gear types for sea turtle release, then as an indirect effect, producers of the proposed gear as well as producers of currently allowed gear may see some changes over time in the demand for their specific brand of product, as vessel owners take into consideration the net economic benefits already mentioned when deciding whether to switch gear. Thus, producers of gear that would provide a net economic benefit to vessels owners could be expected to see an increase in demand for their specific gear, whereas producers of gear that would not provide a net economic benefit to vessels owners could be expected to see a decrease in demand for their specific gear. Since allowing additional gear options for sea turtle release would not be expected to impact the number of vessels using sea turtle release gear, no impacts would be expected to the overall demand for this category of products.

Table 1.4.3.1. Summary of costs for proposed gear and current approved gear substitutions.

Status	Device	Retail Cost
Current	ARC Short-handled J-Style Dehooker	$16
Current	ARC 24″ Handheld “Game” Model Dehooker	$19
Proposed	New Short-handled Dehooker	$20-$35
Current	Dip net	$125
Proposed	Collapsible Hoop Net	$175, ($110)
Proposed	PVC Sea Turtle Hoist	($60)

Source: C. Bergmann, SEFSC, pers comm. Estimates in parentheses are self-construction costs.

1.4.4 Economic Effects of Proposed Changes to the Snapper Grouper Framework Procedure

Modifying the regulatory mechanism for addressing gear requirements and handling protocols for sea turtles and other protected species is not expected to result in direct economic effects to fishermen, as this is a procedural change and specific gear requirements and handling protocols are not specified. Indirect effects would be anticipated in that the timeline for modifications to release gear and/or handling requirements would be shortened, which would reduce costs to the government. However, the anticipated cost reductions to the government from a shorter timeline cannot be quantified. Still, any economic benefits to fishermen stemming from changes to the requirements would accrue faster by amending the framework procedure. If the framework procedure is not amended, the benefits to fishermen from changes in release gear and/or handling requirements would still occur, simply at a later date, with implementation being at greater cost to the government.

1.5 What are the Social Effects of the Action?

1.5.1 Sea Turtle Release Gear Requirements

Allowing fishermen to carry and use the three new release gear types is expected to result in direct social benefits. The collapsible hoop net and sea turtle hoist serve the same function as, and could be used in place of, the currently required dip net. These two new gear types are more compact, taking up less space on the vessel. Allowing more compact gear to be used in place of the currently required dip net addresses stakeholder concerns regarding space for release gear on their vessels. The new sea turtle dehooker may be carried on board in place of the currently required short-handled dehooker for removing ingested and external hooks. Snapper grouper commercial and charter vessel/headboat fishermen are already required to have release gear on board that serves the same function as the proposed new types of release gear and would not be required to purchase or construct the new types of release gear, thus avoiding any negative social effects associated with additional business expenses. Overall, allowing these three new gear types to be used to meet sea turtle release gear requirements for the snapper grouper fishery provides additional flexibility to fishermen when purchasing or replacing release gear. This additional flexibility is anticipated to result in small but positive direct social effects to fishing businesses and communities.

In addition to allowing the use of the proposed new release gear types, clarifying the dimension requirements for current release gear is anticipated to result in positive social effects. Reducing ambiguity in the regulations by removing language like “approximately” and replacing it with specific size limits would aid in interpretation of the regulations by law enforcement and fishermen. The proposed clarifications would provide a buffer between the approximate and new sizing (for example, changing “approximately 12-inches” to “a minimum of 11-inches” for the needle-nose pliers requirement). While possible, it is unlikely that fishermen would need to obtain new gear due to their existing gear not being compliant under the new language. Clarifying these regulations would aid fishermen when purchasing or replacing release gear and will aid law enforcement in determining release gear compliance again resulting in small but positive social effects to fishing businesses and communities.

1.5.2 Snapper Grouper Framework Procedure

Modifying the snapper grouper framework procedure to allow for release gear and handling protocols to be modified through an abbreviated framework procedure is expected to result in small, but positive social effects. Quick adoption of new types of release gear is expected to provide greater benefit to fishermen. Actions that are promulgated quickly may not provide for as much public input and comment on the actions as other regulatory processes. However, in these situations, the benefits of timely action should outweigh the diminished time frame for comment. Should modifications to release gear and/or handling protocols be proposed in the future that do benefit fishermen through added flexibility, or that are objectionable to fishermen, there could be some negative social effects. Even so, regulatory changes made through the abbreviated framework procedure must be categorized as insignificant or routine. It is assumed that controversial changes would not be made through this procedure avoiding potential negative social effects associated with quicker implementation.

1.6 Council Conclusions

1.6.1 Snapper Grouper Advisory Panel Comments and Recommendations

Snapper Grouper Advisory Panel (AP) members rarely encounter sea turtles or have issues with them becoming entangled in their fishing gear but supported increased flexibility for fishermen in complying with sea turtle release gear regulations. AP members noted that sea turtle release gear can be expensive and must be purchased regularly because it gets lost or damaged. Most vessels do not have enough storage for all the required release gear, especially the large nets. Additionally, detailed design specifications for certain release gear types can be challenging to find (e.g., needle-nose pliers). AP members expressed concerns about bringing sea turtles onto a vessel that could end up injuring the individuals on board, which in some cases are paying customers. Finally, it was noted that all charter vessel/headboat and commercial snapper grouper fishermen are required to carry sea turtle release gear on board, but private recreational fishermen are not required to carry release gear.

1.6.2 Public Comments and Recommendations

Majority of commenters noted that snapper grouper fishermen rarely, if ever, encounter sea turtles when utilizing hook-and-line gear. It was noted that sea turtle release gear gets rusty and becomes unusable due to lack of use. As a result, new gear must be purchased regularly. Commenters suggested sea turtle release gear regulations be simplified to help fishermen and law enforcement officials, and several commenters supported expanding turtle release gear to include additional compact and useful tools when possible. It was noted that many vessels have limited storage and sea turtle release gear takes up a substantial amount of space.

1.6.3 Council's Choice for Action

In the pending update to the "Careful Release Protocols for Sea Turtle Release Gear with Minimal Injury," three additional sea turtle release gear types were approved by the SEFSC for use in handling and releasing incidentally caught sea turtles when fishing for snapper grouper species. Additionally, there are several clarifications in the update. The three additional sea turtle release gear types and clarification of current requirements would provide greater flexibility for commercial and charter vessel/headboat snapper grouper permit holders and is anticipated to assist with compliance and aid in the safe release of sea turtles and other protected species. Additionally, modifying the snapper grouper framework procedure to allow for release gear and handling protocols to be modified through an abbreviated framework procedure would allow for quick adoption of new types of release gear and is expected to provide greater benefit and flexibility to fishermen.

The Council concluded that Amendment 42 to the Snapper Grouper FMP best meets the purpose of allowing the use of three new release gear types and clarifying dimension requirements for currently required release gear types for incidentally hooked sea turtles. Further, Amendment 42 streamlines the process for allowing federal commercial and charter vessel/headboat snapper grouper permit holders to use additional gear types and handling procedures of incidentally hooked sea turtles and other protected species as they are approved by the National Marine Fisheries Service. The Council determined that Amendment 42 best meets the objectives of the Snapper Grouper FMP, as amended.

