Gulf of Mexico Fishery Management Council

Managing Fishery Resources in the U.S. Federal Waters of the Gulf of Mexico

2203 N. Lois Avenue, Suite 1100
Tampa, Florida 33607 USA
Phone: 813.348.1630 • Toll free: 888.833.1844 • Fax: 813.348.1711
www.gulfcouncil.org

August 23, 2011

005941 AUG 2011

RECEIVED
AUG 25 2011
South Atlantic
Fishery Mgmt. Council

Mr. Robert Mahood
Executive Director
South Atlantic Fishery Management Council
4055 Faber Place Drive, Suite 201
North Charleston, South Carolina 29405

Dear Mr. Mahood:

This letter is to advise you that at its August 15-19, 2011 meeting in Austin, Texas, the Gulf of Mexico Fishery Management Council (Gulf Council) approved Action 4 to the Comprehensive Ecosystem-Based Amendment 2 (Tab C, No. 6 (b)) and the associated regulations (Tab C, No. 6 (c)) having deemed them to be necessary and appropriate. Should you have any questions, please do not hesitate to contact the Gulf Council.

Sincerely,

Robert P. Gill
Chairman

KB:BG:tk

Attachments (2)

c: Gulf Council
South Atlantic Council
Technical Staff

H:\Ecosystem\Ltr to SAFMC Re Approval of Ecosystem-Based Amend 2 Action 4 08-11.docx

1.1 Action 4. Modify management of Special Management Zones (SMZs) off South Carolina

Alternative 1. No Action. Do not modify the current management of SMZs off South Carolina.

Preferred Alternative 2. Limit harvest and possession of snapper grouper species (with the use of all non-prohibited fishing gear) in SMZs off South Carolina to the recreational bag limit.

Preferred Alternative 3. Limit harvest and possession of coastal migratory pelagic species (with the use of all non-prohibited fishing gear) in SMZs off South Carolina to the recreational bag limit.

Alternative 4. Prohibit use of hand spear and spear guns in SMZs off South Carolina.

1.1.1 Biological Effects

The Army Corps of Engineers permits the South Carolina Department of Natural Resources (SCDNR) to construct, maintain and manage the state's artificial reefs (**Figure 4-2**, and **Figure 4-3**). Artificial reefs off South Carolina are located on an expansive shelf area largely devoid of any hard or live bottom. The artificial reefs were built to promote recreational fishing and were not sited on live bottom in order to avoid any impact to commercial fisheries. The artificial reefs have been promoted since their original construction as recreational fishing areas (SAFMC Snapper Grouper Monitoring Team Report #5,1992) and the South Carolina Marine Artificial Reef Program is financially supported primarily by the recreational community through South Carolina's Saltwater Recreational Fishing License Program and the Federal Aid in Sportfish Restoration Program (**Appendix H).**

In the EEZ off South Carolina, almost all of the artificial reefs (**Figure 4-2**, and **Figure 4-3**) are managed as special management zones (SMZs) under the FMP for the Snapper Grouper Fishery of the South Atlantic Region (Snapper Grouper FMP) to protect these relatively small reef communities from the effects of overly-efficient fishing practices. The South Atlantic Council has designated SMZs as Essential Fish Habitat – Habitat Areas of Particular Concern (EFH-HAPC). The development and protection of these habitats from gear impacts and excessive harvest by highly efficient gear types promotes conservation and enhances protection of EFH and EFH-HAPCs in the South Atlantic region (Snapper Grouper Regulatory Amendment 8, SAFMC 2000).

The use of certain types of fishing gear within the boundaries of the SMZ reefs is prohibited. Regulatory Amendment 7 to the Snapper Grouper FMP restricted fishing on the SMZs to handline, rod and reel, and spearfishing gear (excluding powerheads), and prohibited the use of black sea bass pots and bottom longlines on SMZs off South Carolina. This prohibition was the result of evidence that use of efficient fishing gear, such as black sea bass pots, does not allow for equitable utilization of the reefs by a larger number of fishermen, and results in a rapid decline in resident finfish populations on the reefs (Snapper Grouper Regulatory Amendment 7,

SAFMC 1998). The use of bangsticks (powerheads) by divers to harvest snapper grouper species is prohibited on the SMZs off South Carolina, a regulation that went into place after the Snapper Grouper Monitoring Team Report 5 evaluation concluded that some of the designated SMZ sites had received considerable fishing pressure from commercial fishing activities utilizing bang sticks and fish traps. The report included findings provided by SCDNR Marine Resources Division staff that the practice of bangsticking on the state's offshore artificial reefs had created a condition of overfishing on a localized basis. Specifically, SCDNR Marine Division staff found evidence during routine examinations of several offshore reef sites of spent shell casings, in some instances up to 50 casings in an area, and a visible lack of greater amberjack at a time when the long-term seasonal residents had been largely present on the offshore reefs (Snapper Grouper Monitoring Team Report 5, 1992). Currently, there are no restrictions on the use of conventional spearguns or hand spears, which are considered additional types of efficient fishing gear. Regulations allow permitted commercial snapper grouper fishermen to use spearguns or hand spears to harvest commercially allowable quantities of these species within the SMZs.

Recreational constituents have voiced concerns over the presence of commercial snapper grouper and coastal migratory pelagic fishing vessels operating on SMZs. Specifically, these recreational constituents feel the use of conventional spearguns by commercial fishermen to harvest fish on these sites may be harmful to the reef fish populations on SMZs. In an August 2009 letter to the South Atlantic Council (**Appendix H**), the SCDNR expressed concern over reports of commercially viable quantities of snapper grouper species being removed from the SMZs, a practice not keeping with the intended purpose for which the sites were established. SCDNR requested that the South Atlantic Council consider restricting all recreational, for-hire, and commercial users of SMZs off of South Carolina to the recreational bag limit (**Appendix H**).

An objective of designating an artificial reef an SMZ as described in Management Measure #17 of the Snapper Grouper FMP: "Upon request to the South Atlantic Council from the permittee (possessor of a Corps of Engineers permit) for any artificial reef or fish attraction device (or other modification of habitat for the purpose of fishing) the modified area and an appropriate surrounding area may be designated as a Special Management Zone (SMZ) that prohibits or restrains the use of specific types of fishing gear that are not compatible with the intent of the permittee for the artificial reef or fish attraction device," (Snapper Grouper FMP, SAFMC 1983). In an August 2009 letter to South Atlantic Council Chairman D. Harris, SCDNR states that harvest of commercially viable quantities of species on SMZs off of South Carolina is not a sustainable practice for these relatively small areas originally designated to improve recreational fishing opportunities and to protect the reef communities from overly-efficient fishing practices, SCDNR's primary objectives in their construction (**Appendix H**). Designating an artificial reef as an SMZ preserves the fishing opportunities artificial reefs provide and serves as an incentive to establish them. Fishing gear that offers "exceptional advantages" over other gear types may significantly reduce the improved fishing opportunities, and eliminate the incentive for developing an artificial reef, which would prevent improved fishing opportunities that would not otherwise exist (Snapper Grouper FMP, SAFMC 1983). Furthermore, the initial designation of the SMZs was to promote orderly use of the fishery resources on and around the artificial reefs, to reduce potential user group conflicts, and to maintain the intended socioeconomic benefits of the artificial reefs to the maximum extent practicable (Snapper Grouper Regulatory Amendment 1, SAFMC 1987).

