

**REGULATORY ALTERNATIVES****CHAPTER 3**

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The Atlantic Large Whale Take Reduction Plan (ALWTRP) includes a combination of fishing gear modifications and time/area closures to reduce the risk that whales will be killed or seriously injured as a result of entanglement in commercial fishing gear. The nature of the gear modification requirements varies by location and time of year, maximizing reduction in entanglement risk based on whale movements. NMFS complements these gear modification requirements with prohibitions on fishing at times and in places where whale aggregations are greatest, and therefore entanglement risk may be particularly high.

NMFS is considering various alternatives for modifying existing ALWTRP requirements. The alternatives under consideration seek to reduce large whale entanglement by folding in other trap/pot fisheries under the ALWTRP; reducing the profile of groundlines; and mandating gear modifications to vertical lines, for example, by requiring gear marking and the use of weak links of lower breaking strength. These changes are designed to address ongoing right, humpback, and fin whale entanglements resulting in serious injury or mortality. The measures under consideration are designed to address entanglement risk posed by fisheries in U.S. waters; however, NMFS recognizes that entanglement risks occur throughout the range of these species. NMFS will continue to work with the Government of Canada toward the development of similar protective measures for large whales in Canadian waters.

NMFS has identified a preferred alternative (Alternative 6 Final) from those considered. Alternatives previously identified as preferred in the DEIS are marked with an asterisk (\*) throughout this chapter. Below, we first describe the regulatory alternatives under consideration and the features of the preferred alternative (Section 3.1). We then discuss the alternatives that NMFS has considered but rejected (Section 3.2).

**3.1 ALTERNATIVES CONSIDERED**

NMFS has identified six regulatory alternatives for consideration and has identified a preferred alternative (Alternative 6 Final) from those considered. The requirements under these alternatives supplement existing ALWTRP requirements, unless otherwise noted. The alternatives introduce new gear restrictions for fisheries already included under the ALWTRP

and extend the requirements to a broader set of fisheries, including additional trap/pot fisheries (Category II Atlantic blue crab trap/pot and Atlantic mixed species trap/pot as designated in the List of Fisheries (LOF)) and additional gillnet fisheries (Category II Northeast anchored float and Northeast drift gillnet as designated in the LOF). NMFS also proposes modifying exempted areas, adding gear marking requirements, and making regulatory language changes that would apply across all the alternatives, with the exception of the No Action Alternative (Alternative 1).

The alternatives examined in this FEIS are the product of extensive outreach conducted by NMFS. NMFS reconvened the Atlantic Large Whale Take Reduction Team (ALWTRT) on April 28-30, 2003, to help evaluate the ALWTRP and discuss additional modifications that may be necessary to meet the goals of the MMPA and ESA. In response to the continued risk of serious injury or mortality of large whales from entanglement in commercial fishing gear, NMFS determined that additional modifications to the ALWTRP were warranted. Therefore, the ALWTRT was asked by NMFS to consider and develop additional options for addressing incidental interactions between commercial fisheries and large whales. Particular emphasis was placed on those options designed to reduce the potential for entanglements and minimize adverse impacts if entanglements occur.

In addition to the April 2003 meeting, the ALWTRT met in subgroups over the following two months to discuss and refine the proposals developed at the full meeting. These included meetings of the “Northeast Inshore Lobster Trap/Pot,” “Offshore Trap/Pot,” “Southeast/Mid-Atlantic,” and “Northeast Gillnet” subgroups. All meetings were open to the public.

On June 30, 2003, NMFS published a Notice of Intent (NOI) in the *Federal Register* to announce the agency’s intent to prepare an Environmental Impact Statement (EIS) (68 FR 38676). In the NOI, NMFS requested comments and announced several public scoping meetings along the east coast to solicit comments on the range of issues to be considered during the preparation of the EIS.

Proposals from the April 2003 ALWTRT meeting and subsequent subgroup meetings were used to develop an issues and options document, which NMFS made available to the public during the scoping process. The scoping document described the major issues, current management and legal requirements, and potential management measures (including measures already in effect) to address fisheries that may frequently or occasionally interact with large whales. During the summer of 2003, NMFS conducted six public scoping meetings at locations from Maine to Florida along the east coast. Following publication of the DEIS, NMFS conducted a series of thirteen public hearings at which additional comments were gathered.

During the rulemaking process, NMFS received numerous comments from diverse interested parties. The comments included both formal written comments as well as oral comments offered at the scoping meetings and public hearings. Volume II to this EIS summarizes the comments received on the DEIS.<sup>1</sup> Likewise, Volume II summarizes the comments received during the initial scoping stages of the rulemaking and directs the reader to relevant FEIS sections where the comments are addressed.

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<sup>1</sup> NMFS has received comments and information from DEIS reviewers and made technical modifications to the FEIS as appropriate. These changes are not listed separately in the comments and responses.

### 3.1.1 Alternative 1: No Action Alternative

Under Alternative 1, NMFS would continue with the status quo, i.e., the baseline set of ALWTRP requirements currently in place. A description of the current requirements can be found in Chapter 2.

Exhibit 3-1 presents the management areas established under Alternative 1 for trap/pot and gillnet fisheries.

Exhibit 3-2 summarizes the key components of the remainder of the proposed alternatives, arranging the requirements by fishery and geographic region (where appropriate). The discussion below describes each alternative in greater detail, highlighting the differences among alternatives as well as their similarities.

### 3.1.2 Alternative 2

Alternative 2 would modify the ALWTRP in a number of ways, with some changes applying equally to all fisheries and other changes affecting only certain fisheries or regions.<sup>2</sup> As shown in Exhibit 3-2, key regulatory changes common to all fisheries include the following:

- Weak links would be required on all flotation and/or weighted devices attached to the buoy line.

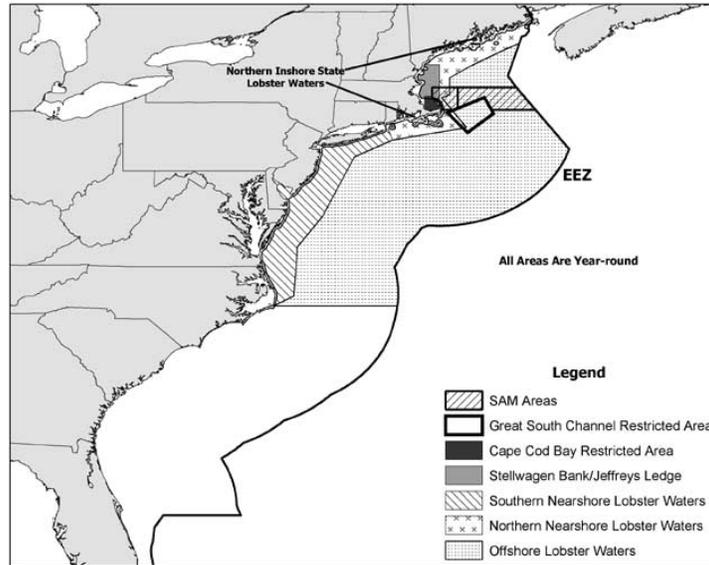
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<sup>2</sup> All requirements discussed under each alternative would be effective six months after publication of the final rule, unless otherwise noted.