Chapter 2. Regulatory Impact Review

Introduction

The National Marine Fisheries Service (NMFS) requires a Regulatory Impact Review (RIR) for all regulatory actions that are of public interest to satisfy our obligations under Executive Order (E.O.) 12866, as amended. In conjunction with the analysis of direct and indirect effects in the "Environmental Consequences" section of this amendment, the RIR: 1) provides a comprehensive review of the level and incidence of impacts associated with a regulatory action; 2) provides a review of the problems and policy objectives prompting the regulatory proposals and an evaluation of the major alternatives which could be used to solve the problem; and 3) ensures that the regulatory agency systematically and comprehensively considers all available alternatives so that the public welfare can be enhanced in the most efficient and cost effective way. The RIR also serves as the basis for determining whether any proposed regulations are a "significant regulatory action" under certain criteria provided in E.O. 12866. In addition, the RIR provides some information that may be used in conducting an analysis of the effects on small entities pursuant to the Regulatory Flexibility Act (RFA). This RIR analyzes the effects that this regulatory action that would be expected to have on the commercial and recreational sector of the South Atlantic snapper grouper fishery.

Problems and Objectives

The problems and objectives for the proposed actions are presented in **Section 1.2** of this amendment and are incorporated herein by reference.

Description of Fisheries

A description of the commercial and recreational sectors in the snapper grouper fishery of the South Atlantic region is provided in **Sections 1.4.1** and **1.4.2** of this amendment and is incorporated herein by reference.

Effects of Management Measures

Sea Turtle Release Gear Requirements

A detailed analysis and discussion of the expected economic effects of the proposed changes to sea turtle release gear requirements is included in **Section 1.4.3**. The following discussion summarizes the expected economic effects relative to the current regulations (i.e., the status quo).

Allowing additional gear for safe sea turtle release and clarifying dimension requirements for currently required release gear would result in direct economic effects for commercial vessels and charter vessels/headboats with federal snapper grouper permits. In the case of a vessel

owner purchasing release gear for the first time (such as with a new vessel) or replacement release gear for broken or otherwise unusable gear, the owner would examine the net economic benefits of the three new release gear type in relation to the current, available gear. The net economic benefits would include not only the cost of that particular device, but also any added benefits, such as saved space on board due to the collapsible nature of the collapsible hoop net. Saved space would be of particular benefit to charter boats and bandit boats, which often have little extra room for this type of gear storage. If the net cost is lower, one or more of the three new gear types would be adopted. In the case of a vessel owner replacing still functional and usable release gear, the owner would consider the price of a particular new release device against any cost reductions, as well as any additional benefits, such as saved space on board; if the owner determines the net economic benefits of switching to be positive, he or she would replace his or her current device. Finally, because the current release gear would be supplemented by the three proposed gear types, vessel owners are not required to adopt one of the three proposed gear types.

The additional options for replacing dip net gear provide economic benefits through potential cost savings. To estimate these potential total cost savings, an estimate of the number of affected vessels and average cost savings per vessel must be calculated. In 2017, the number of valid or renewable for-hire snapper grouper permitted vessels that would potentially be affected by the change in sea turtle release gear was 1,982 vessels; in addition, there were 554 valid or renewable SG1 permitted vessels and 114 SG2 permitted vessels that would potentially be affected. Based on information provided in Buck (2018) regarding permit portfolios of commercial snapper grouper permit holders, it is assumed that 21.8% of SG1 permitted vessels (121 vessels) and 23.6% of SG2 permitted vessels (27 vessels) also held a for-hire snapper grouper permit, bringing the estimated total number of vessels that may be affected by modifications to sea turtle release gear requirements to 2,502 vessels. For replacement of a dip net, vessel owners may expect estimated cost reductions from $15 to $65, or about $40 on average per vessel, based on self-construction costs of the collapsible hoop net and PVC sea turtle hoist. Applying the estimated 2,502 vessels that may be affected by modifications to sea turtle release gear requirements, a total cost savings of $100,080 may occur, assuming all affected vessels will eventually need replacement dipnet gear and go with the lower cost options. This estimate of total cost savings would occur over several years rather than annually. Assuming that dip net gear must be replaced at least once every 10 years, the quantified estimated cost savings that would result from the modifications to sea turtle release gear requirements is $10,008 annually.

Regarding the clarification of dimension requirements for currently required release gear, regulations currently state that, for design standards, needle-nose or long-nose pliers “should be approximately 12 inches in length” and this amendment would set the minimum length at 11 inches. Setting a specific minimum length limit removes ambiguity for fishermen in terms of compliance and thereby reduces risk of a non-compliance fine. In addition, fishermen have reported being unable to locate 12-inch pliers for purchase but have been able to secure primarily 11-inch and 15-inch pliers. Due to the dimensions of approved monofilament line cutters that are currently available on the market, this amendment would also modify the length from “approximately” 7½ inches to a minimum length of 6 inches. The dimension requirements for several other gear types are being clarified in cases where the regulations currently use the word

"approximately" to describe those requirements. As appropriate, this amendment proposes to set the required dimension as a minimum, set the required dimension as a range, or set the smaller end of the current size range for the required dimension as a minimum. Similar to the length limit described for needle-nose or long-nose pliers, clarification of dimension requirements for these gear types removes ambiguity for fishermen in terms of compliance, and thereby reduces the risk of a fine or other penalty for non-compliance. As a result, allowing of the proposed additional release gear and clarifying dimension requirements would be expected to generate net economic benefits. There may be some additional costs associated with purchasing new gear if fishermen did not already have gear that was in compliance with the regulations.

If the regulations are modified to allow for the use of the three proposed gear types for sea turtle release, then as an indirect effect, producers of the proposed gear as well as producers of currently allowed gear may see some changes over time in the demand for their specific brand of product, as vessel owners take into consideration the net economic benefits already mentioned when deciding whether to switch gear. Thus, producers of gear that would provide a net economic benefit to vessels owners could be expected to see an increase in demand for their specific gear, whereas producers of gear that would not provide a net economic benefit to vessel owners could be expected to see a decrease in demand for their specific gear. Since allowing additional gear options for sea turtle release would not be expected to impact the number of vessels using sea turtle release gear, no impacts would be expected to the overall demand for this category of products.

Snapper Grouper Framework Procedure

A detailed analysis and discussion of the expected economic effects of the proposed changes to the snapper grouper framework procedure is included in **Section 1.4.4**. The following discussion summarizes the expected economic effects relative to the current regulations (i.e., the status quo).

Modifying the regulatory mechanism for addressing gear requirements and handling protocols for sea turtles and other protected species is not expected to result in direct economic effects to fishermen, as this is a procedural change and specific gear requirements and handling protocols are not specified. Indirect effects would be anticipated in that the timeline for modifications to release gear and/or handling requirements would be shortened, which would reduce costs to the government. However, the anticipated cost reductions to the government from a shorter timeline cannot be quantified. Still, any economic benefits to fishermen stemming from changes to the requirements would accrue faster by amending the framework procedure. If the framework procedure is not amended, the benefits to fishermen from changes in release gear and/or handling requirements would still occur, simply at a later date, with implementation being at greater cost to the government.

Public Costs of Regulations

The preparation, implementation, enforcement, and monitoring of this or any federal action involves the expenditure of public and private resources which can be expressed as costs

associated with the regulations. Costs to the private sector are discussed in the effects of management measures. Estimated public costs associated with this action include:

South Atlantic Fishery Management Council (Council) costs of document preparation, meetings, public hearings, and information dissemination	$15,000
NMFS administrative costs of document preparation, meetings and review	$15,000
TOTAL	$30,000

The estimate provided above does not include any law enforcement costs. Any enforcement duties associated with this action would be expected to be covered under routine enforcement costs rather than an expenditure of new funds. Council and NMFS administrative costs directly attributable to this amendment and the rulemaking process would be incurred prior to the effective date of the final rule implementing this amendment.

