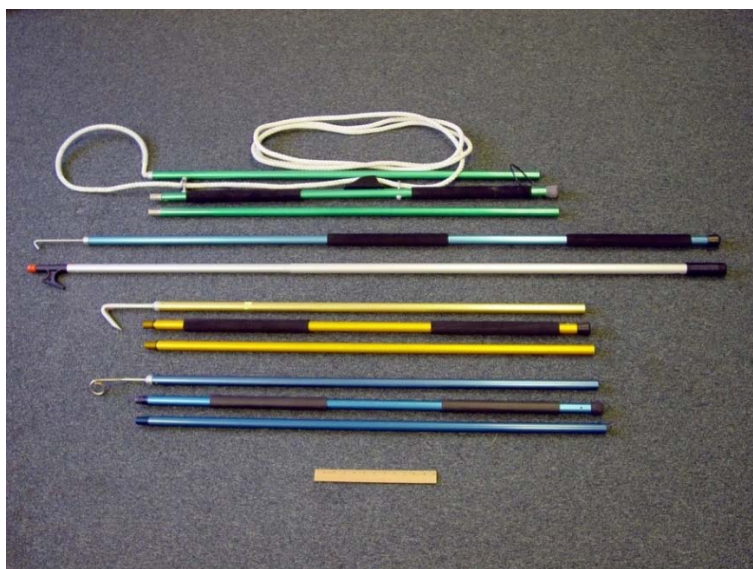


Modifications to the Sea Turtle Release Gear and Protocol for the Reef Fish Fishery



Draft Options Paper

October 2017



This is a publication of the Gulf of Mexico Fishery Management Council Pursuant to National Oceanic and Atmospheric Administration Award No. NA15NMF44100111.

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COVER SHEET

Name of Action

Draft Options - Modifications to the Sea Turtle Release Gear and Protocol for the Reef Fish Fishery

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Type of Action

<input type="checkbox"/> Administrative	<input type="checkbox"/> Legislative
<input checked="" type="checkbox"/> Draft	<input type="checkbox"/> Final

ABBREVIATIONS USED IN THIS DOCUMENT

ABC	acceptable biological catch
ACL	annual catch limit
ACT	annual catch target
BiOp	Biological Opinion
Council	Gulf of Mexico Fishery Management Council
EA	Environmental Assessment
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FMP	Fishery Management Plan
Gulf	Gulf of Mexico
HMS	Highly Migratory Species
IRFA	initial regulatory flexibility analysis
LAPP	limited access privilege program
MMPA	Marine Mammal Protection Act
MRFSS	Marine Recreational Fisheries Survey and Statistics
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
MSY	maximum sustainable yield
NOAA	National Oceanic and Atmospheric Administration
NMFS	National Marine Fisheries Service
OY	optimum yield
RA	Regional Administrator
RIR	regulatory impact review
SEFSC	Southeast Fisheries Science Center
SERO	Southeast Region Office

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CHAPTER 1. INTRODUCTION

1.1 Background

The Gulf of Mexico (Gulf) reef fish fishery is known to encounter endangered and threatened sea turtles and, less frequently, endangered smalltooth sawfish. Sea turtles are highly migratory and occur throughout the Gulf (Lutz and Musick 1997; Lutz et al. 2003, Spotila 2004). Adverse effects to these species may result from being hooked on or entangled in bottom longline and vertical line gear targeting reef fish. Sea turtles and sawfish can be injured or killed as a result of interacting with these gears.

The Endangered Species Act (ESA) requires that any federal agency proposing an action that may have an effect on an ESA-listed species such as issuing a permit or taking a direct action on essential fish habitat consult with the U.S. Fish and Wildlife Service or the National Marine Fisheries Service (NMFS) (i.e., consulting agencies). The agency proposing the action (known as the action agency) will commonly complete a biological assessment on potential effects to the species or its habitat and submit it to the regulatory agencies. The consulting agency then renders a Biological Opinion (BiOp) to the action agency making the proposal.