Exhibit 3-1

ALTERNATIVE 1 MANAGEMENT AREAS

Lobster Trap/Pot Fisheries Alternative 1



Gillnet Fisheries Alternative 1

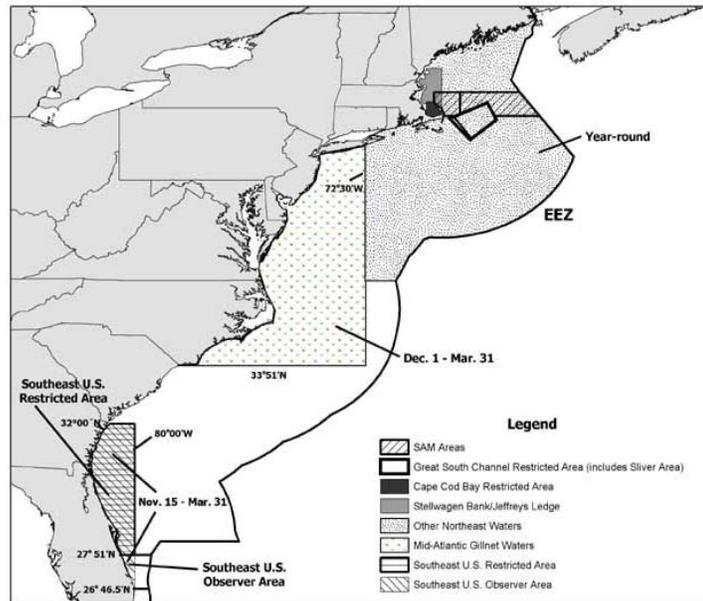


Exhibit 3-2

**PROPOSED ALWTRP MANAGEMENT ALTERNATIVES 2 THROUGH 6 FINAL (PREFERRED) <sup>1</sup>**  
**(Requirements in Addition to Current ALWTRP Requirements) <sup>2</sup>**

<b>Fishery/Region</b>	<b>Component</b>	<b>Alternative 2</b>	<b>Alternative 3*</b>	<b>Alternative 4</b>	<b>Alternative 5</b>	<b>Alternative 6 Draft*</b>	<b>Alternative 6 Final (Preferred)</b>
Lobster – Northern Inshore and Nearshore Waters; Stellwagen Bank/Jeffreys Ledge Restricted Area; and Cape Cod Bay Restricted Area (5/16 – 12/31) <sup>3</sup>	Weak links	<ul style="list-style-type: none"> <li>Weak links on all flotation devices and/or weighted devices attached to the buoy line</li> <li>Eliminates existing take reduction technology list; 600-lb weak links on all flotation devices or devices attached to buoy line; applies only to Northern Inshore lobster waters and state portion of Cape Cod Bay Restricted Area (May 16 to December 31)</li> </ul>	= Alt. 2	= Alt. 2	Expanded SAM (see text)	= Alt. 3 but with expanded SAM introduced 6 mos. after publication; SAM effective for 6 mos., then eliminated; DAM eliminated six mos. after publication	= Alt. 6 Draft* but with trawls <i>of five or fewer traps</i> allowed only one buoy line in certain areas (see text)
	Groundline	<ul style="list-style-type: none"> <li>Sinking and/or neutrally buoyant groundline year-round (within 12 mos. of rule)</li> </ul>					
	Other	<ul style="list-style-type: none"> <li>Trawls of four or fewer traps allowed only one buoy line; applies only to Northern Nearshore lobster waters, Stellwagen Bank/Jeffreys Ledge Restricted Area, and Federal portions of Cape Cod Bay Restricted Area (May 16 to December 31)</li> <li>SAM/DAM eliminated 12 mos. after publication of final rule</li> </ul>					
Lobster – Offshore	Weak links	<ul style="list-style-type: none"> <li>Weak links on all flotation devices and/or weighted devices attached to the buoy line</li> <li>Buoy line weak link strength of 1,500 lbs</li> </ul>	= Alt. 2 but requirements are seasonal for mid- and South Atlantic (see text)	= Alt. 2	Expanded SAM (see text)	= Alt. 3 but with expanded SAM introduced 6 mos. after publication; SAM effective for 6 mos., then eliminated; DAM eliminated six mos. after publication	= Alt. 6 Draft*
	Groundline	<ul style="list-style-type: none"> <li>Sinking and/or neutrally buoyant groundline year-round (within 12 mos. of rule)</li> </ul>					
	Other	<ul style="list-style-type: none"> <li>SAM/DAM eliminated 12 mos. after publication of final rule</li> <li>Extend southern boundary by following the 100 fa line from 35°30'N to 27°51'N, and then extend out to EEZ</li> </ul>					
Lobster – Great South Channel Restricted Lobster Area (7/1 – 3/31) <sup>3</sup>	Weak links	<ul style="list-style-type: none"> <li>Weak links on all flotation devices and/or weighted devices attached to the buoy line</li> <li>Buoy line weak link strength of 1,500 lbs in Great South Channel area that overlaps the LMA 2/3 overlap and LMA 3 (July 1 to March 31); 600-lb weak links for other areas</li> </ul>	= Alt. 2 but requirements are seasonal for mid- and South Atlantic (see text)	= Alt. 2	Expanded SAM (see text)	= Alt. 3 but with expanded SAM introduced 6 mos. after publication; SAM effective for 6 mos., then eliminated; DAM eliminated six mos. after publication	= Alt. 6 Draft*
	Groundline	<ul style="list-style-type: none"> <li>Sinking and/or neutrally buoyant groundline year-round (within 12 mos. of rule)</li> </ul>					
	Other	<ul style="list-style-type: none"> <li>SAM/DAM eliminated 12 mos. after publication of final rule</li> </ul>					
Lobster – Southern Nearshore <sup>3</sup>	Weak links	<ul style="list-style-type: none"> <li>Weak links on all flotation devices and/or weighted devices attached to the buoy line</li> </ul>	= Alt. 2 but requirements are seasonal for mid- and South Atlantic (see text)	= Alt. 2	Expanded SAM (see text)	= Alt. 3 but with expanded SAM introduced 6 mos. after publication; SAM effective for 6 mos., then eliminated; DAM eliminated six mos. after publication	= Alt. 6 Draft*
	Groundline	<ul style="list-style-type: none"> <li>Sinking and/or neutrally buoyant groundline year-round (within 12 mos. of rule)</li> </ul>					
	Other	<ul style="list-style-type: none"> <li>Apply all requirements to currently unregulated portion of Lobster Management Area 6 that is not included in exempted waters</li> <li>DAM eliminated 12 months after publication of final rule</li> <li>Extend southern boundary by following the 100 fa line from 35°30'N to 27°51'N, and then extend inshore to coast or exemption line; area south of 35°30'N would use the 100 fa line to define Southern Nearshore Lobster Waters</li> </ul>					

Exhibit 3-2

**PROPOSED ALWTRP MANAGEMENT ALTERNATIVES 2 THROUGH 6 FINAL (PREFERRED)<sup>1</sup>  
(Requirements in Addition to Current ALWTRP Requirements)<sup>2</sup>**