Net Benefits of Regulatory Action

In terms of net benefits, actions identified to decrease costs may also be expected to increase net economic benefits. It is important to specify the time period being considered when evaluating benefits and costs. According to the Office of Management and Budget's FAQs regarding Circular A-4,[12] "When choosing the appropriate time horizon for estimating costs and benefits, agencies should consider how long the regulation being analyzed is likely to have resulting effects. The time horizon begins when the regulatory action is implemented and ends when those effects are expected to cease. Ideally, analysis should include all future costs and benefits. Here as elsewhere, however, a 'rule of reason' is appropriate, and the agency should consider for how long it can reasonably predict the future and limit its analysis to this time period. Thus, if a regulation has no predetermined sunset provision, the agency will need to choose the endpoint of its analysis on the basis of a judgment about the foreseeable future."

For current purposes, the reasonably "foreseeable future" is considered to be the next 10 years. There are two primary reasons for considering the next 10 years the appropriate time period for evaluating the benefits and costs of this regulatory action rather than a longer (or shorter) time period. First, this regulatory action does not include a predetermined sunset provision. Second, based on the history of management in the snapper grouper fishery, regulations regarding sea turtle release gear are revisited about once every 10 years or so.

The analyses of the quantified net changes in economic benefits through cost savings indicates an annual increase in benefits of $10,008. In discounted terms and over a 10-year time period, the total net present value of this increase in benefits is $70,292 using a 7% discount rate and $85,370 using a 3% discount rate. The estimated non-discounted public costs resulting from the regulation are $30,000. The costs resulting from the amendment and the associated rulemaking process should not be discounted as they will be incurred prior to the effective date of the final rule.

[12] See p. 4 at https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/OMB/circulars/a004/a-4_FAQ.pdf

Based on this information, this regulatory action is expected to increase net benefits to the Nation. Over a 10-year time period, the quantified net economic benefits are expected to be $40,292 using a 7% discount rate and $55,370 using a 3% discount rate.

Determination of Significant Regulatory Action

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

Chapter 3. Regulatory Flexibility Act Analysis

3.1 Introduction

The purpose of the Regulatory Flexibility Act (RFA) is to establish a principle of regulatory issuance that agencies shall endeavor, consistent with the objectives of the rule and of applicable statutes to fit regulatory and informational requirements to the scale of businesses, organizations, and governmental jurisdictions subject to regulation. To achieve this principle, agencies are required to solicit and consider flexible regulatory proposals and to explain the rationale for their actions to assure such proposals are given serious consideration. The RFA does not contain any decision criteria; instead the purpose of the RFA is to inform the agency, as well as the public, of the expected economic effects of various alternatives contained in the regulatory action and to ensure the agency considers alternatives that minimize the expected economic effects on small entities while meeting the goals and objectives of the applicable statutes (e.g., the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act)).

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

In addition to the information provided in this section, additional information on the expected economic effects of the proposed action is included in the RIR.

3.2 Statement of the need for, objectives of, and legal basis for the rule

A discussion of the reasons why action by the agency is being considered is provided in Section 1.3. The purposes of this proposed action are to allow the use of three new sea turtle release gear types by vessels in the commercial snapper grouper fishing industry (i.e., vessels with Federal commercial South Atlantic snapper grouper permits) and for-hire snapper grouper fishing industry (i.e., vessels with Federal charter vessel/headboat South Atlantic snapper grouper permits); establish a new and clearer minimum length for long-nose and needle-nose pliers used to release incidentally hooked sea turtles and other protected species in the commercial and for-hire sectors of the South Atlantic snapper grouper fishery; clarify dimension requirements for other currently required release gear for incidentally hooked sea turtles and other protected species; and modify the snapper grouper fishery management plan framework procedure to include changes to release gear requirements through the abbreviated process. The objectives of this proposed action are to provide greater flexibility to vessels in the commercial snapper grouper fishing industry and for-hire snapper grouper fishing industry in complying with release gear regulations, clarify existing requirements of currently required release gear for fishery participants and law enforcement officers, and streamline the process for future revisions to release gear and handling procedures for incidentally captured sea turtles and other protected species after approval by the National Marine Fisheries Service (NMFS) Southeast Fisheries Science Center.

The Magnuson-Stevens Act serves as the legal basis for the proposed regulatory action.

3.3 Description and estimate of the number of small entities to which the proposed action would apply

This proposed regulatory action would allow vessels in the commercial and for-hire South Atlantic snapper grouper industries to use a collapsible hoop net or sea turtle hoist rather than a dip net to bring an incidentally captured sea turtle on board, and a new dehooking device to remove an externally embedded hook from a sea turtle. This proposed regulatory action would also clarify requirements for currently required gear used to remove fishing gear from sea turtles to aid fishermen and law enforcement personnel with compliance and enforcement efforts. Existing regulations use the word “approximately” to define some gear specifications, and this proposed rule would replace “approximately” in the applicable regulations where precise specifications would clarify requirements for the dimensions or lengths of several devices, including the short-handled dehookers for internal and external hooks, bite block on the short-handled internal use dehooker, long-nose or needle-nose pliers, bolt cutters, and the block of hard wood and hank of rope when used as mouth openers and gags. In general, these clarifications would either establish the currently approximate dimensions as a minimum, or establish the smaller end of the current size range for the required dimensions as a minimum. Specific proposed changes of importance from a cost perspective are requiring long-nose or needle-nose pliers with a minimum length of 11 inches (28 cm), rather than “approximately” 12 inches (30 cm) in overall length, and changing the required length of monofilament line cutters from “approximately” 7.5 inches (19 cm) to a minimum of 6 inches (15 cm). Thus, this

proposed regulatory action is expected to directly regulate vessels (businesses) in the commercial and for-hire South Atlantic snapper grouper fishing industries.

In 2017, the number of vessels with valid or renewable for-hire snapper grouper permits was 1,982. In addition, there were 554 vessels with valid or renewable unlimited snapper grouper (SG1) commercial permits and 114 vessels with 225-lb trip limited snapper grouper (SG2) commercial permits. Based on information provided in a recent analysis regarding permit portfolios of commercial snapper grouper permit holders, it is assumed that 21.8% of SG1 permitted vessels (121 vessels) and 23.6% of SG2 permitted vessels (27 vessels) also held a for-hire snapper grouper permit. Based on this information, an estimated 148 vessels hold both a commercial and a for-hire snapper grouper permit. Thus, 2,502 vessels are expected to be directly regulated by this proposed regulatory action.

Although NMFS possesses complete ownership data for businesses and vessels that participate in other industries, ownership data regarding businesses that possess commercial or charter vessel/headboat South Atlantic snapper grouper permits is incomplete. Therefore, it is not currently feasible to accurately determine affiliations between these particular businesses. As a result of the incomplete ownership data, for purposes of this analysis, it is assumed each of these vessels is independently owned by a single business, which is expected to result in an overestimate of the actual number of businesses directly regulated by this proposed regulatory action. Thus, this proposed regulatory action is estimated to directly regulate 2,502 businesses in the commercial and for-hire South Atlantic snapper grouper fishing industries.