The following 29 SMZs (artificial reefs and surrounding areas) have been established in the EEZ offshore South Carolina (**Tables 4-4 and 4-5; Figures 4-2 and 4-3**).

Table 4-4. Special Management Zone (South Carolina) Northeast and Southwest coordinates.

	Latitude	Longitude
Paradise Reef	Northern boundary 33°31.59' N. Southern boundary 33°30.51' N.	Eastern boundary 78°57.55' W. Western boundary 78°58.85' W.
Ten Mile Reef	Northern boundary 33°26.65' N. Southern boundary 33°24.80' N.	Eastern boundary 78°51.08' W. Western boundary 78°52.97' W.
Pawleys Island Reef	Northern boundary 33°26.58' N. Southern boundary 33°25.76' N.	Eastern boundary 79°00.29' W. Western boundary 79°01.24' W.
Georgetown Reef	Northern boundary 33°14.90' N. Southern boundary 33°13.85' N.	Eastern boundary 78°59.45' W. Western boundary 79°00.65' W.
Capers Reef	Northern boundary 32°45.45' N. Southern boundary 32°43.91' N.	Eastern boundary 79°33.81' W. Western boundary 79°35.10' W.
Kiawah Reef	Northern boundary 32°29.78' N. Southern boundary 32°28.25' N.	Eastern boundary 79°59.00' W. Western boundary 80°00.95' W.
Edisto Offshore Reef	Northern boundary 32°15.30' N. Southern boundary 32°13.90' N.	Eastern boundary 79°50.25' W. Western boundary 79°51.45' W.
Hunting Island Reef	Northern boundary 32°13.72' N. Southern boundary 32°12.30' N.	Eastern boundary 80°19.23' W. Western boundary 80°21.00' W.
Fripp Island Reef	Northern boundary 32°15.92' N. Southern boundary 32°14.75' N.	Eastern boundary 80°21.62' W. Western boundary 80°22.90' W.
Besty Ross Reef	Northern boundary 32°03.60' N. Southern boundary 32°02.88' N.	Eastern boundary 80°24.57' W. Western boundary 80°25.50' W.
Hilton Head Reef (Artificial Reef - T)	Northern boundary 32°00.71' N. Southern boundary 31°59.42' N.	Eastern boundary 80°35.23' W. Western boundary 80°36.37' W.
Little River Offshore Reef	Northern boundary 33°42.10' N. Southern boundary 33°41.10' N.	Eastern boundary 78°26.40' W. Western boundary 78°27.10' W.
BP-25 Reef	Northern boundary 33°21.70' N. Southern boundary 33°20.70' N.	Eastern boundary 78°24.80' W. Western boundary 78°25.60' W.
Vermilion Reef	Northern boundary 32°57.80' N. Southern boundary 32°57.30' N.	Eastern boundary 78°39.30' W. Western boundary 78°40.10' W.
Cape Romaine Reef	Northern boundary 33°00.00' N. Southern boundary 32°59.50' N.	Eastern boundary 79°02.01' W. Western boundary 79°02.62' W.
Y-73 Reef	Northern boundary 32°33.20' N. Southern boundary 32°32.70' N.	Eastern boundary 79°19.10' W. Western boundary 79°19.70' W.
Eagles Nest Reef	Northern boundary 32°01.48' N. Southern boundary 32°00.98' N.	Eastern boundary 80°30.00' W. Western boundary 80°30.65' W.
Bill Perry Jr. Reef	Northern boundary 33°26.20' N. Southern boundary 33°25.20' N.	Eastern boundary 78°32.70' W. Western boundary 78°33.80' W.
Comanche Reef	Northern boundary 32°27.40' N. Southern boundary 32°26.90' N.	Eastern boundary 79°18.80' W. Western boundary 79°19.60' W.

Murrells Inlet 60 Foot Reef	Northern boundary 33°17.50' N. Southern boundary 33°16.50' N.	Eastern boundary 78°44.67' W. Western boundary 78°45.98' W.
Georgetown 95 Foot Reef	Northern boundary 33°11.75' N. Southern boundary 33°10.75' N.	Eastern boundary 78°24.10' W. Western boundary 78°25.63' W.
New Georgetown 60 Foot Reef	Northern boundary 33°09.25' N. Southern boundary 33°07.75' N.	Eastern boundary 78°49.95' W. Western boundary 78°51.45' W.
North Inlet 45 Foot Reef	Northern boundary 33°21.03' N. Southern boundary 33°20.03' N.	Eastern boundary 79°00.31' W. Western boundary 79°01.51' W.
CJ Davidson Reef	Northern boundary 33°06.48' N. Southern boundary 33°05.48' N.	Eastern boundary 79°00.27' W. Western boundary 79°01.39' W.
Greenville Reef	Northern boundary 32°57.25' N. Southern boundary 32°56.25' N.	Eastern boundary 78°54.25' W. Western boundary 78°55.25' W.
Charleston 60 Foot Reef	Northern boundary 32°33.60' N. Southern boundary 32°32.60' N.	Eastern boundary 79°39.70' W. Western boundary 79°40.90' W.
Edisto 60 Foot Reef	Northern boundary 32°21.75' N. Southern boundary 32°20.75' N.	Eastern boundary 80°04.10' W. Western boundary 80°05.70' W.
Edisto 40 Foot Reef	Northern boundary 32°25.78' N. Southern boundary 32°24.78' N.	Eastern boundary 80°11.24' W. Western boundary 80°12.32' W.
Beaufort 45 Foot Reef	Northern boundary 32°07.65' N. Southern boundary 32°06.65' N.	Eastern boundary 80°28.80' W. Western boundary 80°29.80' W.

Table 4-5. Area of Special Management Zones off South Carolina.