<b>Fishery/Region</b>	<b>Component</b>	<b>Alternative 2</b>	<b>Alternative 3*</b>	<b>Alternative 4</b>	<b>Alternative 5</b>	<b>Alternative 6 Draft*</b>	<b>Alternative 6 Final (Preferred)</b>
Black Sea Bass, Scup, Conch/Whelk, Shrimp, Hagfish, and Jonah Crab (trap/pot fisheries) <sup>4</sup>	Weak links	<ul style="list-style-type: none"> <li>Weak links on all flotation devices and/or weighted devices attached to the buoy line</li> <li>Buoy line weak link strength of 1,500 lbs for fisheries in Offshore lobster waters and Great South Channel that overlaps the LMA 2/3 Overlap and LMA 3 (July 1 to March 31); 600-lb weak links for fisheries in other areas</li> </ul>	= Alt. 2 but requirements are seasonal for mid- and South Atlantic (see text)	= Alt. 2 but requirements are seasonal for South Atlantic (see text)	Expanded SAM (see text)	= Alt. 3 but with expanded SAM introduced 6 mos. after publication; SAM effective for 6 mos., then eliminated; DAM eliminated six mos. after publication	= Alt. 6 Draft* but with trawls of five or fewer traps allowed only one buoy line in certain areas (see text)
	Groundline	<ul style="list-style-type: none"> <li>Sinking and/or neutrally buoyant groundline year-round within 12 mos. of rule's publication; effective six months after publication in SAM waters and in Cape Cod Bay between January 1 and May 15.</li> </ul>					
	Other	<ul style="list-style-type: none"> <li>Fold in under existing ALWTRP regulations (e.g., trawls of four or fewer traps allowed only one buoy line in Northern Nearshore lobster waters, Stellwagen Bank/Jeffreys Ledge Restricted Area and Federal portions of Cape Cod Bay Restricted Area from May 16 to December 31)</li> <li>Define southern boundary using definitions discussed under Southern Nearshore Lobster Waters and Offshore Lobster Waters</li> <li>Apply all requirements to currently unregulated portion of Lobster Management Area 6 that is not included in exempted waters</li> <li>SAM/DAM eliminated 12 mos. after publication of final rule</li> </ul>					
Red Crab (trap/pot) <sup>4</sup>	Weak links	<ul style="list-style-type: none"> <li>Weak links on all flotation devices and/or weighted devices attached to the buoy line</li> <li>Buoy line weak link breaking strength of 2,000 lbs for operations in offshore lobster waters</li> </ul>	= Alt. 2 but requirements are seasonal for mid- and South Atlantic (see text)	= Alt. 2 but requirements are seasonal for South Atlantic (see text)	Expanded SAM (see text)	= Alt. 3 but with expanded SAM introduced 6 mos. after publication; SAM effective for 6 mos., then eliminated; DAM eliminated six mos. after publication	= Alt. 6 Draft*
	Groundline	<ul style="list-style-type: none"> <li>Sinking and/or neutrally buoyant groundline year-round (within 12 mos. of rule)</li> </ul>					
	Other	<ul style="list-style-type: none"> <li>Fold in under existing ALWTRP regulations</li> <li>Define southern boundary using definitions discussed under Southern Nearshore Lobster Waters and Offshore Lobster Waters</li> <li>Apply all requirements to currently unregulated portion of Lobster Management Area 6 that is not included in exempted waters</li> <li>SAM/DAM eliminated 12 mos. after publication of final rule</li> </ul>					
Gillnet – Northeast, Anchored <sup>5</sup>	Weak links	<ul style="list-style-type: none"> <li>Weak links on all flotation devices and/or weighted devices attached to the buoy line</li> <li>Increase number of 1,100-lb weak links per panel from one to five or more, depending on net size, year-round</li> </ul>	= Alt. 2 (but requirements are seasonal south of 40°N)	= Alt. 2	Expanded SAM (see text)	= Alt. 3 but with expanded SAM introduced 6 mos. after publication; SAM effective for 6 mos., then eliminated; DAM eliminated six mos. after publication	= Alt. 6 Draft* with additional option for net panel weak link configuration (see text)
	Groundline	<ul style="list-style-type: none"> <li>Sinking and/or neutrally buoyant groundline year-round (within 12 mos. of rule)</li> </ul>					
	Other	<ul style="list-style-type: none"> <li>SAM/DAM eliminated 12 mos. after publication of final rule</li> <li>All anchored gillnets must be anchored with the holding power of at least a 22-lb Danforth-style anchor at each end of net string</li> <li>Fold in Northeast anchored float gillnet fishery under existing ALWTRP regulations</li> </ul>					

Exhibit 3-2

**PROPOSED ALWTRP MANAGEMENT ALTERNATIVES 2 THROUGH 6 FINAL (PREFERRED)<sup>1</sup>**  
**(Requirements in Addition to Current ALWTRP Requirements)<sup>2</sup>**

<b>Fishery/Region</b>	<b>Component</b>	<b>Alternative 2</b>	<b>Alternative 3*</b>	<b>Alternative 4</b>	<b>Alternative 5</b>	<b>Alternative 6 Draft*</b>	<b>Alternative 6 Final (Preferred)</b>
Gillnet – Northeast, Driftnet <sup>6</sup>	Weak links	<ul style="list-style-type: none"> <li>One 1,100-lb weak link per panel when fishing tended gear at night</li> </ul>	= Alt. 2 (but requirements are seasonal south of 40°N)	= Alt. 2	Expanded SAM (see text)	= Alt. 3 but with expanded SAM introduced 6 mos. after publication; SAM effective for 6 mos., then eliminated; DAM eliminated six mos. after publication	= Alt. 6 Draft* but without weak link requirement
	General	<ul style="list-style-type: none"> <li>Fold in and regulate same as Mid-Atlantic driftnet</li> <li>Seasonal closures in Cape Cod Bay (Jan. 1 to May 15) and Great South Channel (April 1-June 30)</li> </ul>					
Gillnet – Mid-Atlantic, Anchored <sup>7</sup>	Weak links	<ul style="list-style-type: none"> <li>Weak links on all flotation devices and/or weighted devices attached to the buoy line</li> <li>All nets must return to port with the vessel <i>or</i> contain five or more (rather than one) 1,100-lb. weak links per net panel, depending on size (and be anchored at each end of net string with an anchor having the holding power of a 22-lb Danforth-style anchor, as previously required)</li> </ul>	= Alt. 2 but requirements are seasonal (see text)	= Alt. 2	Expanded SAM (see text)	= Alt. 3 but with expanded SAM introduced 6 mos. after publication; SAM effective for 6 mos., then eliminated; DAM eliminated six mos. after publication	= Alt. 6 Draft* but with (1) option for net panel weak link configuration; and (2) alternative weak link and anchoring option for vessels within 300 yds. of NC shoreline (see text)
	Groundline	<ul style="list-style-type: none"> <li>Sinking and/or neutrally buoyant groundline year-round (within 12 mos. of rule)</li> </ul>					
	Other	<ul style="list-style-type: none"> <li>Time period for all requirements expanded to year-round (vs. current period of Dec. 1 to March 31)</li> <li>Includes gillnets that are weighted to bottom but do not have an anchor on either end and gillnets that are anchored at each end but not weighted to the bottom</li> <li>DAM eliminated 12 months after publication of rule</li> <li>Waters between 72°30'W and EEZ that are south of VA/NC border and north of SC/GA border folded into Mid-Atlantic anchored gillnet regulations</li> </ul>					
Gillnet – Mid-Atlantic, Driftnet <sup>7</sup>	Weak links	<ul style="list-style-type: none"> <li>One 1,100-lb weak link per panel when fishing tended gear at night</li> </ul>	= Alt. 2 but requirements are seasonal (see text)	= Alt. 2	Expanded SAM (see text)	= Alt. 3	= Alt. 6 Draft* but without weak link requirement
	General	<ul style="list-style-type: none"> <li>Time period for all requirements expanded to year-round (vs. current period of Dec. 1 to March 31)</li> <li>Waters between 72°30'W and EEZ that are south of VA/NC border and north of SC/GA border folded into Mid-Atlantic drift gillnet regulations</li> </ul>					