All monetary estimates in the following analysis are in 2017 dollars. For vessels with commercial South Atlantic snapper grouper permits that were active in the snapper grouper fishery from 2013 through 2017, average annual gross revenue was $45,476 per vessel. According to Overstreet, Perruso, and Liese (2018), annual net revenue from operations for vessels in the commercial snapper grouper industry was approximately 5% of their average annual gross revenue from 2014 through 2016, while average net cash flow was about 19% of their average annual gross revenue during this time. Net revenue from operations is the best available measure of economic profit for these vessels, though net cash flow may also be of interest to fishery participants and managers. Thus, annual net revenue from operations (economic profit) for snapper grouper vessels is estimated to be $2,046 per vessel, while average annual net cash flow per vessel is estimated to be $8,640 per vessel. According to Holland et al. (2012), the average annual gross revenue for a South Atlantic headboat is $212,680 while the average annual gross revenue for a South Atlantic charter vessel is $120,297.

The Small Business Administration (SBA) has established size standards for all major industry sectors in the U.S. including for-hire businesses (NAICS code 487210). A business primarily involved in for-hire fishing is classified as a small business if it is independently owned and operated, is not dominant in its field of operation (including its affiliates), and has annual receipts (revenue) not in excess of $7.5 million for all its affiliated operations worldwide. In 2017, the maximum annual gross revenue for a single headboat in the South Atlantic was about $748,000 (D. Carter, pers. comm.). Because average annual gross revenue for headboats in the South Atlantic is significantly greater than average annual gross revenue for charter

vessels, it is assumed the maximum annual gross revenue for charter vessels is less than $748,000.

On December 29, 2015, NMFS issued a final rule establishing a small business size standard of $11 million in annual gross receipts (revenue) for all businesses primarily engaged in the commercial fishing industry (NAICS code 11411) for RFA compliance purposes only (80 FR 81194, December 29, 2015). In addition to this gross revenue standard, a business primarily involved in commercial fishing is classified as a small business if it is independently owned and operated, and is not dominant in it field of operations (including its affiliates). For the vessels with commercial South Atlantic snapper grouper permits, the maximum annual gross revenue earned by a single vessel that was active in the industry between 2013 and 2017 was approximately $1.43 million.

Based on the information above, all businesses directly regulated by this proposed regulatory action are determined to be small businesses for the purpose of this analysis.

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

This proposed regulatory action would not establish any new reporting or record-keeping requirements. However, for vessels with commercial or charter vessel/headboat permits in the South Atlantic snapper grouper fishery, it will expand the available options for complying with release gear regulatory requirements for sea turtles and other protected species. See the discussion in Section 3.6 for additional details.

3.5 Identification of all relevant federal rules, which may duplicate, overlap or conflict with the proposed rule

No duplicative, overlapping, or conflicting federal rules have been identified.

3.6 Significance of economic effects on small entities

Substantial number criterion

This proposed regulatory action, if implemented, would be expected to directly regulate all 2,502 vessels in the commercial and for-hire South Atlantic snapper grouper fishing industries. All directly regulated businesses have been determined, for the purpose of this analysis, to be small entities. Based on this information, the proposed regulatory action is expected to affect a substantial number of small businesses.

Significant economic effects

The outcome of "significant economic impact" can be ascertained by examining two factors: disproportionality and profitability.

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

All entities directly regulated by this regulatory action have been determined to be small entities. Thus, the issue of disproportionality does not arise in the present case.

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

Allowing federally permitted businesses (vessels) in the commercial and for-hire South Atlantic snapper grouper fishing industries to use a collapsible hoop net or sea turtle hoist rather than a dip net to handle incidentally captured sea turtles is expected to reduce the cost of complying with the associated regulatory requirement by about $40 per business (vessel) on average. However, when this gear is replaced, typically about once every 7 years, the average cost savings to each business (vessel) is about $6 per year and thus is expected to only minimally increase these businesses' profitability.

Allowing federally permitted businesses (vessels) in the commercial and for-hire South Atlantic snapper grouper fishing industries to use a new dehooking device to remove an externally embedded hook from a sea turtle is not expected to change the cost of complying with the associated regulatory requirement as its cost is within the range of the currently allowed dehooking devices. Thus, NMFS does not expect the profitability of commercial and for-hire vessels to change as a result of allowing this new dehooking device.

Clarifying the dimensions or length requirements for several other sea turtle release devices in cases where the regulations currently use the word "approximately" to describe those requirements or are otherwise ambiguous is expected to aid fishermen in the commercial and for-hire South Atlantic snapper grouper fishing industries with compliance, as well as aid law enforcement efforts, though some clarifications would slightly reduce flexibility. As such, these clarifications are expected to reduce the risk of these businesses incurring a fine or other penalty for unintentional non-compliance with the requirements, and thus would generally be expected to reduce the costs of complying with those requirements.

For example, allowing federally permitted vessels in the commercial and for-hire South Atlantic snapper grouper fishing industries to use long-nose or needle-nose pliers with an overall length of 11 inches (28 cm) or greater, rather than "approximately" 12 inches (30 cm), is expected to reduce the cost of complying with the associated regulatory requirement for at least some of these businesses. Due to the ambiguity of the current length requirement, as well as the limited market availability of pliers with an approximate length of 12 inches (30 cm), it has been difficult for some vessel owners to find pliers that clearly comply with the current regulation. As a result, some of these owners currently use pliers that have an overall length of 11 inches (28

cm). Thus, the proposed regulatory change would eliminate the risk of vessel owners that currently use pliers with an overall length of 11 inches (28 cm) from potentially being found non-compliant with the current regulation and having to purchase new pliers, which cost around $10, that comply with the current regulation.

In addition, modifying the required length for approved monofilament line cutters from "approximately" 7.5 inches (19 cm) in length to a minimum of 6 inches (15 cm) in length would allow federally permitted vessels in the commercial and for-hire South Atlantic snapper grouper fishing industries to use monofilament line cutters as small as 6 inches (15 cm) in length. Monofilament line cutters 6 inches (15 cm) in length and longer are commonly available in the market. The cost of monofilament line cutters ranges from $15 to $66 (K. O'Donnell, pers. comm.), depending on the material and features. Thus, the proposed regulatory change would eliminate the risk of vessel owners currently using monofilament line cutters 6 inches (15 cm) in length from potentially being found non-compliant with the current regulation and having to purchase new monofilament line cutters that comply with the current regulations.

Although federally permitted vessel owners are expected to be able to meet the clarified dimension and length requirements in this proposed rule without purchasing new gear, it is possible that a few may incur costs to replace gear that would be non-compliant. For example, though unlikely, it is possible that some commercial and for-hire fishing vessel owners could be using monofilament line cutters less than 6 inches (15 cm) in length (e.g., 5.5 inches (14 cm) in length) and consider this to be compliant with the current "approximately" 7.5-inch (19-cm) requirement. These vessel owners would have to purchase new monofilament line cutters and incur the associated cost. However, NMFS expects few if any commercial or for-hire fishing vessel owners to consider a length more than 25 percent less than "approximately" 7.5 inches (19 cm) in length as compliant with the current requirement. Thus, the potential costs resulting from this remote possibility are expected to be minimal if not zero.

Modifying the Snapper Grouper Fishery Management Plan framework procedure to include changes to release gear requirements through the abbreviated framework process is an administrative action that does not alter any requirements that directly regulate federally permitted vessels in the commercial and for-hire South Atlantic snapper grouper fishing industries. Therefore, this action is not expected to affect the profitability of any businesses that possess these permits.

As a result of the information above, a significant reduction in profits for a substantial number of small entities is not expected as a result of the proposed regulatory action.