In February 2005, the NMFS Southeast Regional Office (SERO) issued a BiOp, in accordance with section 7 of the ESA that evaluated the impact of the reef fish fishery on endangered sea turtles and smalltooth sawfish (NMFS 2005). The BiOp concluded that the anticipated incidental take of sea turtles and smalltooth sawfish by the reef fish fishery was not likely to jeopardize their continued existence; however, it required that reasonable and prudent measures be taken to minimize stress and increase survival rates of any sea turtles and smalltooth sawfish taken in the reef fish fishery. At the time of the 2005 BiOp, the only reef fish regulation that specifically addressed bycatch of protected species was a prohibition of the use of entangling nets that was implemented in 1990 (GMFMC 1990). The BiOp specified that NMFS, in cooperation with the Gulf of Mexico Fishery Management Council (Council), must implement sea turtle bycatch release equipment requirements and sea turtle and smalltooth sawfish handling protocols and/or guidelines in the commercial and charter vessel/headboat sectors for those with a federal Gulf reef fish permit.

Biological Opinion (BiOp):

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 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.

In response to the 2005 BiOp, the Council developed Amendment 18A to the Reef Fish Fishery Management Plan (FMP) (Amendment 18A) to increase the likelihood of survival of released sea turtles and smalltooth sawfish caught incidentally by the reef fish fishery (GMFMC 2005). Amendment 18A implemented regulations that required vessels with federal commercial or charter/headboat permit for reef fish to possess a specific set of release gear (Appendix A), and comply with sea turtle and smalltooth sawfish release protocols and guidelines for proper care and release of incidentally caught sea turtles and sawfish (GMFMC 2005). In the Gulf, commercial and charter/headboat vessel reef fish 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” (hereafter referred to as Release Protocols). Vessel permit holders are also required to post inside the wheelhouse, or in an easily viewable area if no wheelhouse, sea turtle handling and release guidelines provided by NMFS available here: http://www.nmfs.noaa.gov/sfa/hms/compliance/workshops/protected_species_workshop/turtles/sea_turtle_handling_release_hookline.pdf.

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 ready for publication. In the pending update, three additional turtle release gear types were approved by the Southeast Fisheries Science Center (SEFSC) for use in handling and releasing incidentally caught sea turtles when fishing for reef fish. These sea turtle release gears include a collapsible hoop net (Figure 2.1.1), a small sea turtle hoist (Figure 2.1.2) and a new type of dehooking device (Figure 2.1.3). These new gears require less space on vessels but still provide the necessary functionality. However, these gears cannot be used by fishermen participating in the reef fish fishery until they are added to the regulations.

In addition to the Council considering the three new SEFSC approved release gears; this document also considers modifying the reef fish framework protocol, so that in the future the Council may more quickly modify sea turtle and other protected resources release gear and handling requirements. The framework procedure to the FMP was most recently updated in 2012 (GMFMC 2012), but it does not currently allow for changes in gear release requirements to be implemented via the framework process. Thus, an amendment to the FMP is required to make these changes. Incorporating a process to allow changes in sea turtle and other protected resources release gear and handling requirements to be implemented via the framework process could streamline management and provide additional flexibility to participants in the commercial and charter/headboat component of the reef fish fishery.

1.2 Purpose and Need

The purpose is to allow the use of three new sea turtle release gear types and streamline the processes for allowing reef fish permit holders to use additional sea turtle and other protected species release gear types and handling procedures after they are approved by the SEFSC.

The need is to provide flexibility to participants in the federal commercial and charter/headboat reef fish fishery in complying with regulations and 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.

1.3 History of Management

The **Reef Fish FMP** (with its associated environmental impact statement [EIS]) was implemented in November 1984. The original list of species included in the management unit consisted of snappers, groupers, and sea basses. A second list of species included in the fishery, but not in the management unit, was not considered to be comprised of target species because they were generally taken incidentally to the directed fishery for species in the management unit. Their inclusion in the Reef Fish FMP was for purposes of data collection, and their take was not regulated.