Exhibit 3-2

**PROPOSED ALWTRP MANAGEMENT ALTERNATIVES 2 THROUGH 6 FINAL (PREFERRED)<sup>1</sup>  
(Requirements in Addition to Current ALWTRP Requirements)<sup>2</sup>**

Fishery/Region	Component	Alternative 2	Alternative 3*	Alternative 4	Alternative 5	Alternative 6 Draft*	Alternative 6 Final (Preferred)
Shark Gillnet – Southeast <sup>8</sup>	General	<ul style="list-style-type: none"> <li>Extend 80°00' W longitude boundary and associated requirements to EEZ</li> <li>Replace current time period (November 15 to March 31) as follows:                             <ul style="list-style-type: none"> <li>From 32° N to 29°00'N: Restrictions apply from November 15 to April 15</li> <li>From 29°N to 26°46.5'N: Restrictions apply from December 1 to March 31 (keep 27°51'N as southern line of “Restricted Area” during this time period)</li> </ul> </li> <li>Strikenet gear in Southeast U.S. Restricted Area must be removed immediately if right, humpback, or fin whale moves within 3 nautical miles (year-round)</li> <li>Require use of vessel monitoring system in lieu of 100% observer coverage</li> </ul>	= Alt. 2 but requirements are seasonal (see text)	= Alt. 2 but requirements are seasonal (see text)	Expanded SAM (see text)	= Alt. 3	= Alt 6 Draft*, but driftnet, night/visibility set and spotter plane restrictions and VMS requirement are removed in waters east of 80°W; current observer requirements retained north of 27°51'N; VMS allowed as a substitute for observer coverage in the waters between 27°51'N and 26°46.5'N <sup>9</sup>
Gillnet – Southeast <sup>10</sup>	General	<ul style="list-style-type: none"> <li>Extend 80°00' W longitude boundary and associated requirements to EEZ</li> <li>Replace current area/time management measures as follows:                             <ul style="list-style-type: none"> <li>From SC/GA border to 29°00'N: Restrictions apply from November 15 to April 15</li> <li>From 29°00'N to 27°51'N: Restrictions apply from December 1 to March 31</li> </ul> </li> <li>Require gear modification similar to Mid-Atlantic anchored gillnets that are weighted to bottom but do not have anchor at either end (e.g., weak links in net panels and on buoys; year-round)</li> </ul>	= Alt. 2 but requirements are seasonal (see text)	= Alt. 2 but requirements are seasonal (see text)	Meet existing requirements for Mid-Atlantic gillnets	= Alt. 3	= Alt 6 Draft*, but with 1) an additional option for net panel weak link configuration (see text); and 2) removal of night set restrictions in waters east of 80°W
	Weak links	<ul style="list-style-type: none"> <li>Weak links on all flotation devices and/or weighted devices attached to the buoy line</li> <li>All nets must return to port with the vessel <i>or</i> contain five or more (rather than one) 1,100-lb. weak links per net panel, depending on size (and be anchored at each end of net string with an anchor having the holding power of a 22-lb Danforth-style anchor, as previously required)</li> </ul>					
	Groundline	<ul style="list-style-type: none"> <li>Sinking and/or neutrally buoyant groundline year-round (within 12 mos. of rule)</li> </ul>					

**Exhibit 3-2**

**PROPOSED ALWTRP MANAGEMENT ALTERNATIVES 2 THROUGH 6 FINAL (PREFERRED)<sup>1</sup>  
(Requirements in Addition to Current ALWTRP Requirements)<sup>2</sup>**

<b>Fishery/Region</b>	<b>Component</b>	<b>Alternative 2</b>	<b>Alternative 3*</b>	<b>Alternative 4</b>	<b>Alternative 5</b>	<b>Alternative 6 Draft*</b>	<b>Alternative 6 Final (Preferred)</b>
All Fisheries	Exempted Areas	<ul style="list-style-type: none"> <li>• Areas landward of 72 COLREGS line, with exceptions for Boston Harbor, Gardiners Bay (NY), and portions of the Maine coast</li> <li>• No requirement for sinking and/or neutrally buoyant groundline in waters greater than 280 fathoms</li> </ul>	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt 6 Draft*, but 1) modified exempt areas in Maine, Massachusetts and Long Island Sound; and 2) no net panel weak link or anchoring requirement in waters greater than 280 fathoms
	Gear Marking	<ul style="list-style-type: none"> <li>• Remove current ALWTRP gear marking scheme (except net panel marking for shark gillnet gear)</li> <li>• Mark surface buoys with vessel or permit number</li> <li>• Mark buoy lines with one 4-inch mark every 10 fathoms or one 4-inch mark in the center of buoy lines 10 fathoms or less (shark vessels with buoy lines &lt; 4 feet are exempt)</li> </ul>	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt 6 Draft*, but one 4-inch mark midway on all buoy lines

Key:  
\* = Specified as a Preferred Alternative in the DEIS

Notes:

- <sup>1</sup> The requirements discussed under each alternative would be effective six months after publication of the final rule, unless otherwise noted.
- <sup>2</sup> See Section 1.2.1 for a description of the current ALWTRP requirements. Note that Alternative One is the No Action Alternative.
- <sup>3</sup> Northeast/Mid-Atlantic American lobster trap/pot fishery in the 2003 List of Fisheries.
- <sup>4</sup> Atlantic mixed species trap/pot fishery in the 2003 List of Fisheries. The trap/pot fisheries affected by this action could include other species (e.g., blue crab), although these species are caught primarily in exempt waters.
- <sup>5</sup> Northeast sink gillnet fishery in the 2003 List of Fisheries
- <sup>6</sup> Northeast drift gillnet fishery in the 2003 List of Fisheries
- <sup>7</sup> Mid-Atlantic gillnet fishery in the 2003 List of Fisheries
- <sup>8</sup> Southeastern U.S. Atlantic shark gillnet fishery in the 2003 List of Fisheries
- <sup>9</sup> VMS substituted for observer requirement south of 27°51'N effective thirty days after publication of the final rule.
- <sup>10</sup> Southeast Atlantic gillnet fishery in the 2003 List of Fisheries

- Twelve months after publication of the final rule, all groundline associated with trap/pot or gillnet gear (excluding shark or drift gillnets) would need to be sinking and/or neutrally buoyant (as defined in 50 CFR 229.2).<sup>3</sup> Recent studies (e.g., Johnson et al., 2005) confirm that whales continue to be entangled in fishing gear and that groundlines are among the parts of gear posing risks. NMFS and other stakeholders are currently researching the performance of various types of groundline.<sup>4</sup>
- Both seasonal area management (SAM) requirements and dynamic area management (DAM) requirements would be eliminated 12 months after publication of the rule.