SC SMZ	Area (Square Miles)	% of EEZ off SC
Little River Offshore Reef	0.77	0.003%
Paradise Reef	1.55	0.006%
Ten Mile Reef	3.87	0.014%
Pawleys Island Reef	0.86	0.003%
Bill Perry Jr. Reef	1.22	0.005%
BP-25 Reef	0.89	0.003%
North Inlet 45 Foot Reef	1.33	0.005%
Murrel's Inlet 60 Foot Reef	1.45	0.005%
Georgetown Reef	1.40	0.005%
Georgetown 95 Foot Reef	1.70	0.006%
New Georgetown 60 Foot Reef	2.50	0.009%
CJ Davidson Reef	1.24	0.005%
Cape Romaine Reef	0.34	0.001%
Vermilion Reef	0.44	0.002%
Greenville Reef	1.11	0.004%
Capers Reef	2.21	0.008%
Charleston 60 Foot Reef	1.34	0.005%
Y-73 Reef	0.34	0.001%
Kiawah Reef	3.34	0.012%
Comanche Reef	0.45	0.002%
Edisto 40 Foot Reef	1.21	0.005%
Edisto 60 Foot Reef	1.79	0.007%
Fripp Island Reef	1.68	0.006%
Edisto Offshore Reef	1.88	0.007%
Hunting Island Reef	2.82	0.011%
Beaufort 45 Foot Reef	1.12	0.004%
Betsy Ross Reef	0.75	0.003%
Eagles Nest Reef	0.37	0.001%
Hilton Head Reef/Artificial Reef-T	1.65	0.006%
Total Area	**41.61**	**0.155%**

Restrictions in SMZs off South Carolina include the following:

- The use of a powerhead to take South Atlantic snapper grouper is prohibited. Possession of a powerhead and a mutilated South Atlantic snapper grouper in, or after having fished in, one of these SMZs constitutes prima facie evidence that such fish was taken with a powerhead in the SMZ.
- Fishing may only be conducted with handline, rod and reel, and spearfishing gear.
- Use of a sea bass pot or bottom longline is prohibited.

The major species targeted in the SMZs include Atlantic spadefish, black sea bass, flounder, king mackerel, sharks, and Spanish mackerel. However, little information exists on commercial fishing in the South Carolina SMZs and therefore, the biological impacts of **Preferred Alternative 2** and **Preferred Alternative 3** cannot be quantified at this time. Any commercial effort is expected to be small. It is expected that modifying management of the SMZs to restrict

commercial fishing effort to the bag limit could possibly reduce the amount of harvest in the area and have a positive biological impact on the species regularly targeted.

Alternative 4 would prohibit the use of spearfishing gear within the SMZs, which may provide a slight positive impact to the resource. Spearfishing allows fishermen to more effectively select for larger individuals within target species populations (Sadovy 1994; Meyer 2007; Lloret et al. 2008). Spearfishing is considered to be an efficient harvesting activity that can significantly alter abundance and size structure of target species toward fewer and smaller fish by selective removal of larger individual fish. The removal of larger individual fish of the target species leaves behind smaller individuals to spawn. Over time this can decrease the size and age at sexual maturity and decrease the average size of the population (Sluka and Sullivan 1998; Chapman and Kramer 1999; Matos-Caraballo et al.
2006; Lloret et al. 2008).

Meyer (2007) reported spearfishing can remove a greater biomass of reef fishes than rod and reel fishing. Frisch et al. (2008) found that free-diving (diving without SCUBA) spear fishermen removed larger fish than rod and reel fishermen. Spearfishing can also impact ecosystem health by altering the composition of the overall natural communities of species (Lloret et al. 2008). Reduction in the larger predatory fishes can have a "top-down" effect on fish assemblages by allowing other fish populations to increase, altering the composition of the overall natural community of species, including invertebrates (Lloret et al. 2008). The largest fish are important as predators in maintaining a balanced and complete ecosystem; their selective removal may cause ecological imbalance (McClanahan and Muthiga 1988; Dulvy et al. 2002).

Spearfishing has been found to alter fish behavior (Schroeder and Parrish 2005) and may cause fish to move to different habitats (Jouvenel and Pollard 2001). These habitats may be less favorable for growth and reproduction. Frisch et al. (2008) and Harper et al. (2000) indicate a small percentage of fish speared are discarded. Frisch et al. (2008) also found that some percentage of fish also escape with spear-induced injuries. There is also little marine debris associated with spearfishing activities compared to rod and reel fishing.

1.1.2 Economic Effects

As discussed in **Section 3.6.1.2**, Rhodes and Pan (2007) provide results of a survey of private boat anglers and charter divers fishing on artificial reefs (see **Appendix I**). As stated in Chapter 3, the estimated total (aggregate) trip expenditures by private boat anglers and charter divers making trips to artificial reef sites, including SMZs off South Carolina, were $28.7 million and $0.6 million, respectively, during 2006. These artificial reef users in 2006 represented an economic impact (i.e., economic importance) of approximately $83 million in total sales (output) that generated approximately 1,000 jobs. The South Carolina marine artificial reef system, as developed and managed by the SCDNR, is a significant component of the entire South Carolina coastal economy. In addition, the man-made structures within South Carolina permitted artificial reef areas, as recreational outdoor "destinations," are an important component of the economic impacts generated by a special group or subset of tourists, (i.e., anglers and scuba divers). One of the goals of implementing the SMZ structures was to maintain intended socioeconomic benefits of the SMZs to recreational anglers.

Commercial landings of species caught on these artificial reefs cannot be quantified due to the way that logbook landings are recorded. The level of detail of reporting where fish are caught is insufficient to allow for harvest on the SMZs to be broken out from harvest made in the fishing zones the SMZs lie in; data are reported in 60 nautical miles square areas. Therefore, the loss associated with a ban on harvest above the recreational bag limit by commercial fishermen cannot be quantified with available data. Both **Preferred Alternative 2** and **Preferred Alternative 3** would be expected to result in small reductions in ex-vessel revenues to commercial fishermen, though some mitigation of these reductions could occur as a result of fishing in other areas. At the same time, **Preferred Alternative 2** and **Preferred Alternative 3** would be expected to result in increased economic benefits to recreational fishermen as a result of allocation of the harvest that would otherwise be taken by commercial fishermen to recreational fishermen. Additional economic benefits would be expected to result from healthier and more sustainable populations at these sites over the long term.

As stated above, based on data collected from charter divers, a total of 3,571 divers participated in charted SC offshore dive trips during 2006 with 53% of these charter divers (1,902 divers) making one or more dives on structures within South Carolina permitted artificial reef sites. The effect of **Alternative 4** on the recreational fishery of South Carolina is expected to be significant. However, the expected adverse economic effects cannot be quantified with available data. Also, if **Alternative 4** is implemented, recreational divers may decide to use other gear in the SMZs or fish outside the SMZs. Therefore, any estimate of losses due to **Alternative 4** would likely be an overestimate of actual losses.

1.1.3 Social Effects

Artificial reefs create unique fishing destinations. Because of this, congestion and user conflicts between recreational users and commercial fishermen may increase under **Alternative 1 (No Action)**. Additionally, because commercial harvest is a relatively recent activity in the SMZs, long-term recreational anglers will bear more of the social costs of additional congestion. However, **Alternative 1 (No Action)** allows for continued commercial harvest and opportunities to expand the commercial fishery to create jobs and provide local seafood.