Amendment 1 (with its associated environmental assessment [EA], regulatory impact review [RIR], and initial regulatory flexibility analysis [IRFA] to the Reef Fish FMP, implemented in 1990, put a prohibition on the use of entangling nets due to the potential for entangling nets to ghost fish and kill non-targeted and protected species. This provided the only regulation in the Reef Fish FMP that specifically addressed safeguarding of protected species until the implementation of Amendment 18A.

Amendment 18A (with its associated EA, RIR, and IRFA), implemented in August 2006, required vessels with commercial or for-hire reef fish vessel permits to comply with Highly Migratory Species (HMS) pelagic longline sea turtle and smalltooth sawfish release protocols and to possess a specific set of release gear, along with adopting guidelines for the proper care for incidentally caught sawfish. The intended effect of the final rule was to reduce bycatch mortality of incidentally caught endangered sea turtles and smalltooth sawfish by the reef fish fishery.

Amendment 22 (with its associated EIS, RIR, and IRFA) implemented in May 2004, established bycatch reporting methodologies for the reef fish fishery. These included all reef fish permit holders, whether they are commercial or recreational for-hire, to report their bycatch; it also requested NMFS to develop an observer program for the reef fish fishery and enhance the Marine Recreational Fisheries Survey and Statistics (MRFSS) by including headboats within the same sampling methods utilized for charter vessels.

Amendment 31 (with associated EIS, RIR, and IRFA), implemented May 2010, specified that a longline endorsement would be required to fish east of Cape San Blas, Florida; restricted the use of bottom longline gear for reef fish in the eastern Gulf (east of 85° 30' W Longitude, near Cape San Blas, Florida); and restricted the number of hooks for vessels using bottom longline gear to harvest reef fish east of Cape San Blas, Florida. The intended effect of this final rule was to reduce hardshell sea turtle takes by the bottom longline component of the Gulf reef fish fishery. This amendment was developed when a 2008 observer report by the SEFSC estimated sea turtle takes by the commercial bottom longline component of the Gulf reef fish fishery exceeded the three-year anticipated take levels in the 2005 BiOp on the fishery (NMFS 2009).

CHAPTER 2. DRAFT MANAGEMENT ALTERNATIVES

Action 1 – Modify sea turtle release gear requirements for vessels with reef fish permits in the Gulf of Mexico (Gulf)

Alternative 1: No Action. Do not modify the regulations to allow the use of new approved sea turtle release gears for vessels with commercial or charter vessel/headboat Gulf reef fish permits.

Alternative 2: Modify the regulations for vessels with commercial or charter vessel/headboat Gulf reef fish permits to allow the use of the new collapsible hoop net, dehooking device, and small hoist to release incidentally hooked sea turtles.

Discussion:

This action allows the Gulf of Mexico Fishery Management Council (Council) to modify sea turtle release gear requirements for commercial and charter vessel/headboats with federal Gulf reef fish permits. The three proposed gears (collapsible hoop net, dehooking device, and small hoist) have been tested in the field, approved by the Southeast Fisheries Science Center (SEFSC), and are included in the pending publication of the 2015 Release Protocols (National Oceanic and Atmospheric Administration (NOAA) Technical Memorandum NMFS-SEFSC-580). Incidental capture in vertical line fisheries have the potential to injure or kill protected species. These release gears were designed to reduce the severity of injury and mortality rate of protected species if incidentally captured. The careful handling, gears, and release protocols are anticipated to result in the greatest post-release survival of the protected species (Ryder et al. 2006). Numerous workshops and educational opportunities for fishermen have been delivered across the Gulf as well as in the South Atlantic Fishery Management Council's jurisdiction.

Two alternatives are analyzed for this action and are considered a reasonable range since the primary goal of this action is for the Council to potentially add three new gears to the regulations in addition to the other sea turtle release gear types that are already required and vary by freeboard height (i.e., less than/equal to or greater than 4 feet). Since these three new gear types are not the only gears that industry may use to satisfy the regulatory requirements (Appendix A); this action can be limited to two alternatives, and is considered a reasonable range. Further, adding these gears to the regulations is only expected to result in positive impacts for fishermen and subsequently, protected resources, since more flexibility would be afforded to fishermen who now have the opportunity to use these more compact sea turtle release gears. This is ultimately anticipated to result in better compliance due to increased flexibility for fishermen that hold federal Gulf commercial and charter vessel/headboat reef fish permits.