In addition, Alternative 2 would extend ALWTRP regulations to a number of fisheries included in the Atlantic mixed species trap/pot designation in the LOF that are not currently subject to such requirements. These include but are not limited to trap/pot fisheries for black sea bass, scup, conch/whelk, shrimp, red crab, hagfish, and Jonah crab. In general, the newly added fisheries would be subject to requirements similar to the current and proposed requirements for lobster. In addition, Alternative 2 would extend ALWTRP requirements to the Northeast driftnet fishery, imposing regulations similar to those that apply to the Mid-Atlantic driftnet fishery, as well as to the Northeast anchored float gillnet fishery, imposing requirements similar to those that apply to other components of the Northeast anchored gillnet fishery.<sup>5</sup>

Alternative 2 would introduce several other changes that affect specific fisheries, including the following:

- **Lobster Trap/Pot:** Lobster operations in northern inshore waters and in the state portion of the Cape Cod Bay Restricted Area (May 16 through

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<sup>3</sup> As formulated in the DEIS, Alternative 2 stipulated that broad-based requirements for the use of sinking and/or neutrally buoyant groundline would take effect on January 1, 2008, and that the SAM and DAM programs would be eliminated on that date. Delays in the rulemaking process have rendered this date impractical. To ensure that Alternative 2 remains practically viable, NMFS has updated it to specify that broad-based requirements for the use of sinking and/or neutrally buoyant groundline would take effect 12 months after publication of the final rule, and that the SAM and DAM programs would be eliminated when these broad-based requirements take effect. NMFS has made similar changes to the other alternatives that specified a January 1, 2008, effective date for some or all of these provisions (i.e., Alternatives 3\*, 4, and 6 Draft\*).

<sup>4</sup> In response to comments received on the proposed rule and DEIS, NMFS notes that the definition of groundline does not include line connecting trap/pot gear to an anchor, which trap/pot fishermen sometimes employ (particularly in offshore waters) to prevent extreme tides or sea conditions from moving their gear. Neither Alternative 2 nor the other alternatives considered in this EIS, including Alternative 6 Final (Preferred), would require the use of sinking and/or neutrally buoyant line between an anchor and associated trap/pot gear. NMFS plans to contact fishermen and state fishery management agencies to determine how frequently trap/pot fishermen use this configuration of gear, as well as the type of line employed. If floating line is used, NMFS will evaluate the potential entanglement risk and any issues that may be raised by requiring the use of sinking and/or neutrally buoyant line between an anchor and associated trap/pot gear. NMFS will then discuss the appropriate management response with the Atlantic Large Whale Take Reduction Team.

<sup>5</sup> The newly regulated fisheries would also be subject to the same right whale restricted area closures that currently apply under the ALWTRP.

December 31) would need to use 600-pound weak links, eliminating the option of choosing other gear modification techniques from the take reduction technology list. In the northern nearshore lobster fishery (as well as the Stellwagen Bank/Jeffreys Ledge Restricted Area and Federal portions of the Cape Cod Bay Restricted Area from May 16 through December 31), trawls of four or fewer traps would be allowed to use only one buoy line. The weak link breaking strength for offshore lobster gear would be lowered from 2,000 to 1,500 pounds in offshore waters and in the Great South Channel Restricted Area that overlaps with Lobster Management Area (LMA) 3 and the LMA 2/3 Overlap (from July 1 through March 31); 600-pound weak links would be required in all other areas, including the Great South Channel Restricted Area that overlaps with LMA 2 and the Outer Cape LMA.<sup>6</sup> ALWTRP requirements would be extended to the small portion of Lobster Management Area 6 (Long Island Sound) that is not included in exempted waters and is not currently covered by the plan. The southern boundary for lobster waters would be extended to 27°51'N, with nearshore waters defined by Lobster Management Areas 4, 5 and 6 north of 35°30'N and areas lying west of the 100 fathom line south of 35°30'N. Offshore waters would be defined by Lobster Management Area 3 north of 35°30'N and areas lying east of the 100 fathom line south of 35°30'N.

- **Other Trap/Pot Fisheries:** The other trap/pot fisheries would face the same requirements as lobster trap/pot operations. For example, 1,500-pound weak links would be required in offshore waters and in the Great South Channel Restricted Area that overlaps with Lobster Management Area (LMA) 3 and the LMA 2/3 Overlap (from July 1 through March 31). Likewise, 600-pound weak links would be required in all other areas, including the Great South Channel Restricted Area that overlaps with LMA 2 and the Outer Cape LMA. As with the lobster fishery, ALWTRP requirements for other trap/pot fisheries would vary by region, with existing Lobster Management Areas and the new southern management area defining the boundaries of each region (see above).
- **Gillnets:** A number of gillnet provisions would change:
  - **Northeast:** In the Northeast anchored gillnet fishery, each net panel would need five or more weak links (rather than one), depending on panel length, with a maximum breaking strength of

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<sup>6</sup> Weak links would not be required on the trap/pot itself.

1,100 pounds.<sup>7</sup> Weak links would also be required on all flotation and other devices attached to buoy lines.<sup>8</sup> One 1,100-pound weak link per panel would be required when fishing tended drift gear at night. In addition, the new regulations would require all gillnets to be anchored at each end of the net string with the holding power of a 22-pound Danforth-style anchor. The anchored float and driftnet fisheries would be added to the ALWTRP and subject to the same restrictions that apply to the anchored gillnet fishery in the Northeast and the driftnet fishery in the Mid-Atlantic, respectively.

- **Mid-Atlantic:** For the Mid-Atlantic anchored and driftnet fisheries, requirements would be effective year-round rather than solely from December 1 to March 31. All anchored nets would need to return to port with the vessel or be equipped with five or more (rather than one) 1,100-pound weak links, depending on net panel size (and be anchored at each end with an anchor having the holding power of a 22-lb Danforth-style anchor, as previously required). One 1,100-pound weak link per panel would be required when fishing tended driftnet gear at night. Also, waters between 72°30'W and the Eastern edge of the EEZ, and between the VA/NC border and SC/GA border, would be folded in and managed under the Mid-Atlantic gillnet regulations.
- **Southeast:** The 80°00'W restricted area and associated requirements would be extended eastward to the outer boundary of the EEZ. Gillnet (shark and non-shark) restrictions similar to those in the Southeast U.S. Restricted and Observer Areas<sup>9</sup> would be in effect in key areas and times, as noted in Exhibit 3-2. The timing of shark gillnet and straight set restrictions would also be revised. Alternative 2 would also require the use of vessel monitoring systems (VMS) in lieu of the observer coverage that is currently required for shark vessels. The intent of this provision is to

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<sup>7</sup> For all variations in panel size the following weak link requirements would apply: 1) weak links must be placed in the center of each of the up and down lines at both ends of each net panel; and 2) one floatline weak link must be placed as close as possible to each end of the net panel just before the floatline meets the up and down line. Also, for net panels of 50 fathoms or less in length, one floatline weak link must be placed at the center of the net panel, and for net panels greater than 50 fathoms, weak links must be placed continuously along the floatline separated by a maximum distance of 25 fathoms.

<sup>8</sup> Weak links would not be required on anchors off the buoy line.