Preferred Alternative 2 and **Preferred Alternative 3** would "level the playing field" for recreational and commercial fishermen. This may result in a decline or cessation of all commercial harvest within the SMZs because other areas with fewer restrictions may be better options for commercial fishermen. However, commercial harvesters would no longer be able to fully utilize the unique opportunities of these artificial reef habitats. Reduced commercial fishing in the SMZs could lead to reduced congestion issues, less competition between recreational and commercial fishermen, and decreased user conflict.

Additionally, **Preferred Alternative 2** and **Preferred Alternative 3** are more aligned with the overall purposes and goals for the SMZs. Funding to support construction and maintenance for South Carolina's artificial reefs derives mostly from state and federal sources associated with recreational fishing, and also private recreational donations. A percentage of sales of South Carolina's recreational fishing licenses funds the Marine Artificial Reef Program to support

construction and maintenance of the state's artificial reefs. The Federal Aid in Sportfish Restoration Program administered by the U.S. Fish and Wildlife Service provides funding to support artificial reefs in South Carolina and can only be used for projects and programs that impact or enhance recreational fishing. Recreational fishing clubs and other entities tied to recreational fishing interests also contribute to South Carolina's Marine Artificial Reef Program through private donations. Since the artificial reef program's inception in 1973, over $7.7 million has been contributed from these 3 primary funding sources (Mel Bell, SCDNR Office of Fisheries Management, personal communication).

Alternative 4 could negatively impact the recreational dive experience, and cause a decline in charter dive trips. Without a suitable alternative gear that provides the same level of satisfaction, prohibition of hand spears and spear guns would cause decreased opportunities for recreational spearfishers. The impact on recreational anglers using other gear types would be positive due to the possibility of more fish available if these highly effective gear types were no longer allowed.

1.1.4 Administrative Effects

Under the **No Action Alternative**, the administrative impacts will not increase. Administrative impacts associated with **Alternatives 2-4** are expected to increase. Administrative impacts may take the form of preparation of regulations, education and outreach materials and law enforcement.

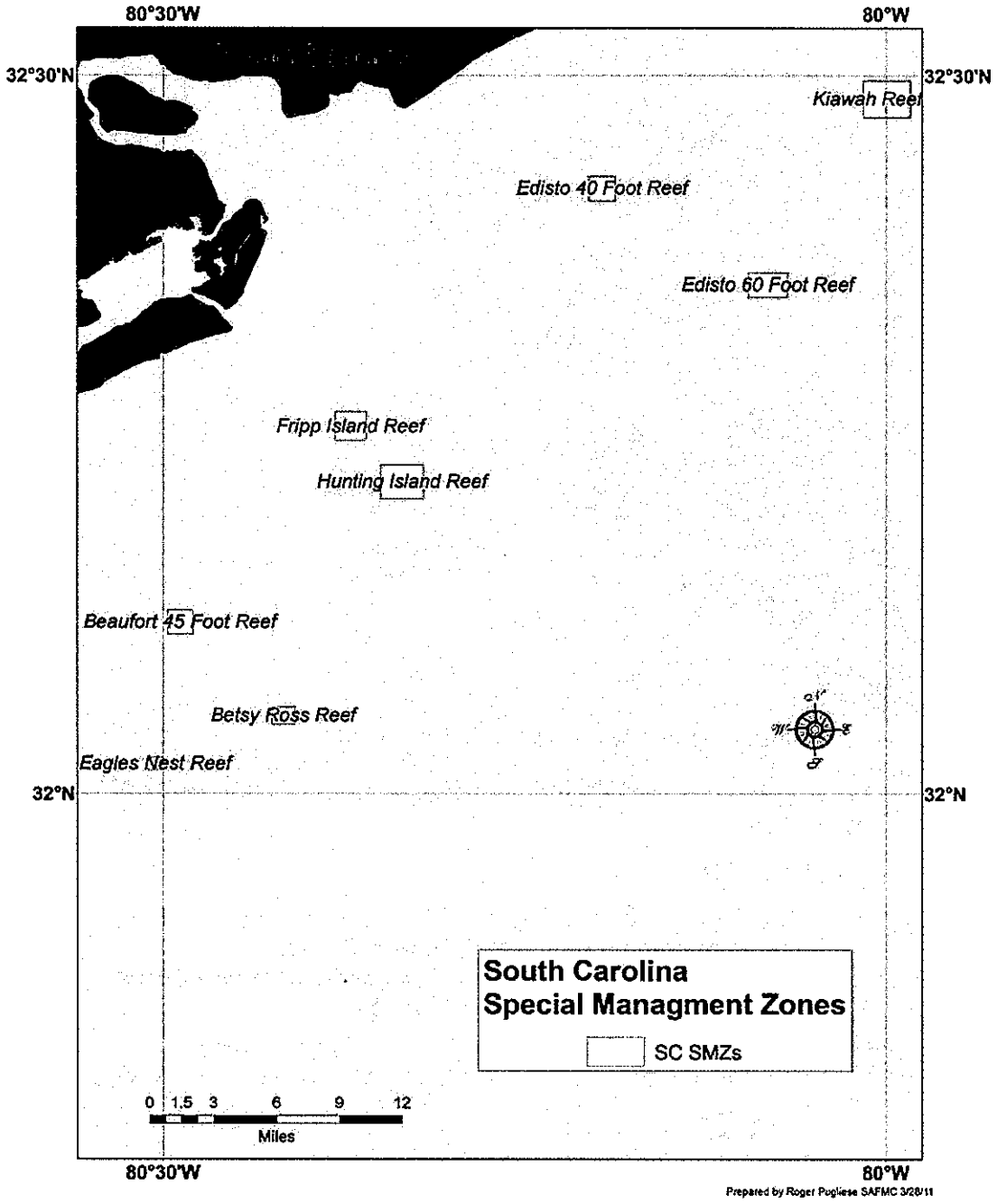

Figure 4-2. Special Management Zones off South Carolina, North geographic area.