Alternative 1 (No Action) would not modify the regulations to allow three new sea turtle release gears to be included in the regulations. This alternative would not provide additional flexibility to the fishermen with commercial and charter vessel/headboat reef fish permits in the Gulf. These new gears have been tested in the field and are based on user feedback from captains, crew members, and observers after numerous tests.

Alternative 2 would modify the federal regulations for commercial vessels and charter

vessels/headboats with federal Gulf reef fish permits to allow the use of a collapsible hoop net, small hoist, and dehooking device to release incidentally hooked sea turtles. Two of the new sea turtle release gears are a more compact collapsible hoop net (Figure 2.1.1) and a small sea turtle hoist (Figure 2.1.2). Both of these gears are used for bringing an incidentally captured sea turtle on board the fishing vessel to remove the hook and monofilaments line. The collapsible hoop net must meet the standards specified in the National Marine Fisheries Service (NMFS) regulations (capable of lifting 100 lbs with a minimum diameter of 31 inches and a minimum bag depth of 38 inches).



Figure 2.1.1. A collapsible hoop net that can be used on-board and subsequently release incidentally hooked sea turtles. Photo credit: NMFS-SEFSC.

The small sea turtle hoist (Figure 2.1.2) is recommended to bring sea turtles on board that cannot be boated using a traditional dip net. Generally, the small hoist is used on fishing vessels with a high freeboard or when space on the fishing vessel is limited. The proper use of this gear is outline in the 2015 Release Protocols (NOAA Technical Memorandum NMFS-SEFSC-580).



Figure 2.1.2. Example of small sea turtle hoist. Photo credit: World Wildlife Fund.

If a fishing hook cannot be removed via needle-nose pliers or bolt cutters, then a dehooker is recommended to be used (Figure 2.1.3). This gear is recommended for use when removing small lightly embedded hooks up to 10/0 in size. Although other dehookers are currently allowed this new release gear type is more appropriate for smaller hooks currently used in the reef fish fishery. Specifically, this dehooker can more easily remove a hook by twisting the hook out. The release protocol for this gear are outlined in the 2015 Release Protocols (NOAA Technical Memorandum NMFS-SEFSC-580).



Figure 2.1.3. Example of new sea turtle release gear ‘hookout’ to release incidentally hooked sea turtles. Photo credit: NMFS-SEFSC.

Action 2 – Modify the Reef Fish Framework Protocol

Alternative 1: No Action. Do not modify the reef fish framework procedure adopted through Reef Fish Amendment 38.

Alternative 2: Modify the reef fish 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 open framework actions. Release gear requirements and handling protocols that could be implemented or changed would include:

Option a: Release gear requirements for sea turtles and other protected resources

Option b: Handling requirements for sea turtles and other protected resources

Note: In Alternative 2, both Option a and Option b could be selected as preferred.

Discussion:

The Council currently has three different regulatory mechanisms for addressing fishery management issues. First, they may develop a fishery management plan or plan amendment to establish management measures. The amendment process can take one to three 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.

Only two alternatives are presented in this action. The goal is to adopt new options for gears that industry may use to satisfy regulatory requirements in a timelier manner and to reduce the burden associated with making future changes regarding sea turtle and other protected resources release gear and handling requirements. For this reason, only modifying the open framework utilizing the abbreviated documentation process is presented as an alternative to the no action because the open framework protocol utilizing the standard documentation process can at times take as long as a plan amendment. Utilizing the abbreviated framework procedure would allow changes to the release gear and handling requirements more timely for industry. Changes to release gear and handling requirements do not fit under a closed framework procedure, which is why that option was not presented.