<sup>9</sup> Under Alternatives 2 through 6 Draft\*, for shark gillnet fisheries, the portion of the Southeast U.S. Restricted Area overlapping the Southeast U.S. Observer Area north of 27°51' N to the South Carolina/Georgia border would be renamed the "Northern Monitoring and Restricted Area," and the portion of the Southeast U.S. Observer Area south of 27°51' N to 26°46.5' N would be renamed the "Southern Monitoring Area." For non-shark gillnet fisheries, the waters north of 27°51' N to the South Carolina/Georgia border, where gillnetting occurs, would be designated as "Other Southeast Gillnet Waters." All these areas would extend east to the eastern edge of the EEZ.

improve the monitoring of compliance with time and area closures and allow NMFS to increase observer coverage in other high priority fisheries. NMFS would retain the right to require vessels to take observers to detect protected species take, consistent with the Fishery Management Plan for Atlantic Tunas, Swordfish, and Sharks and its implementing regulations at 50 CFR 635, which require that observer coverage be maintained at a level necessary to maintain statistical significance. Southeast Atlantic gillnets (excluding shark gillnets) would also need to conform with existing requirements for Mid-Atlantic anchored gillnets. Finally, the requirement that shark gillnetters using strikenets remove their gear immediately if a right, humpback, or fin whale moves within a three-mile range would be made effective year round.

Graphics presenting the Alternative 2 management areas for trap/pot and gillnet fisheries are shown in Exhibit 3-3.

Alternative 2 also would introduce a number of changes that are common to most of the alternatives listed in Exhibit 3-2 (i.e., Alternatives 2 through 6 Draft\*). First, these alternatives would remove the current ALWTRP gear marking system (except net panel marking rules applying to shark gillnet gear) and instead require that:

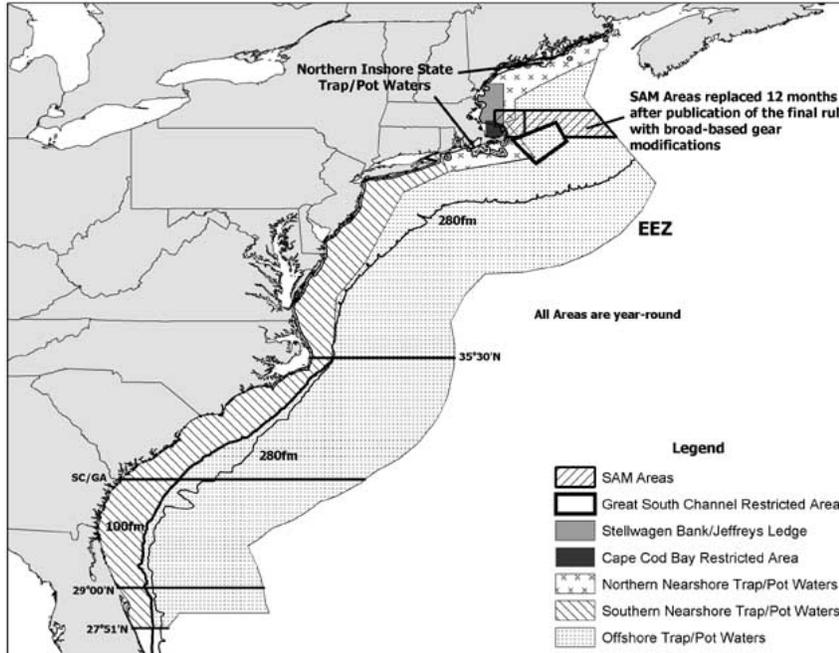
- fishermen mark surface buoys to identify the vessel number or permit number; and
- fishermen identify buoy lines with one four-inch mark every ten fathoms or, for lines shorter than ten fathoms, one four-inch mark in the center of the line (shark gillnet gear with buoy lines less than four feet would be exempt).

NMFS would also consider a regional and fishery-specific color scheme.

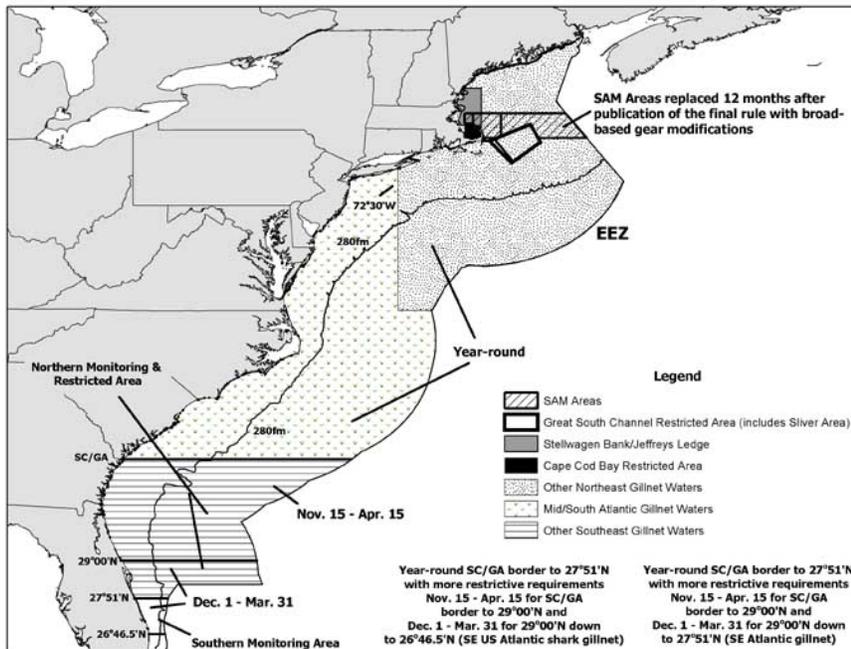
Exhibit 3-3

ALTERNATIVE 2 MANAGEMENT AREAS

Trap/Pot Fisheries Alternative 2



Gillnet Fisheries Alternative 2



Second, Alternative 2 (as well as Alternatives 3\* through 6 Draft\*) would specify a number of areas exempt from the proposed new requirements:

- The ALWTRP would exempt areas landward of the 72 COLREGS demarcation line (International Regulations for Preventing Collisions at Sea, 1972, as depicted or noted on nautical charts published by the National Oceanic and Atmospheric Administration [Coast Charts 1:80,000 scale], and as described in 33 CFR part 80).
- For Boston Harbor, Gardiners Bay (NY), and portions of the Maine coast, the ALWTRP would exempt waters landward of the coordinates provided in Appendix 3-B.
- Finally, the ALWTRP would not extend sinking and/or neutrally buoyant groundline requirements to waters deeper than 280 fathoms.