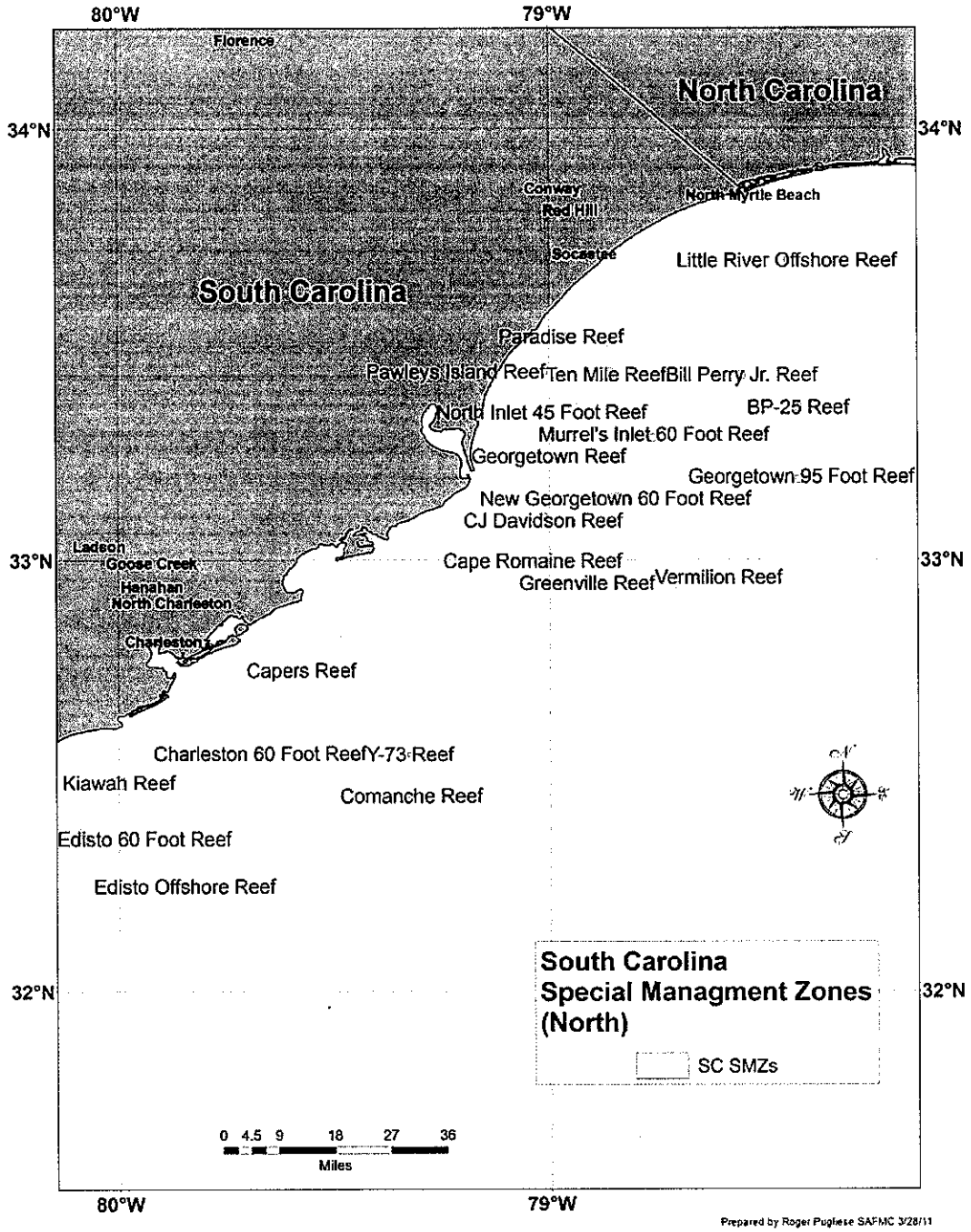

Figure 4-3. Special Management Zones off South Carolina, South geographic area.

1.1.5 Conclusion

The Law Enforcement Advisory Panel reviewed CE-BA 2 during their August 2009 and March 2011 meeting, but had no specific recommendations for this action.

The South Carolina Department of Natural Resources (SCDNR) sent a letter to the South Atlantic Council in August 2009 expressing concern over reports of commercial snapper grouper vessels operating on offshore artificial reefs removing commercially viable quantities of species through conventional spear guns. The SCDNR requested the Council consider restricting harvest and possession within South Carolina SMZs to the recreational bag limit for all users.

Because of the limited data on the amount of commercial harvest occurring in SMZs off South Carolina, the Council advised that the intent of designating an artificial reef as an SMZ be captured in the action's discussion. The Snapper Grouper FMP states in Management Measure #17: "Upon request to the South Atlantic Council from the permittee, the artificial reef and surrounding area may be designated an SMZ that prohibits or restrains the use of specific types of fishing gear not compatible with the intent of the permittee (Snapper Grouper FMP, SAFMC 1983)." The SCDNR promotes artificial reefs as recreational fishing areas and the program in South Carolina is funded primarily by the recreational community. The Council selected **Preferred Alternatives 2 and 3** during their December 2010 meeting in order to address the concerns that South Carolina delegates brought forward (**Appendix H**) regarding commercial exploitation of these areas.

The Council concluded **Preferred Alternatives 2 and 3** best address the objective to minimize conflicts and prevent localized overfishing as specified in the Snapper Grouper FMP (Management Measure #17). There is no intent, by this action, to alter any existing prohibition in SMZs other than to include this modification to limit all users to the recreational bag limit in SMZs off South Carolina.

For the reasons set out in the preamble, 50 CFR part 622 is proposed to be amended as follows:

PART 622--FISHERIES OF THE CARIBBEAN, GULF, AND SOUTH ATLANTIC

1. The authority citation for part 622 continues to read as follows:

Authority: 16 U.S.C. 1801 et seq.

2. In § 622.1, paragraph (b), Table 1, the entry for "FMP for Coral, Coral Reefs, and Live/Hard Bottom Habitats of the South Atlantic Region" is revised and footnote 7 is added to read as follows:

§ 622.1 Purpose and scope.

* * * * *

(b) * * *

Table 1--FMPs Implemented Under Part 622

FMP title	Responsible fishery management council(s)	Geographical area
* * * * * * *		
FMP for Coral, Coral Reefs, and Live/Hard Bottom Habitats of the South Atlantic Region	SAFMC	South Atlantic[7]

* * * * * * *		

[7] Octocorals are managed by the FMP or regulated by this part only in the EEZ off North Carolina, South Carolina, and Georgia.

2. In § 622.2, the definition for "freeboard height" is added in alphabetical order to read as follows:

§ 622.2 Definitions and acronyms.

* * * * *

Freeboard means the working distance between the top of the gunwale to the water's surface, and will vary based on the vessel design.

* * * * *

3. In § 622.10, paragraphs (c)(1)(ii) and (iii), are revised to read as follows:

§ 622.10 Conservation measures for protected resources.

* * * * *

(c) * * *

(1) * * *

(ii) Such owner or operator must also comply with the sea turtle bycatch mitigation measures, including gear requirements and sea turtle handling requirements, specified in Appendix E to this part. (iii) Those permitted vessels with a freeboard

height of 4 ft (1.2 m) or less must have on board and must use a dipnet, cushioned/support device, short-handled dehooker, long-nose or needle-nose pliers, bolt cutters, monofilament line cutters, and at least two types of mouth openers/mouth gags. This equipment must meet the specifications described in Appendix E to this part. Those permitted vessels with a freeboard height of greater than 4 ft (1.2 m) must have on board a dipnet, cushioned/support device, long-handled line clipper, a short-handled and a long-handled dehooker, a long-handled device to pull an inverted "V", long-nose or needle-nose pliers, bolt cutters, monofilament line cutters, and at least two types of mouth openers/mouth gags. This equipment must meet the specifications described in Appendix E to this part.