Alternative 1 would retain the current reef fish framework procedure without any changes. This framework procedure was last modified in Reef Fish Amendment 38 (GMFMC 2012) and provides the Council and NMFS the flexibility to respond quickly to changes in the reef fish fishery. The framework has both open and closed components. The open components provide more policy discretion, whereas the closed components address more specific, well-defined circumstances. Measures that can be changed under the procedure are identified, as well as the appropriate process needed for each type of change. Under **Alternative 1**, changes to release gear and handling requirements for sea turtles and other protected resources would continue to

require full plan amendments, limiting the Council’s and NMFS ability to implement Southeast Fishery Science Center (SEFSC) approved release gears and handling requirements in a timely manner.

Alternative 2 would allow changes to release gear and handling requirements for sea turtles and other protected resources under the abbreviated documentation process of the open framework procedure (see highlighted portion of Section 2a of the Framework Procedure). Table 2.1.1 lists the types of release gear and handling requirements for sea turtles and other protected resources that would be included under **Alternative 2**, and an example of a change to these requirements that would be possible through the framework. It is important to note that gear restrictions are included in the standard process section of the open framework procedure. **Alternative 2** currently lists the ability to provide new options for gears that industry may use to satisfy regulatory requirements, and is not a restriction.

Table 2.1.1. Examples of release gear and handling requirements for sea turtles and other protected resources that could be changed through a framework action, rather than a plan amendment.

Type	Example
Release Gear	
Dehookers	Implement SEFSC modified, tested and approved devices
Dipnet	Implement SEFSC modified, tested and approved devices
Line Cutters	Implement SEFSC modified, tested and approved devices
Mouth Openers and Gags	Implement SEFSC newly approved devices
Handling	
Sea turtles	Changes to SEFSC requirements on the boarding of various size turtles if caught
Sea turtles	Changes to SEFSC requirements on the types of approved cushioned devices
Other protected resources	Changes to disentangling requirements when a large cetacean interaction occurs
Other protected resources	Changes to handling requirements when removing entangling gear from small cetaceans

Proposed Language for Updated Framework Procedure

This framework procedure provides standardized procedures for implementing management changes pursuant to the provisions of the fishery management plan (FMP). There are two basic processes, the open framework process and the closed framework process. Open frameworks address issues where there is more policy discretion in selecting among various management options developed to address an identified management issue, such as changing a size limit to reduce harvest. Closed frameworks address much more specific factual circumstances, where the FMP and implementing regulations identify specific actions to be taken in the event of specific facts occurring, such as closing a sector of a fishery after their quota has been harvested.

Open Framework:

1. Situations under which this framework procedure may be used to implement management changes include the following:

- a. A new stock assessment resulting in changes to the overfishing limit, acceptable biological catch, or other associated management parameters.
In such instances the Council may, as part of a proposed framework action, propose an annual catch limit (ACL) or series of ACLs and optionally an annual catch target (ACT) or series of ACTs, as well as any corresponding adjustments to maximum sustainable yield (MSY), optimum yield (OY), and related management parameters.
 - b. New information or circumstances.
The Council will, as part of a proposed framework action, identify the new information and provide rationale as to why this new information indicates that management measures should be changed.
 - c. Changes are required to comply with applicable law such as Magnuson-Stevens Fishery Management and Conservation Act (Magnuson-Stevens Act), Endangered Species Act (ESA), Marine Mammal Protection Act (MMPA), or are required as a result of a court order.
In such instances the Regional Administrator will notify the Council in writing of the issue and that action is required. If there is a legal deadline for taking action, the deadline will be included in the notification.
2. Open framework actions may be implemented in either of two ways, abbreviated documentation or standard documentation process.
- a. Abbreviated documentation process. Regulatory changes that may be categorized as routine or insignificant may be proposed in the form of a letter or memo from the Council to the Regional Administrator (RA) containing the proposed action and the relevant biological, social and economic information to support the action. If multiple actions are proposed, a finding that the actions are also routine or insignificant must also be included. If the RA concurs with the determination and approves the proposed action, the action will be implemented through publication of appropriate notification in the Federal Register. Actions that may be viewed as routine or insignificant include, among others:
 - i. Reporting and monitoring requirements,
 - ii. Permitting requirements,
 - iii. Gear marking requirements,
 - iv. Vessel marking requirements,
 - v. Restrictions relating to maintaining fish in a specific condition (whole condition, filleting, use as bait, etc.),
 - vi. Bag and possession limit changes of not more than 1 fish,
 - vii. Size limit changes of not more than 10% of the prior size limit,
 - viii. Vessel trip limit changes of not more than 10% of the prior trip limit,
 - ix. Closed seasons of not more than 10% of the overall open fishing season,
 - x. Species complex composition, including species subject to limited access privilege program (LAPP) management, requiring new share specification,
 - xi. Restricted areas (seasonal or year-round) affecting no more than a total of 100 square nautical miles,
 - xii. Respecification of ACL, ACT or quotas that had been previously approved as part of a series of ACLs, ACTs or quotas,
 - xiii. Specification of MSY, OY, and associated management parameters (such as