3.7 Description of significant alternatives to the proposed action and discussion of how the alternatives attempt to minimize economic impacts on small entities

This proposed regulatory action, if implemented, is not expected to reduce the profits of any small businesses directly regulated by this action. As a result, the issue of significant alternatives is not relevant.

Chapter 4. References

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Appendix A. Sea Turtle Release Gear Requirements

Table A1. Sea turtle release gear required for vessels with a federal commercial and/or charter vessel/headboat permit for South Atlantic snapper grouper and with a freeboard height of 4 ft or less.

Required Item	Example Model(s) Meeting Current Design Standards
Dip net (handle length must be 6 ft or 150% of freeboard height*, whichever is greater)	Dip nets meeting requirements available at Bluewater Tackle; Howell Tackle; Fisherman's Ideal Supply House; Half Hitch; Hi-Liner Fishing Gear & Tackle; SNL Corp; etc.
Cushion or Support Device	A standard automobile tire; boat cushion; or any other comparable cushioned and elevated surface; device must be appropriately sized to fully support a range of sea turtle sizes.
Short-Handled Dehooker for Internal Hooks**	17-in Bite Block Deep-Hooked (Sea Turtle) pigtail ARC Dehooker; NOAA/Chainlink Dehooker
Short-Handled Dehooker for External Hooks	17-in Bite Block Deep-Hooked (Sea Turtle) pigtail ARC Dehooker; NOAA/Chainlink Dehooker; ARC Short-handled J-Style Dehooker; Scotty's Dehooker; Short-handled NOAA/Cylinder Dehooker
Long-nose or Needle-nose Pliers	12-in S.S. NuMark Model #030 281 109 871, Offshore Angler® Stainless Longreach Pliers Model #38-481-759-00, or Pittsburgh® 15-in Long Nose Locking Pliers
Bolt Cutter	H.K. Porter Model 1490 AC
Monofilament Line Cutter	Jinkai Model MC-T and Model MC-A; Fisherman's Ideal Supply House and SNL Corp. monofilament line cutter models 1278 and CM100; Momoi Anvils mono cutters, serrated mono cutters, and scissor style mono cutters; Fiskars Multi-purpose cutter
	At least Two (2) Types of the following Mouth Openers and Mouth Gags
Block of Hard Wood	Any block of hard wood or long-handled hard wood wire brush with the bristles removed (e.g., Olympia Tools Model 974174)
Set of (3) Canine Mouth Gags	Jorvet Model 4160, 4162, and 4164
Set of (2) Sturdy Dog Chew Bones	Nylabone©, Gumabone©, or Galileo© (trademarks owned by T. F. H. Publications, Inc.)
Set of (2) Rope Loops Covered with Protective Tubing	Any set of (2) rope loops covered with protected tubing meeting design standards
Hank of Rope	Any size soft braided or wrapped nylon rope is acceptable, provided it creates a hank of rope approximately 2–4 in thickness
Set of (4) PVC Splice Couplings	A set of (4) Standard Schedule 40 PVC splice couplings (1 in, 1.25 in, 1.5 in, and 2 in)

Required Item	Example Model(s) Meeting Current Design Standards
Large Avian Oral Speculum	Avian oral speculum set from Veterinary Specialty Products; Jorvet Model J-51z; and Krusse Model 273117; Large macaw model J0051Z from Patterson Veterinary.

Disclaimer: This table is meant to help fishermen comply with sea turtle release measures contained in regulations published in the *Federal Register* [76 FR 82183] on December 30, 2011, for the South Atlantic, and 71 FR 45428 published on August 9, 2006, for the Gulf of Mexico. All sea turtle release gear must meet the specific requirements in Appendix F to Part 622.

*Freeboard is defined as the working distance between the top rail of the gunwale to the water's surface and will vary based on the vessel design.

**Only one short-handled dehooker is required on board if the approved short-handled dehooker is designed to remove both internal and external hooks.

Table A2. Sea turtle release gear required for vessels with commercial and/or charter vessel/headboats with a federal snapper grouper permit(s) and a freeboard height of greater than 4 ft.

Required Item	Example Model(s) Meeting Current Design Standards
Long-Handled Line Cutter (6 ft or 150% of freeboard height, whichever is greater)	NOAA/LaForce Line Cutter or NOAA/Arceneaux Line Clipper
Long-Handled (6 ft or 150% of freeboard height, whichever is greater) Dehooker for Internal Hooks*	ARC 6' Pole Big Game (Pigtail) Dehooker; ARC 8' and 12' Pole Breakdown Big Game (Pigtail) Dehooker; Long-handled NOAA/Chainlink Dehooker
Long-Handled (6 ft or 150% of freeboard height, whichever is greater) Dehooker for External Hooks*	ARC 6'Pole Big Game (Pigtail) Dehooker; ARC 8' and 12' Pole Breakdown Big Game (Pigtail) Dehooker; Long-handled J-Style Dehooker or "Flip Stick"; Long-handled NOAA/Cylinder Dehooker; Long-handled NOAA/Chainlink Dehooker
Long-handled Device to pull an ''Inverted V'' (6 ft (1.83 m) or 150% of freeboard height, whichever is greater)	Long-handled J-Style Dehooker or "Flip Stick"; Any standard boat hook (e.g., Davis Telescoping Boat Hook to 96" Model 85002A); or Any standard fishing gaff (e.g., West Marine # F6H5 Hook and # F6-006 Handle)
Dip net (handle length must be 6 ft or 150% of freeboard height, whichever is greater)	Dip nets meeting requirements available at Bluewater Tackle; Howell Tackle; Fishermans Ideal Supply House; Half Hitch; Hi-Liner Fishing Gear & Tackle; SNL Corp; etc.
Cushion or Support Device	A standard automobile tire; boat cushion; or any other comparable cushioned and elevated surface; device must be appropriately sized to fully support a range of sea turtle sizes
Short-Handled Dehooker for Internal Hooks*	17-in Bite Block Deep-Hooked (Sea Turtle) pigtail ARC Dehooker; NOAA/Chainlink Dehooker
Short-Handled Dehooker for External Hooks	17-in Bite Block Deep-Hooked (Sea Turtle) pigtail ARC Dehooker; NOAA/Chainlink Dehooker; ARC Short-handled J-Style Dehooker; Scotty's Dehooker; or Short-handled NOAA/Cylinder Dehooker
Long-nose or Needle-nose Pliers	12-in S.S. NuMark Model #030 281 109 871, Offshore Angler® Stainless Longreach Pliers Model #38-481-759-00, or Pittsburgh® 15-in Long Nose Locking Pliers

Required Item	Example Model(s) Meeting Current Design Standards
Bolt Cutter	H.K. Porter Model 1490 AC
Monofilament Line Cutter	Jinkai Model MC-T; Fisherman's Ideal Supply House and SNL Corp. monofilament line cutter models 1278 and CM100; Momoi Anvils mono cutters, serrated mono cutters, and scissor style mono cutters; Fiskars Multi-purpose cutter
	At least Two (2) Types of the following Mouth Openers and Mouth Gags
Block of Hard Wood	Any block of hard wood or long-handled hard wood wire brush with the bristles removed (e.g., Olympia Tools Model 974174)
Set of (3) Canine Mouth Gags	Jorvet Model 4160, 4162, and 4164
Set of (2) Sturdy Dog Chew Bones	Nylabone©, Gumabone©, or Galileo© (trademarks owned by T. F. H. Publications, Inc)
Set of (2) Rope Loops Covered with Protected Tubing	Any set of (2) rope loops covered with protected tubing meeting design standards
Hank of Rope	Any size soft braided or wrapped nylon rope is acceptable, provided it creates a hank of rope approximately 2–4 in thickness
Set of (4) PVC Splice Couplings	A set of (4) Standard Schedule 40 PVC splice couplings (1 in, 1.25 in, 1.5 in, and 2 in)
Large Avian Oral Speculum	Avian oral speculum set from Veterinary Specialty Products; Jorvet Model J-51z; and Krusse Model 273117; Large macaw model J0051Z from Patterson Veterinary.