* * * * *

4. In § 622.32, paragraph (b)(3)(viii) is added to read as follows:

§ 622.32 Prohibited and limited harvest species.

* * * * *

(b) * * *

(3) * * *

(viii) Octocoral may not be harvested or possessed in or from the portion of the South Atlantic EEZ managed under the FMP. Octocoral collected in the portion of the South Atlantic

EEZ managed under the FMP must be released immediately with a minimum of harm.

* * * * *

5. In § 622.35, the table in paragraph (e)(2) is revised to read as follows:

§ 622.35 Atlantic EEZ seasonal and/or area closures.

* * * * *

(e) * * *

(2) * * *

In SMZs SPECIFIED IN THE FOLLOWING PARAGRAPHS OF § 622.35	THESE RESTRICTIONS APPLY
(e)(1)(i) through (x), (e)(1)(xx), and (e)(1)(xxii) through (xxxix)	Use of a powerhead to take South Atlantic snapper-grouper is prohibited. Possession of a powerhead and a mutilated South Atlantic snapper-grouper in, or after having fished in, one of these SMZs constitutes prima facie evidence that such fish was taken with a powerhead in the SMZ. Harvest and possession of a coastal migratory pelagic fish or a South Atlantic snapper-grouper taken with non-prohibited gear is

	limited to the bag-limits specified in § 622.39(c)(1) and (d)(1), respectively.
* * * * * * *	

Comment [ac1]: Need joint Council action on this part of the measure.

6. In § 622.42, paragraph (b) is revised to read as follows:

§ 622.42 Quotas.

* * * * *

(b) Gulf allowable octocoral. The quota for all persons who harvest allowable octocoral in the Gulf EEZ is 50,000 colonies. A colony is a continuous group of coral polyps forming a single unit.

* * * * *

7. Appendix E is added to part 622 to read as follows:

Appendix E to Part 622--Specifications for Sea turtle Mitigation Gear and Sea Turtle Handling and Release Requirements

A. Sea turtle mitigation gear.

1. Long-handled line clipper or cutter. Line cutters are intended to cut high test monofilament line as close as possible to the hook, and assist in removing line from entangled sea turtles to minimize any remaining gear upon release. NMFS has established minimum design standards for the line cutters. The

LaForce line cutter and the Arceneaux line clipper are models that meet these minimum design standards, and may be purchased or fabricated from readily available and low-cost materials. One long-handled line clipper or cutter and a set of replacement blades are required to be onboard. The minimum design standards for line cutters are as follows:

(a) A protected and secured cutting blade. The cutting blade(s) must be capable of cutting 2.0-2.1 mm (0.078 in. - 0.083 in.) monofilament line (400-lb test) or polypropylene multistrand material, known as braided or tarred mainline, and must be maintained in working order. The cutting blade must be curved, recessed, contained in a holder, or otherwise designed to facilitate its safe use so that direct contact between the cutting surface and the sea turtle or the user is prevented. The cutting instrument must be securely attached to an extended reach handle and be easily replaceable. One extra set of replacement blades meeting these standards must also be carried on board to replace all cutting surfaces on the line cutter or clipper.

(b) An extended reach handle. The line cutter blade must be securely fastened to an extended reach handle or pole with a minimum length equal to, or greater than, 150 percent of the freeboard, or a minimum of 6 ft (1.83 m), whichever is greater.

It is recommended, but not required, that the handle break down into sections. There is no restriction on the type of material used to construct this handle as long as it is sturdy and facilitates the secure attachment of the cutting blade.

2. Long-handled dehooker for internal hooks. A long-handled dehooking device is intended to remove internal hooks from sea turtles that cannot be boated. It should also be used to engage a loose hook when a turtle is entangled but not hooked, and line is being removed. The design must shield the barb of the hook and prevent it from re-engaging during the removal process. One long-handled device to remove internal hooks is required onboard. The minimum design standards are as follows:

(a) Hook removal device. The hook removal device must be constructed of approximately 3/16-inch (4.76 mm) to 5/16-inch (7.94 mm) 316 L stainless steel or similar material and have a dehooking end no larger than 1 7/8-inches (4.76 cm) outside diameter. The device must securely engage and control the leader while shielding the barb to prevent the hook from re-engaging during removal. It may not have any unprotected terminal points (including blunt ones), as these could cause injury to the esophagus during hook removal. The device must be of a size appropriate to secure the range of hook sizes and

styles used in the South Atlantic snapper-grouper fishery.

(b) Extended reach handle. The dehooking end must be securely fastened to an extended reach handle or pole with a minimum length equal to or greater than 150 percent of the freeboard, or a minimum of 6 ft (1.83 m), whichever is greater. It is recommended, but not required, that the handle break down into sections. The handle must be sturdy and strong enough to facilitate the secure attachment of the hook removal device.

3. Long-handled dehooker for external hooks. A long-handled dehooker is required for use on externally-hooked sea turtles that cannot be boated. The long-handled dehooker for internal hooks described in paragraph 2. of this Appendix E would meet this requirement. The minimum design standards are as follows:

(a) Hook removal device. A long-handled dehooker must be constructed of approximately 3/16-inch (4.76 mm) to 5/16-inch (7.94 mm) 316 L stainless steel rod and have a dehooking end no larger than 1 7/8-inches (4.76 cm) outside diameter. The design should be such that a fish hook can be rotated out, without pulling it out at an angle. The dehooking end must be blunt with all edges rounded. The device must be of a size appropriate to secure the range of hook sizes and styles used in the South Atlantic snapper-grouper fishery.

(b) Extended reach handle. The handle must be a minimum length equal to the freeboard of the vessel or 6 ft (1.83 m), whichever is greater.

4. Long-handled device to pull an "inverted V". This tool is used to pull a "V" in the fishing line when implementing the "inverted V" dehooking technique, as described in the document entitled "Careful Release Protocols for Sea Turtle Release With Minimal Injury," for disentangling and dehooking entangled sea turtles. One long-handled device to pull an "inverted V" is required onboard. If a 6-ft (1.83 m) J-style dehooker is used to comply with paragraph 4. of this Appendix E, it will also satisfy this requirement. Minimum design standards are as follows:

(a) Hook end. This device, such as a standard boat hook, gaff, or long-handled J-style dehooker, must be constructed of stainless steel or aluminum. The semicircular or "J" shaped end must be securely attached to a handle. A sharp point, such as on a gaff hook, is to be used only for holding the monofilament fishing line and should never contact the sea turtle.