- overfished and overfishing definitions) where new values are calculated based on previously approved specifications,
- xiv. Gear restrictions, except those that result significant changes in the fishery, such as complete prohibitions on gear types,
 - xv. Quota changes of not more than 10%, or retention of a portion of an annual quota in anticipation of future regulatory changes during the same fishing year,
 - xvi. Release gear requirements for sea turtles and other protected resources,
 - xvii. Handling requirements for sea turtles and other protected resources
- b. Standard documentation process. Regulatory changes that do not qualify as routine or insignificant may be proposed in the form of a framework document with supporting analyses. Non-routine or significant actions that may be implemented under a framework action include:
- i. Specification of ACTs or sector ACTs, and modifications to ACL/ACT control rule,
 - ii. Specification of annual biological catch (ABC) and ABC control rules,
 - iii. Rebuilding plans and revisions to approved rebuilding plans,
 - iv. The addition of new species to existing LAPP,
 - v. Changes specified in section 4(a) that exceed the established thresholds,
 - vi. Changes to accountability measures including:
 - In-season accountability measures
 - 1. Closures and closure procedures
 - 2. Trip limit changes
 - 3. Designation of an existing limited access privilege program as the accountability measure for species in the program
 - 4. Implementation of gear restrictions
 - Post-season accountability measures
 - 1. Adjustment of season length
 - 2. Implementation of closed seasons/time periods
 - 3. Adjustment or implementation of bag, trip, or possession limit
 - 4. Reduction of the ACL/ACT to account for the previous year overage
 - 5. Revoking a scheduled increase in the ACL/ACT if the ACL was exceeded in the previous year
 - 6. Implementation of gear restrictions
 - 7. Reporting and monitoring requirements
3. The Council will initiate the open framework process to inform the public of the issues and develop potential alternatives to address the issues. The framework process will include the development of documentation and public discussion during at least one Council meeting.
4. Prior to taking final action on the proposed framework action, the Council may convene its advisory committees and panels, as appropriate, to provide recommendations on the proposed actions.

5. For all framework actions, the Council will provide the letter, memo, or the completed framework document along with proposed regulations to the RA in a timely manner following final action by the Council.
6. For all framework action requests, the RA will review the Council's recommendations and supporting information and notify the Council of the determinations, in accordance with the Magnuson-Stevens Act and other applicable law.

Closed Framework:

1. Consistent with existing requirements in the FMP and implementing regulations, the Regional Administrator is authorized to conduct the following framework actions through appropriate notification in the Federal Register:
 - a. Close or adjust harvest of any sector of the fishery for a species, sub-species, or species group that has a quota or sub-quota at such time as projected to be necessary to prevent the sector from exceeding its sector-quota for the remainder of the fishing year or sub-quota season,
 - b. Reopen any sector of the fishery that had been prematurely closed,
 - c. Implement accountability measures, either in-season or post-season.

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APPENDIX A. SEA TURTLE RELEASE GEAR REQUIREMENTS

Appendix A1. Sea turtle release gear required for vessels with commercial and/or charter vessel/headboats with a federal Gulf reef fish permit(s) and with a freeboard height of 4 ft or less. 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.