Disclaimer: This table is meant to help fishermen comply with sea turtle release measures contained in regulations published in the *Federal Register* [76 FR 82183] on December 30, 2011, for the South Atlantic, and 71 FR 45428 published on August 9, 2006, for the Gulf of Mexico. All sea turtle release gear must meet the specific requirements in Appendix F to Part 622.

*Freeboard is defined as the working distance between the top rail of the gunwale to the water's surface and will vary based on the vessel design.

**Only one short-handled dehooker and one long-handled dehooker is required on board if the approved short-handled and long-handled dehookers are designed to remove both internal and external hooks.

Appendix B. Examples of Approved Sea Turtle Release Gear

Table B1. Sea turtle release gear options for vessels with a federal commercial and/or charter vessel/headboat South Atlantic snapper grouper permit(s) that will be allowed once this Amendment is implemented.

New Gear	Where to Get It*
Collapsible Hoop Net	• Hillmans Seafood Netshop 281-339-2897 • Can be self-made
Sea Turtle Hoist	• Self-made at this time
New Short-handled Dehooker for External Hooks	• https://www.amazon.com/Baker-HXSS-Stainless-X-Heavy-HooKouT/dp/B01BOOC6W0/ref=pd_lpo_vtph_200_tr_img_2?_encoding=UTF8&psc=1&refRID=20C2JM8TF82JGHD9EAKN • http://www.fishingtackleunlimited.com/fish-hook-extractor-long • https://www.fishingheadquarters.net/hookremovers.html • https://dogfishtacklecompany.com/products/angler-tech-fish-hook-extractor?variant=33773794636 • https://dogfishtacklecompany.com/products/angler-tech-fish-hook-extractor?variant=33820293004
11” or larger Long-nose or Needle-nose Pliers	• https://www.basspro.com/shop/en/boone-pliers • https://www.harborfreight.com/11-inch-long-reach-needlenose-pliers-with-straight-jaws-39538.html • https://www.harborfreight.com/11-inch-90-angle-long-reach-pliers-39539.html • https://www.harborfreight.com/11-inch-long-reach-needlenose-pliers-with-45-offset-jaws-39537.html
6” or larger Monofilament Line Cutters	• https://www.tackledirect.com/jinkaimct.html • https://www.alariobros.com/protacklemonofilamentcutter1278.aspx • https://snlcorp.com/SNL/Tools/Cuttingtools.aspx
10x0.75x0.75 Block of Hard Wood	• Any hardware supply store

*Some links may need to be copied and pasted in your browser.

Table B2. Sea turtle release gear required for all vessels with a federal commercial and/or charter vessel/headboat federal South Atlantic snapper grouper permit(s).

Required Item	Where to Get It
Dip net (handle length must be 6 ft or 150% of freeboard height)	• Bluewater Tackle • Howell Tackle • Fishermans Ideal Supply House • Hi-Liner Tackle
Cushioned Support Device	• https://www.basspro.com/shop/en/type-iv-flotation-cushion • https://www.dickssportinggoods.com/p/dbx-floating-throw-cushion-18dbxudbxfltngthrwsr/18dbxudbxfltngthrwsr
Short-Handled Dehooker for Internal Hooks	• https://dehooker4arc.com/store/product.cfm/mode/details/id/408/17-bite-block-deep-hooked-sea-turtle-dehooker
Short-Handled Dehooker for External Hooks	• https://dehooker4arc.com/store/product.cfm/mode/details/id/426/commercial-16-j-style-dehooker • https://dehooker4arc.com/store/product.cfm/mode/details/id/406/arc-24-handheld-game-model-dehooker-perfect-for-larger-stripers
12” or larger Long-nose or Needle-nose Pliers	• https://www.harborfreight.com/16-inch-long-reach-pliers-set-38598.html
Bolt Cutter	• https://www.amazon.com/HK-Porter-1490MC-Industrial-Center/dp/B00002NB85
Monofilament Line Cutter	• https://www.tackledirect.com/jinkaimct.html • https://www.tackledirect.com/jinkaimca.html • http://fishsaltwatertackle.com/shop/1278-mono-cutter/ • http://snlcorp.com/SNL/Tools/Cuttingtools.aspx • http://fishsaltwatertackle.com/shop/cm100-stainless-mono-cutter/ • http://snlcorp.com/SNL/Tools/Cuttingtools.aspx • http://hiliner.com/product-catalog/cutters/momoi-anvil-style/ • http://hiliner.com/product-catalog/cutters/momoi-serrated/ • http://hiliner.com/product-catalog/cutters/momoi-scissor-style/
Block of Hard Wood	• Any hardware supply store
Set of (3) Canine Mouth Gags	• https://www.jorvet.com/product/canine-mouth-gag-large/ • https://www.jorvet.com/product/canine-mouth-gag-medium/ • https://www.jorvet.com/product/canine-mouth-gag-small/
Set of (2) Sturdy Dog Chew Bones	• https://www.petsmart.com/dog/toys/interactive-toys/nylabone-durachew-bone-chew-dog-toy-11077.html • https://www.petco.com/shop/en/petcostore/product/nylabone-souper-dura-chew-chicken-bone • https://www.petsupermarket.com/dog/dog-toys/nylabone-giant/
Set of (2) Rope Loops Covered with Protective Tubing	• Any hardware supply store

Required Item	Where to Get It
Hank of Rope	• Any hardware supply store
Set of (4) PVC Splice Couplings	• Any hardware supply store
Large Avian Oral Speculum	• https://www.kruuse.com/en/ecom/Konsult_Diagnostik/Spekulum_fugle/prod_273117.aspx • https://www.pattersonvet.com/ProductItem/078023455

Table B3. Additional sea turtle release gear required for vessels with a federal commercial and/or charter vessel/headboat South Atlantic snapper grouper permit(s) and a freeboard height of greater than 4 ft.