(b) Extended reach handle. The handle must have a minimum length equal to the freeboard of the vessel, or 6 ft (1.83 m), whichever is greater. The handle must be sturdy and strong enough to facilitate the secure attachment of the gaff hook.

5. Dipnet. One dipnet is required onboard. Dipnets are to be used to facilitate safe handling of sea turtles by allowing them to be brought onboard for fishing gear removal, without causing further injury to the animal. Turtles must not be brought onboard without the use of a dipnet or hoist. The minimum design standards for dipnets are as follows:

(a) Size of dipnet. The dipnet must have a sturdy net hoop of at least 31 inches (78.74 cm) inside diameter and a bag depth of at least 38 inches (96.52 cm) to accommodate turtles below 3 ft (0.914 m) carapace length. The bag mesh openings may not exceed 3 inches (7.62 cm) by 3 inches (7.62 cm) (bar measure). There must be no sharp edges or burrs on the hoop, or where it is attached to the handle. There is no requirement for the hoop to be circular as long as it meets the minimum specifications.

(b) Extended reach handle. The dipnet hoop must be securely fastened to an extended reach handle or pole with a minimum length equal to, or greater than, 150 percent of the freeboard, or at least 6 ft (1.83 m), whichever is greater. The handle must be made of a rigid material strong enough to facilitate the sturdy attachment of the net hoop and be able to support a minimum of 100 lb (34.1 kg) without breaking or significant bending or distortion. It is recommended, but not

required, that the extended reach handle break down into sections.

6. Cushion/support device. A standard automobile tire (free of exposed steel belts), a boat cushion, a large turtle hoist, or any other comparable cushioned elevated surface, is required for supporting a turtle in an upright orientation while the turtle is onboard. The cushion/support device must be appropriately sized to fully support a range of turtle sizes.

7. Short-handled dehooker for internal hooks. One short-handled device for removing internal hooks is required onboard. This dehooker is designed to remove ingested hooks from boated sea turtles. It can also be used on external hooks or hooks in the front of the mouth. Minimum design standards are as follows:

(a) Hook removal device. The hook removal device must be constructed of approximately 3/16-inch (4.76 mm) to 5/16-inch (7.94 mm) 316 L stainless steel, and must allow the hook to be secured and the barb shielded without re-engaging during the removal process. It must be no larger than 1 7/8-inches (4.76 cm) outside diameter. It may not have any unprotected terminal points (including blunt ones), as this could cause injury to the esophagus during hook removal. A sliding PVC bite block must be used to protect the beak and facilitate hook removal if the

turtle bites down on the dehooking device. The bite block should be constructed of a 3/4-inch (1.91 cm) inside diameter high impact plastic cylinder (e.g., Schedule 80 PVC) that is 4 to 6 inches (10.2 to 15.2 cm) long to allow for 5 inches (12.7 cm) of slide along the shaft. The device must be of a size appropriate to secure the range of hook sizes and styles used in the South Atlantic snapper-grouper fishery.

(b) Handle length. The handle should be approximately 16 to 24 inches (40.64 cm to 60.69 cm) in length, with approximately a 4 to 6-inch (10.2 to 15.2-cm) long tube T-handle of approximately 1 inch (2.54 cm) in diameter.

8. Short-handled dehooker for external hooks. One short-handled dehooker for external hooks is required onboard. The short-handled dehooker for internal hooks required to comply with paragraph 7. of this Appendix E will also satisfy this requirement. Minimum design standards are as follows:

(a) Hook removal device. The dehooker must be constructed of approximately 3/16-inch (4.76 cm) to 5/16-inch (7.94 cm) 316 L stainless steel, and the design must be such that a hook can be rotated out without pulling it out at an angle. The dehooking end must be blunt, and all edges rounded. The device must be of a size appropriate to secure the range of hook sizes and styles used in the South Atlantic snapper-grouper fishery.

(b) Handle length. The handle should be approximately 16 to 24 inches (40.64 to 60.69 cm) long with approximately a 5-inch (12.7 cm) long tube T-handle, wire loop handle or similar, of approximately 1 inch (2.54 cm) in diameter.

9. Long-nose or needle-nose pliers. One pair of long-nose or needle-nose pliers is required on board. Required long-nose or needle-nose pliers can be used to remove deeply embedded hooks from the turtle's flesh that must be twisted during removal or for removing hooks from the front of the mouth. They can also hold PVC splice couplings, when used as mouth openers, in place. Minimum design standards are as follows:

(a) General. They must be approximately 12 inches (30.48 cm) in length, and should be constructed of stainless steel material.

(b) [Reserved]

10. Bolt cutters. One pair of bolt cutters is required on board. Required bolt cutters may be used to cut hooks to facilitate their removal. They should be used to cut off the eye or barb of a hook, so that it can safely be pushed through a sea turtle without causing further injury. They should also be used to cut off as much of the hook as possible, when the remainder of the hook cannot be removed. Minimum design standards are as follows:

(a) General. They must be approximately 14 to 17 inches (35.56 to 43.18 cm) in total length, with approximately 4-inch (10.16 cm) long blades that are 2 1/4 inches (5.72 cm) wide, when closed, and with approximately 10 to 13-inch (25.4 to 33.02-cm) long handles. Required bolt cutters must be able to cut hard metals, such as stainless or carbon steel hooks, up to 1/4-inch (6.35 mm) diameter.

(b) [Reserved]

11. Monofilament line cutters. One pair of monofilament line cutters is required on board. Required monofilament line cutters must be used to remove fishing line as close to the eye of the hook as possible, if the hook is swallowed or cannot be removed. Minimum design standards are as follows:

(a) General. Monofilament line cutters must be approximately 7 1/2 inches (19.05 cm) in length. The blades must be 1 inch (4.45 cm) in length and 5/8 inches (1.59 cm) wide, when closed.

(b) [Reserved]

12. Mouth openers/mouth gags. Required mouth openers and mouth gags are used to open sea turtle mouths, and to keep them open when removing internal hooks from boated turtles. They must allow access to the hook or line without causing further injury to the turtle. Design standards are included in the item

descriptions. At least two of the seven different types of mouth openers/gags described below are required:

(a) A block of hard wood. Placed in the corner of the jaw, a block of hard wood may be used to gag open a turtle's mouth. A smooth block of hard wood of a type that does not splinter (e.g. maple) with rounded edges should be sanded smooth, if necessary, and soaked in water to soften the wood. The dimensions should be approximately 11 inches (27.94 cm) by 1 inch (2.54 cm) by 1 inch (2.54 cm). A long-handled, wire shoe brush with a wooden handle, and with the wires removed, is an inexpensive, effective and practical mouth-opening device that meets these requirements.