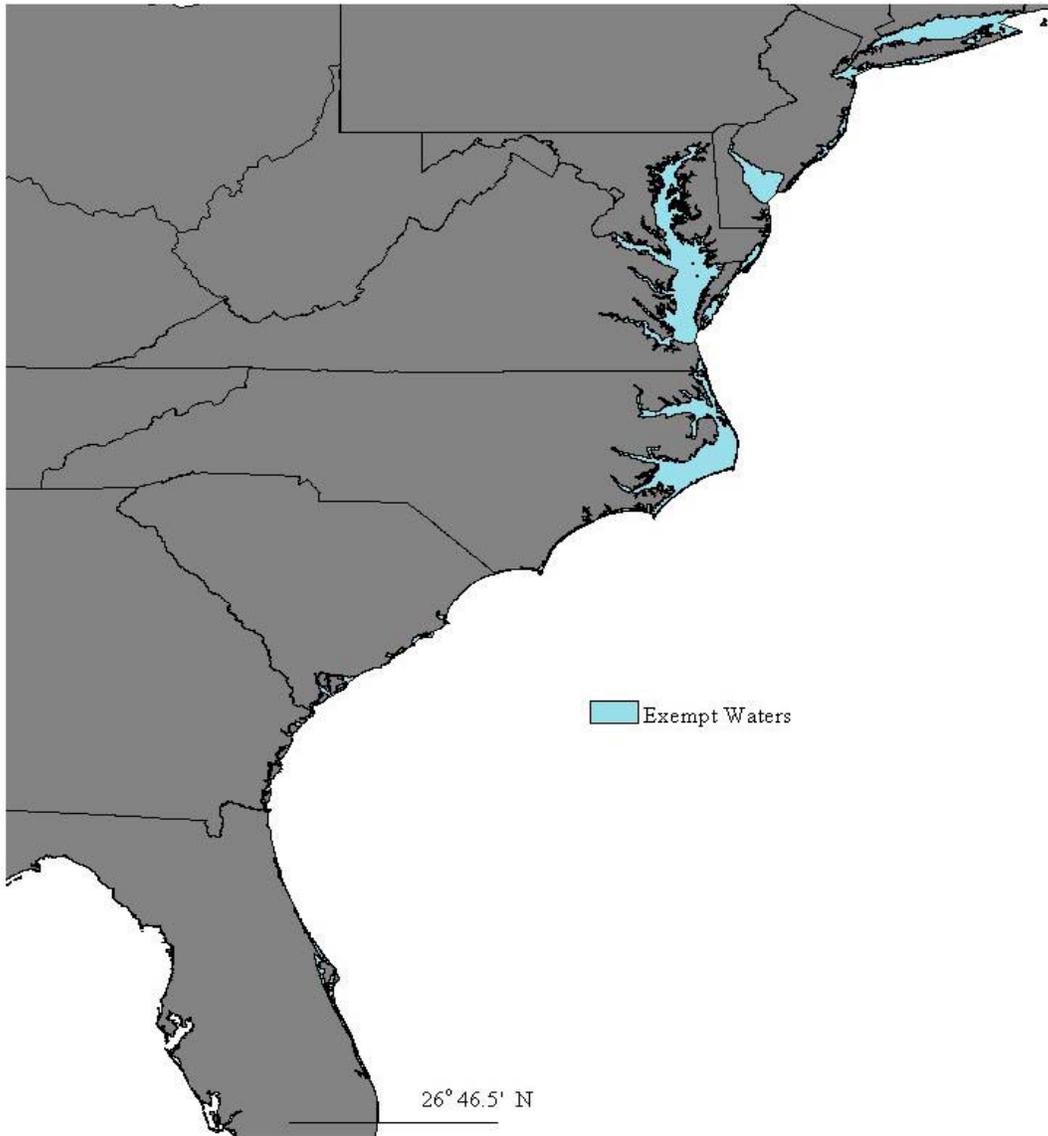
Exhibits 3-4 and 3-5 display the full set of exempted waters. Appendix 3-A discusses the rationale for these exemptions, while Appendix 3-B provides the coordinates for all exempted areas.

Third, Alternative 2 (and the remaining alternatives) would clarify the regulatory language that implements the ALWTRP. Exhibit 3-6 summarizes these changes.



Exhibit 3-5

**ALWTRP EXEMPTED WATERS UNDER ALTERNATIVES 2 THROUGH 6 DRAFT\*:  
MID- AND SOUTH ATLANTIC**



### Exhibit 3-6

#### PROPOSED REGULATORY LANGUAGE CHANGES FOR ALTERNATIVES 2 THROUGH 6 DRAFT\*

1. Make headings in the ALWTRP regulations consistent (e.g., “Weak Links on all Buoy Lines,” “Buoy Weak Links” should be changed to “Weak Links” or “Net Panel Weak Links” where appropriate).
2. Ensure that any mention of buoy line weak links includes the following guidance:
  - i) Weak links must be designed such that the bitter end of the buoy line is clean and free of any knots when the link breaks;
  - ii) Splices are not considered to be knots for the purposes of this provision; and
  - iii) Each weak link must be installed as close to each individual buoy as operationally feasible.
3. Include that fishermen may not have available for immediate use gillnet or trap/pot gear unless it complies with ALWTRP-specific requirements.
4. Define “bitter end” in 50 CFR 229.2 as follows: “Bitter end means the loose end of a line that has detached from a weak link.”
5. Define “bottom portion of the line” in 50 CFR 229.2 as follows: “Bottom portion of the line means, for buoy lines, the portion of the line in the water column that is closest to the fishing gear.”
6. Change mention of “rope of appropriate diameter” to “rope of appropriate breaking strength” in the regulations when referring to the techniques for meeting the weak link requirements. It has been established that the diameter of rope should not be used as a mitigation measure.
7. Include reference in the regulations to a brochure that specifies how to comply with gear modification requirements and how to obtain a copy to clarify what the NMFS approved techniques are.
8. In the regulatory language, where sinking and/or neutrally buoyant line is required for groundlines, prohibit the attachment of buoys, toggles, or other flotation devices.
9. Specify criteria for establishing a density standard for neutrally buoyant and sinking line, and a procedure for determining specific gravity of line (see Appendix 3-D). Modify the sinking and neutrally buoyant line definitions at 50 CFR 229.2 accordingly.
10. Clarify the sections in the regulatory text describing placement of weak links in the floatline of gillnet panels. Specifically, where appropriate, clarify that weak links should be placed in the center of net panels up to and including 50 fathoms in length, or every 25 fathoms for longer panels.
11. In the regulations for SAM and other applicable areas, when more than one net panel weak link is required, clarify the location of the weak links for net panels up to and including 50 fathoms in length, as well as for those greater than 50 fathoms.
12. Where not already specified for buoy lines and groundlines, clarify the regulatory language to state that fishermen may use “neutrally buoyant and/or sinking line” (e.g., in Cape Cod Bay from January 1 through May 15).
13. Define “sunrise” in 50 CFR 229.2 as follows: “Sunrise means the time of sunrise as determined for the date and location in The Nautical Almanac, prepared by the U.S. Naval Observatory,” and define “sunset” in 50 CFR 229.2 as follows: “Sunset means the time of sunset as determined for the date and location in The Nautical Almanac, prepared by the U.S. Naval Observatory.”
14. Change the “lobster trap/pot” and “lobster trawl” titles and definitions in 50 CFR 229.2 to “trap/pot” and “trap/pot trawl,” respectively, so these are broader in scope and incorporate the current and proposed ALWTRP regulated fisheries.
15. Remove the Gillnet Take Reduction Technology List from the regulations, as reference to this was eliminated in 2002 (67 FR 1300, January, 2002), in order to avoid confusion.
16. Change “Cape Cod Bay Critical Habitat” to “Cape Cod Bay Restricted Area” in “Other Provisions” of ALWTRP regulations.
17. Change the term “Southeast U.S. Restricted Area” to “Northern Monitoring and Restricted Area” and the term “Southeast U.S. Observer Area,” for the portion that is not included in the “Restricted Area,” to “Southern Monitoring Area.”
18. Add text in regulations that clarifies how to meet the requirement of anchoring with the holding power of a 22-lb Danforth-style anchor at each end of the net string.
19. Clarify that the Stellwagen Bank/Jeffreys Ledge Restricted Area overlaps the SAM area.
20. Move definition of a “straight set or to fish with gillnet gear in a straight set” from section of regulatory text containing restrictions applicable to southeast Atlantic gillnet gear in 50 CFR 229.32 and add it to definitions section in 50 CFR 229.2. The definition would be modified slightly to note the distinction between a straight set and a strikenet by adding “(not Strikenet)” to the end of the current definition to read as follows: “straight set or to fish with gillnet gear in a straight set means a set in which the gillnet gear is placed in a line in the water column, as opposed to a circular set in which the gillnet is placed to encircle an area in the water column (not Strikenet).” In addition, the definition for “strikenet or to fish with strikenet gear” found in 229.2 would be modified to mean “a method or technique of net deployment which is intended to encircle or enclose an area of water either with the net or by utilizing the shoreline to complete encirclement (not Straight set).”