Required Item	Where to Get It
Long-Handled Line Cutter (6 ft or 150% of freeboard height)	• https://dehooker4arc.com/store/product.cfm/mode/details/id/417/4-noaa-laforce-middle-section-extended-reach • Hi -Liner Tackle • Fisherman's Ideal Supply House
Long-Handled (6 ft or 150% of freeboard height) Dehooker for Internal Hooks	• https://dehooker4arc.com/store/product.cfm/mode/details/id/409/arc-6-pole-big-game-dehooker-perfect-for-billfish • https://dehooker4arc.com/store/product.cfm/mode/details/id/410/arc-8-pole-breakdown-2-4-sections-big-game-dehooker • https://dehooker4arc.com/store/product.cfm/mode/details/id/411/arc-12-pole-breakdown-2-6-sections-big-game-dehooker
Long-Handled (6 ft or 150% of freeboard height) Dehooker for External Hooks	• https://dehooker4arc.com/store/product.cfm/mode/details/id/429/commercial-6-pole-j-style-dehooker
Long-handled Device to pull an ''Inverted V'' (6 ft (1.83 m) or 150% of freeboard height)	• https://www.westmarine.com/buy/davis-instruments--telescoping-3-section-boat-hook--4545216?recordNum=2 • https://www.westmarine.com/buy/aftco--6-taper-tip-aluminum-gaff--14535546?cm_sp=Onsite-Recs-_-DY-_-Search-Results-Test • https://www.basspro.com/shop/en/deluxe-telescopic-boat-hooks • https://www.basspro.com/shop/en/offshore-angler-ocean-master-carbon-fiber-gaff

Appendix C. Snapper Grouper Framework Procedure

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

Procedure for Specifications:

2. At times determined by the SEDAR Steering Committee, and in consultation with the Council and NMFS Southeast Regional Office (SERO), stock assessments or assessment updates will be conducted under the SEDAR process for stocks or stock complexes managed under the Snapper Grouper FMP. Each SEDAR stock assessment or assessment update will: a) assess to the extent possible the current biomass, biomass proxy, or SPR levels for each stock; b) estimate fishing mortality (F) in relation to F_{MSY} (MFMT) and F_{OY}; c) determine the overfishing limit (OFL); d) estimate other population parameters deemed appropriate; e) summarize statistics on the fishery for each stock or stock complex; f) specify the geographical variations in stock abundance, mortality recruitment, and age of entry into the fishery for each stock or stock complex; and g) develop estimates of B_{MSY}.

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

   For overfished stocks, the recommended range of ABCs shall be calculated so as to end overfishing and achieve snapper grouper population levels at or above B_{MSY} within the rebuilding periods specified by the Council and approved by NOAA Fisheries Service. The SEDAR report or SSC will recommend rebuilding periods based on the provisions of the National Standard Guidelines, including generation times for the affected stocks. Generation times are to be specified by the stock assessment panel based on the biological characteristics of the individual stocks. The report will recommend to the Council a B_{MSY} level and a MSST from B_{MSY}. The report may also recommend more

appropriate estimates of F_{MSY} for any stock. The report may also recommend more appropriate levels for the MSY proxy, OY, the overfishing threshold (MFMT), and overfished threshold (MSST). For stock or stock complexes where data are inadequate to compute an OFL and recommended ABC range, the SSC will use other available information as a guide in providing their best estimate of an OFL corresponding to MFMT and ABC range that should result in not exceeding the MFMT.

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

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

6. The Council, in selecting an ACL, ACT, AM, and a stock restoration time period, if necessary, for each stock or stock complex for which an ABC has been identified, will, in addition to taking into consideration the recommendations and information provided for in paragraphs 1, 2, 3, and 4, utilize the following criteria:
    a. Set ACL at or below the ABC specified by the SSC or set a series of annual ACLs at or below the projected ABCs in order to account for management uncertainty. If the Council sets ACL equal to ABC, and ABC has been set equal to OFL, the Council will provide its rationale as to why it by it believes that level of fishing will not exceed MFMT.

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

    c. Set ACTs or sector ACTs at or below ACLs and in accordance with the provision of the AM for that stock. The ACT is the management target that accounts for management uncertainty in controlling the actual catch at or below the ACL. If an ACL is exceeded repeatedly, the Council has the option to establish an ACT if

one does not already exist for a particular stock and adjust or establish AMs for that stock as well.

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

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

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

10. Adjustments to ABCs, ACLs, and ACTs according to the existing ABC Control Rule(s) and formulas for specifying ACLs and ACTs that have been approved by the Council and that were implemented in a fishery management plan amendment to the FMP. This abbreviated process is authorized as follows:
    a. Following the Scientific and Statistical Committee's (SSC's) review of the stock assessment, the Council will determine if changes are needed to ABC, ACL, and/or ACT and will so advise the RA.

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

11. The NMFS Regional Administrator is authorized, through notice action, to conduct the following activities.
    a. Close the commercial fishery of a snapper grouper species or species group that has a commercial quota or sub-quota at such time as projected to be necessary to prevent the commercial sector form exceeding its sector ACL or ACT for the remainder of the fishing year or sub-quota season.
    b. Close the recreational fishery of a snapper grouper species or species group at such time as projected to be necessary to prevent recreational sector ACLs or ACTs from being exceeded.
    c. Reopen a commercial or recreational season that had been prematurely closed if needed to assure that a sector ACL or ACT can be reached.

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

concerning the action that could be taken by the Council to conform the amendment to the requirements of applicable law.

II. Establish a procedure to allow for rapid modification to definitions of Essential Fish Habitat (EFH); establishment of new, or modification of existing, Essential Fish Habitat-Habitat Areas of Particular Concern (EFH-HAPCs); and establishment of new, or modification of existing, Coral-Habitat Areas of Particular Concern:

This adjustment procedure will allow the Council to add or modify measures through a streamlined public review process. As such, measures that have been identified could be implemented or adjusted at any time during the year. The process is as follows:

1. The Council will call upon the Habitat and Environmental Protection Advisory Panel (Panel) for EFH-related actions and the Coral Advisory Panel for Coral-HAPC related actions. The Habitat and/or Coral Advisory Panel(s) will present a report of their assessment and recommendations to the Council.

2. The Council may take framework action one or more times during a year based on need. Such action(s) may come from the Panel report or the Council may take action based on issues/problems/information that surface separate from the Panel. The steps are as follows:
    A. Habitat or Coral Advisory Panel Report - The Council will consider the report and recommendations of the Panel and hold public hearings at a time and place of the Council's choosing to discuss the Panel's report. The Council will consult the Advisory Panel(s) and the Scientific and Statistical Committee to review the Panel's report and provide advice prior to taking final action. After receiving public input, the Council will make findings on the need for changes.
    B. Information separate from Panel Report - The Council will consider information that surfaces separate from the Panel. Council staff will compile the information and analyze the impacts of likely alternatives to address the particular situation. The Council staff report will be presented to the Council. A public hearing will be held at the time and place where the Council considers the Council staff report. The Council will consult the Advisory Panel(s) and the Scientific and Statistical Committee to review the staff report and provide advice prior to taking final action. After receiving public input, the Council will make findings on the need for changes.

3. If the Council determines that an addition or adjustment (e.g., in a species or species complex definition of EFH or EFH-HAPCs or a new EFH-HAPC is proposed for a species or species complex) to EFH, EFH-HAPCs, or Coral-HAPCs is necessary to meet the goals and objectives of the Habitat Plan, it will recommend, develop, and analyze appropriate action over the span of at least two Council meetings. The Council will provide the public with:

    A. Advance notice of the availability of the recommendation.
    B. The appropriate justifications, and biological, economic, and social analyses.

C. An opportunity to comment on the proposed adjustments prior to and at the second Council meeting.

4. After developing management actions and receiving public testimony, the Council will then submit the recommendation to the Regional Administrator. The Council's recommendation to the Regional Administrator must include supporting rationale, an analysis of impacts, and a recommendation to the Regional Administrator on whether to publish the management measure(s) as a final rule.

5. If the Council recommends that the management measures should be published as a final rule, the Council must consider at least the following factors and provide support and analysis for each factor considered:

   A. Whether the availability of data on which the recommended management measures are based allows for adequate time to publish a proposed rule.
   B. Whether regulations have to be in place for an entire harvest/fishing season.
   C. Whether there has been adequate notice and opportunity for participation by the public and members of the affected industry in the development of the Council's recommended management measures.
   D. Whether there is an immediate need to protect the resource.
   E. Whether there will be a continuing evaluation of management measures adopted following their promulgation as a final rule.