Required Item	Example Model(s) Meeting Current Design Standards
Dipnet (handle length must be 6 ft or 150 percent of freeboard height)	ARC 12' Breakdown Lightweight Dip Net Model DN6P (6'), DN08 (8') or DN14 (12') or ARC Net Assembly (hoop, net, coupling-DNIN) and handle; Lindgren-Pitman, Inc. Model NMFS-Turtle Net; Bluewater Tackle; or Howell Tackle
Cushioned Support Device	A standard automobile tire; boat cushion; or large turtle hoist
Short-Handled Dehooker for Ingested Hooks*	17-in Bite Block Deep-Hooked (Sea Turtle) ARC Dehooker Model ST08 or NOAA/Bergmann Dehooker
Short-Handled Dehooker for External Hooks*	17-in Bite Block Deep-Hooked (Sea Turtle) ARC Dehooker Model ST08; NOAA/Bergmann Dehooker; Short-handled J-Style Dehooker; Scotty's Dehooker; or Short-handled Roby 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
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 wire brush (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 Hose	Any set of (2) rope loops covered with hose meeting design standards
Hank of Rope	Any size soft braided 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	Model # 85408 from Webster Vet Supply; VSP # 216-08 from Veterinary Specialty Products; Jorvet Model J-51z; and Krusse Model 273117.

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.

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

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

Required Item	Example Model(s) Meeting Current Design Standards
Long-handled line cutter (6 ft or 150 percent of freeboard height)	NOAA/LaForce Line Cutter or NOAA/Arceneaux Line Clipper
Long-handled ¹ (6 ft or 150 percent of freeboard height) dehooker for ingested hooks ²	ARC Pole Big Game Dehooker Models BP04, BP08, BP11, P610 and BPIN
Long-handled (6 ft or 150 percent of freeboard height) dehooker for external hooks ¹	ARC Pole Big Game Dehooker Models BP04, BP08, BP11, P610 and BPIN; Long-handled J-Style Dehooker or "Flip Stick" (ARC Model LJ6P); or Long-handled Roby Dehooker
Long-handled device to pull an "inverted V" (6 ft (1.83 m) or 150 percent of freeboard height)	Long-handled J-Style Dehooker or "Flip Stick" (ARC Model LJ6P); 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)
Dipnet (handle length must be 6 ft or 150 percent of freeboard height)	ARC 12' Breakdown Lightweight Dip Net Model DN6P (6'), DN08 (8') or DN14 (12') or ARC Net Assembly (hoop, net, coupling-DNIN) and handle; Lindgren-Pitman, Inc. Model NMFS-Turtle Net; Bluewater Tackle; or Howell Tackle
Cushioned Support Device	A standard automobile tire; boat cushion; or large turtle hoist
Short-Handled Dehooker for Ingested Hooks	17-in Bite Block Deep-Hooked (Sea Turtle) ARC Dehooker Model ST08 or NOAA/Bergmann Dehooker
Short-Handled Dehooker for External Hooks	17-in Bite Block Deep-Hooked (Sea Turtle) ARC Dehooker Model ST08; NOAA/Bergmann Dehooker; Short-handled J-Style Dehooker; Scotty's Dehooker; or Short-handled Roby 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
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 wire brush (e.g., Olympia Tools Model 974174)
Set of (3) Canine Mouth	Jorvet Model 4160, 4162, and 4164

Gags	
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 Hose	Any set of (2) rope loops covered with hose meeting design standards
Hank of Rope	Any size soft braided 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	Model # 85408 from Webster Vet Supply; VSP # 216-08 from Veterinary Specialty Products; Jorvet Model J-51z; and Krusse Model 273117.

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¹ A short-handled dehooker with an appropriate length handle extender will also fulfill this requirement.

² Until you have received training on the proper use of internal dehookers and internal dehooking techniques, an external dehooker is recommended. For those with proper training, an internal and external dehooker or one that does both, is recommended.