(b) A set of three canine mouth gags. Canine mouth gags are highly recommended to hold a turtle's mouth open, because the gag locks into an open position to allow for hands-free operation after it is in place. These tools are only for use on small and medium sized turtles, as larger turtles may be able to crush the mouth gag. A set of canine mouth gags must include one of each of the following sizes: small (5 inches)(12.7 cm), medium (6 inches) (15.24 cm), and large (7 inches)(17.78 cm). They must be constructed of stainless steel. The ends must be covered with clear vinyl tubing, friction tape, or similar, to pad the surface.

(c) A set of two sturdy dog chew bones. Placed in the corner of a turtle's jaw, canine chew bones are used to gag open a sea turtle's mouth. Required canine chews must be constructed of durable nylon, zylene resin, or thermoplastic polymer, and strong enough to withstand biting without splintering. To accommodate a variety of turtle beak sizes, a set must include one large (5 1/2 - 8 inches(13.97 cm - 20.32 cm) in length), and one small (3 1/2 - 4 1/2 inches (8.89 cm - 11.43 cm) in length) canine chew bones.

(d) A set of two rope loops covered with protective tubing. A set of two pieces of poly braid rope covered with light duty garden hose or similar flexible tubing each tied or spliced into a loop to provide a one-handed method for keeping the turtle's mouth open during hook and/or line removal. A required set consists of two 3-ft (0.91 m) lengths of poly braid rope 3/8-inch (9.52 mm) diameter suggested), each covered with an 8-inch (20.32 cm) section of 1/2 inch (1.27 cm) or 3/4 inch (1.91 cm) tubing, and each tied into a loop. The upper loop of rope covered with hose is secured on the upper beak to give control with one hand, and the second piece of rope covered with hose is secured on the lower beak to give control with the user's foot.

(e) A hank of rope. Placed in the corner of a turtle's

jaw, a hank of rope can be used to gag open a sea turtle's mouth. A 6-ft (1.83 m) lanyard of approximately 3/16-inch (4.76 mm) braided nylon rope may be folded to create a hank, or looped bundle, of rope. Any size soft-braided nylon rope is allowed, however it must create a hank of approximately 2 - 4 inches (5.08 cm - 10.16 cm) in thickness.

(f) A set of four PVC splice couplings. PVC splice couplings can be positioned inside a turtle's mouth to allow access to the back of the mouth for hook and line removal. They are to be held in place with the needle-nose pliers. To ensure proper fit and access, a required set must consist of the following Schedule 40 PVC splice coupling sizes: 1 inch (2.54 cm), 1 1/4 inch (3.18 cm), 1 1/2 inch (3.81 cm), and 2 inches (5.08 cm).

(g) A large avian oral speculum. A large avian oral speculum provides the ability to hold a turtle's mouth open and to control the head with one hand, while removing a hook with the other hand. The avian oral speculum must be 9-inches (22.86 cm) long, and constructed of 3/16-inch (4.76 mm) wire diameter surgical stainless steel (Type 304). It must be covered with 8 inches (20.32 cm) of clear vinyl tubing (5/16-inch (7.9 mm) outside diameter, 3/16-inch (4.76 mm) inside diameter), friction tape, or similar to pad the surface.

B. Sea turtle handling and release requirements. Sea turtle bycatch mitigation gear, as specified in paragraphs A. 1. through 4. of this Appendix E, must be used to disengage any hooked or entangled sea turtles that cannot be brought onboard. Sea turtle bycatch mitigation gear, as specified in paragraphs A. 5. through 12. of this Appendix E, must be used to facilitate access, safe handling, disentanglement, and hook removal or hook cutting of sea turtles that can be brought onboard, where feasible. Sea turtles must be handled, and bycatch mitigation gear must be used, in accordance with the careful release protocols and handling/release guidelines specified in § 622.10(c)(1), and in accordance with the onboard handling and resuscitation requirements specified in §223.206(d)(1)of this title.

1. Boated turtles. When practicable, active and comatose sea turtles must be brought on board, with a minimum of injury, using a dipnet as specified in paragraph A. 5. of this Appendix E. All turtles less than 3 ft (.91 m) carapace length should be boated, if sea conditions permit.

(a) A boated turtle should be placed on a cushioned/support device, as specified in paragraph A. 6. of this Appendix E, in an upright orientation to immobilize it and facilitate gear removal. Then, it should be determined if the hook can be

removed without causing further injury. All externally embedded hooks should be removed, unless hook removal would result in further injury to the turtle. No attempt to remove a hook should be made if it has been swallowed and the insertion point is not visible, or if it is determined that removal would result in further injury. If a hook cannot be removed, as much line as possible should be removed from the turtle using monofilament cutters as specified in paragraph A. 11. of this Appendix E, and the hook should be cut as close as possible to the insertion point before releasing the turtle, using bolt cutters as specified in paragraph A. 10. of this Appendix E. If a hook can be removed, an effective technique may be to cut off either the barb, or the eye, of the hook using bolt cutters, and then to slide the hook out. When the hook is visible in the front of the mouth, a mouth-opener, as specified in paragraph A. 12. of this Appendix E, may facilitate opening the turtle's mouth and a gag may facilitate keeping the mouth open. Short-handled dehookers for internal hooks, or long-nose or needle-nose pliers, as specified in paragraphs A. 7. and A. 8. of this Appendix E, respectively, should be used to remove visible hooks from the mouth that have not been swallowed on boated turtles, as appropriate. As much gear as possible must be removed from the turtle without causing further injury prior to its release.

Refer to the careful release protocols and handling/release guidelines required in § 622.10(c)(1), and the handling and resuscitation requirements specified in §223.206(d)(1) of this title, for additional information.

(b) [Reserved]

2. Non-boated turtles. If a sea turtle is too large, or hooked in a manner that precludes safe boating without causing further damage or injury to the turtle, sea turtle bycatch mitigation gear specified in paragraphs A. 1. through 4. of this Appendix E must be used to disentangle sea turtles from fishing gear and disengage any hooks, or to clip the line and remove as much line as possible from a hook that cannot be removed, prior to releasing the turtle, in accordance with the protocols specified in § 622.10(c)(1).

(a) Non-boated turtles should be brought close to the boat and provided with time to calm down. Then, it must be determined whether or not the hook can be removed without causing further injury. All externally embedded hooks must be removed, unless hook removal would result in further injury to the turtle. No attempt should be made to remove a hook if it has been swallowed, or if it is determined that removal would result in further injury. If the hook cannot be removed and/or if the animal is entangled, as much line as possible must be

removed prior to release, using a line cutter as specified in paragraph A. 1. of this Appendix E. If the hook can be removed, it must be removed using a long-handled dehooker as specified in paragraphs A. 2. and A. 3. of this Appendix E. Without causing further injury, as much gear as possible must be removed from the turtle prior to its release. Refer to the careful release protocols and handling/release guidelines required in § 622.10(c)(1), and the handling and resuscitation requirements specified in §223.206(d)(1) for additional information.

(b) [Reserved]