6. If, after reviewing the Council's recommendation and supporting information based on the FMP and the administrative record:

   A. The Regional Administrator concurs with the Council's recommended management measures and determines that the recommended management measures may be published as a final rule then the action will be published in the Federal Register as a final rule; or
   B. The Regional Administrator concurs with the Council's recommendation and determines that the recommended measures should be published first as a proposed rule, the action will be published as a proposed rule in the Federal Register. After additional public comment, if the Regional Administrator concurs with the Council recommendation, the action will be published as a final rule in the Federal Register; or
   C. The Regional Administrator does not concur, the Council will be notified, in writing, of the reason for non-concurrence and recommendations to address those concerns.

7. Appropriate adjustments that may be implemented by the Secretary by proposed and final rules in the Federal Register are:

   A. Definition of or modification of a current definition of Essential Fish Habitat for a managed species or species complex.
   B. Establishment of or modification of EFH-HAPCs for managed species or species complex.
   C. Establishment of or modifications of Coral-HAPCs.

D. Description, identification, and regulations of fishing activities to protect EFH and EFH-HAPCs.
E. Management measures to reduce or eliminate the adverse effects of fishing activities or fishing gear on EFH or EFH-HAPCs.
F. Regulations of EFH-HAPCs.

From the Code of Federal Regulations (6/28/17):

§622.194 Adjustment of management measures.

In accordance with the framework procedures of the FMP for the Snapper-Grouper Fishery of the South Atlantic Region, the RA may establish or modify the following items specified in paragraph (a) of this section for South Atlantic snapper-grouper and wreckfish.

(a) Biomass levels, age-structured analyses, target dates for rebuilding overfished species, MSY (or proxy), OY, ABC, TAC, quotas (including a quota of zero), annual catch limits (ACLs), annual catch targets (ACTs), AMs, maximum fishing mortality threshold (MFMT), minimum stock size threshold (MSST), trip limits, bag limits, size limits, gear restrictions (ranging from regulation to complete prohibition), seasonal or area closures, fishing year, rebuilding plans, definitions of essential fish habitat, essential fish habitat, essential fish habitat HAPCs or Coral HAPCs, and restrictions on gear and fishing activities applicable in essential fish habitat and essential fish habitat HAPCs.

Appendix D. Fishery Impact Statement (FIS)

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

Actions Contained in Amendment 42 to the Snapper Grouper FMP (Amendment 42)

Amendment 42 proposes changes to sea turtle handling and release requirements for owners and operators of vessels with federal South Atlantic commercial or charter vessel/headboat snapper grouper permits and modifications to the Snapper Grouper FMP framework procedure. The first action would allow three additional sea turtle release gear types, approved by the National Marine Fisheries Service (NMFS) Southeast Fisheries Science Center (SEFSC), for use in handling and releasing incidentally caught sea turtles when fishing for snapper grouper species. There are also several clarifications that would be made by removing the word "approximately" from the regulations for currently required release gear and establishing a range or minimum requirement. The second action would modify the Snapper Grouper FMP framework procedure to allow for future changes to release gear requirements and handling protocols for sea turtles and other protected resources.

Assessment of Biological Effects

The action to allow three additional sea turtle release gear types is anticipated to assist with compliance and aid in the safe release of sea turtles and other protected species, thus providing positive biological effects. The increased compliance would result from fishermen being able to select the gear which is most appropriate for their vessel and fishing method to safely handle and release sea turtles, and therefore, result in an indirect biological benefit. Additionally, by clearly defining the release gear, fishermen are more likely to have the proper gear on board if an interaction occurs. This will result in positive indirect biological benefits.

The action to modify the snapper grouper framework is primarily an administrative action, and would only have indirect impacts on the biological environment, all of which would be expected to be beneficial in that they would facilitate effective release of incidentally captured protected species.

Assessment of Economic Effects

Allowing additional gear for sea turtle release and clarifying dimension requirements for currently required release gear would result in direct economic effects for commercial vessels

and charter vessels/headboats with federal snapper grouper permits. In the case of a vessel owner purchasing release gear for the first time (such as with a new vessel) or replacement release gear for broken or otherwise unusable gear, the owner would examine the net economic benefits of the three new release gear types in relation to the current, available gear. The net economic benefits would include not only the cost of that particular device, but also any added benefits, such as saved space on board due to the collapsible nature of the collapsible hoop net.

For replacement of a dip net, vessel owners may expect estimated cost reductions from $15 to $65, or about $40 on average per vessel, based on self-construction costs of the collapsible hoop net and PVC small hoist. Using the estimated 2,502 vessels that may be affected by modifications to sea turtle release gear requirements, a total cost savings of $100,080 may occur, assuming all affected vessels will eventually need replacement dip net gear and go with the lower cost options. This estimate of total cost savings would occur over several years rather than annually. Assuming that dipnet gear must be replaced at least once every 10 years, the quantified estimated cost savings that would result from the modifications to sea turtle release gear requirements is $10,008 annually.

Regarding the clarification of dimension requirements for currently required release gear, regulations currently state that, for design standards, needle-nose or long-nose pliers "should be approximately 12 inches in length" and this amendment would set the minimum length at 11 inches. Setting a specific minimum length limit removes ambiguity for fishermen in terms of compliance and thereby reduces risk of a non-compliance fine. As a result, allowing of the proposed additional release gear and clarifying dimension requirements would be expected to generate net economic benefits. There may be some additional costs associated with purchasing new gear if fishermen did not already have gear that was in compliance with the regulations.

If the regulations are modified to allow for the use of the three proposed gear types for sea turtle release, then as an indirect effect, producers of the proposed gear as well as producers of currently allowed gear may see some changes over time in the demand for their specific brand of product, as vessel owners take into consideration the net economic benefits already mentioned when deciding whether to switch gear. Thus, producers of gear that would provide a net economic benefit to vessels owners could be expected to see an increase in demand for their specific gear, whereas producers of gear that would not provide a net economic benefit to vessels owners could be expected to see a decrease in demand for their specific gear. Since allowing additional gear options for sea turtle release would not be expected to impact the number of vessels using sea turtle release gear, no impacts would be expected to the overall demand for this category of products.

Assessment of Social Effects

Allowing fishermen to carry and use the three new release gear types is expected to result in small, direct social benefits to fishing businesses and communities by providing additional flexibility. Allowing more compact gear to be used addresses stakeholder concerns regarding space for release gear on their vessels. Snapper grouper commercial and charter vessel/headboat fishermen are already required to have release gear on board that serves the same function as the proposed new types of release gear and would not be required to purchase or construct the new

types of release gear, thus avoiding any negative social effects associated with additional business expenses. Clarifying the dimension requirements for current release gear and aligning requirements for South Atlantic snapper grouper commercial and for-hire vessels with those for Gulf of Mexico reef fish commercial and for-hire vessels is anticipated to result in positive social effects. Reducing ambiguity and creating consistency in the regulations by removing language like "approximately" and replacing it with specific size limits will aid fishermen when purchasing or replacing release gear and will aid law enforcement in determining release gear compliance again resulting in small but positive social effects to fishing businesses and communities.

Modifying the snapper grouper framework procedure to allow for release gear and handling protocols to be modified through an abbreviated framework procedure is expected to result in small, but positive social effects. Quick adoption of new types of release gear is expected to provide greater benefit and flexibility to fishermen.

Assessment of Effects on Safety as Sea

Amendment 42 is not expected to result in direct impacts to safety at sea.