### 3.1.3 Alternative 3\*<sup>10</sup>

Because of their migratory patterns, large whales are primarily present in Mid- and South Atlantic waters during particular months. Therefore, Alternative 3\* would entail the same requirements as Alternative 2, but would call for seasonal rather than year-round requirements for fisheries in the Mid- and South Atlantic.<sup>11</sup> Specifically, this alternative would create the following four zones:

- **North:** The first region would lie north of a line extending from Watch Hill, Rhode Island (41°18.2'N and 71°51.5'W) south to 40°00'N and then east to the EEZ. This region would have requirements identical to those specified under Alternative 2.
- **Middle:** The second region would lie south of the line described above (41°18.2'N and 71°51.5'W, south to 40°00'N, and then east to the EEZ) and north of the South Carolina/Georgia border. ALWTRP requirements for vessels fishing in this region would be identical to those specified under Alternative 2, but would only apply from September 1 through May 31.
- **South:** The third region would include waters between the SC/GA border and 29°00'N. ALWTRP requirements for vessels fishing in this region would be identical to those specified under Alternative 2, but would only apply from November 15 through April 15.
- **Far South:** The fourth region would include waters between 29°00'N and 26°46.5'N. ALWTRP requirements for vessels fishing in this region would be identical to those specified under Alternative 2, but would only apply from December 1 through March 31.

Exhibit 3-7 presents the Alternative 3\* management areas for trap/pot and gillnet fisheries.

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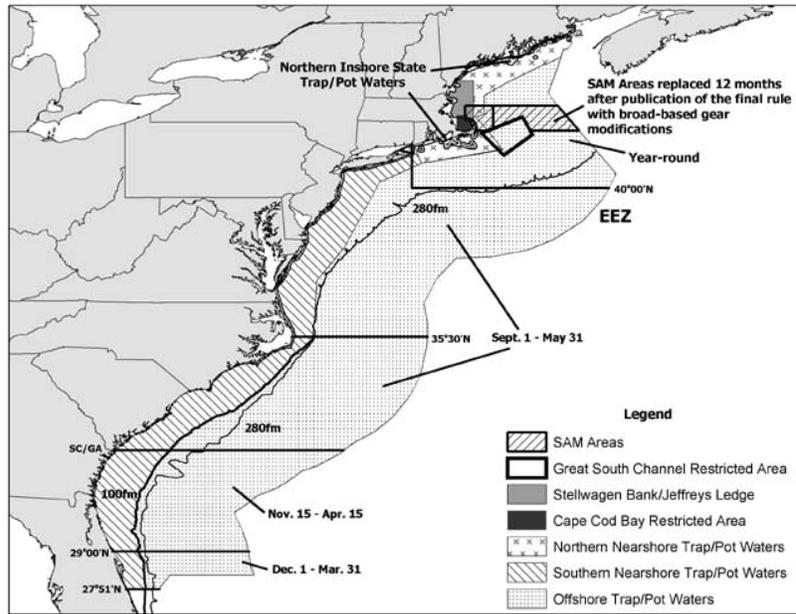
<sup>10</sup> Throughout this chapter, an asterisk (\*) is used to denote alternatives that were identified as preferred alternatives in the DEIS, but which have been set aside in favor of Alternative 6 Final (Preferred).

<sup>11</sup> NMFS developed the seasonal requirements incorporated in Alternatives 3\*, 4, 6 Draft\*, and 6 Final (Preferred) through analysis of data on sightings through early 2003 contained in the North Atlantic Right Whale Consortium Sighting Database, supplemented by additional data on humpback and fin whale sightings. For right and humpback whales, the analysis indicates that the southern calving grounds (south of the SC/GA border) are occupied from late November through early April, but are largely unoccupied during the remainder of the year. In the Mid-Atlantic, whales can be found throughout the year, but sightings occur primarily between September and May. The northern feeding areas are occupied primarily from May through September, although whales are found there throughout the year. Fin whales generally do not occur in the Southeast or southern Mid-Atlantic, but occur north of Cape Hatteras all year.

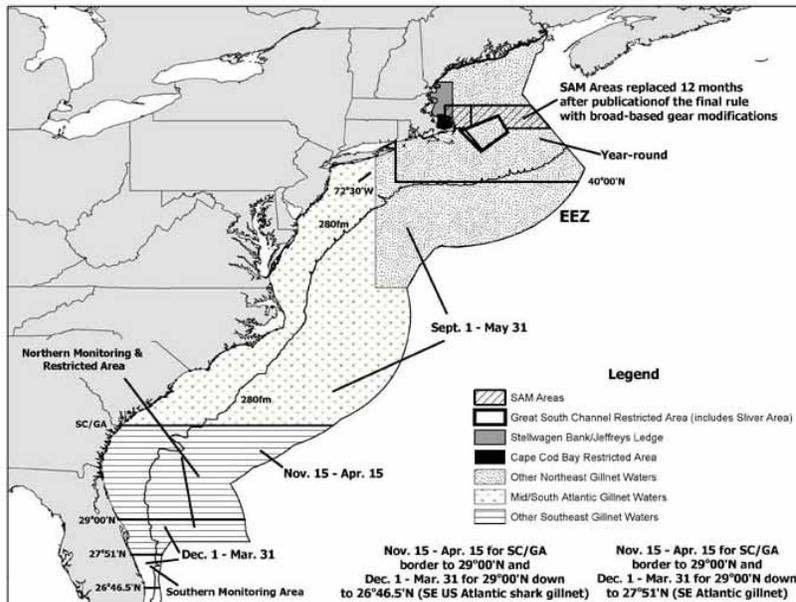
Exhibit 3-7

ALTERNATIVE 3\* MANAGEMENT AREAS

Trap/Pot Fisheries Alternative 3\*



Gillnet Fisheries Alternative 3\*



### 3.1.4 Alternative 4

Alternative 4 would entail the same requirements as Alternative 2, but would call for seasonal rather than year-round regulation of fisheries in the South Atlantic (rather than the Mid- and South Atlantic, as specified by Alternative 3\*). Specifically, ALWTRP requirements would apply between the SC/GA border and 29°00'N from November 15 through April 15, and between 29°00'N and 26°46.5'N from December 1 through March 31. All areas north of the SC/GA border would face year-round requirements.

Exhibit 3-8 presents the Alternative 4 management areas for trap/pot and gillnet fisheries.

### 3.1.5 Alternative 5

Alternative 5 would differ significantly from the alternatives described above, expanding the provisions of the existing seasonal area management (SAM) program. Specifically, the following changes would apply:

- The SAM East and SAM West zones would be modified and expanded, consistent with the map shown in Exhibit 3-9.<sup>12</sup> The coordinates of SAM West would be as follows:

1W	42°30'; 70°30'
2W	42°30'; 69°24'
3W	41°48.9'; 69°24'
4W	41°40'; 69°45'
5W	41°40'; 69°57' along the Eastern Shore of Cape Cod to
6W	42°04.8'; 70°10'
7W	42°12'; 70°15'
8W	42°12'; 70°30'

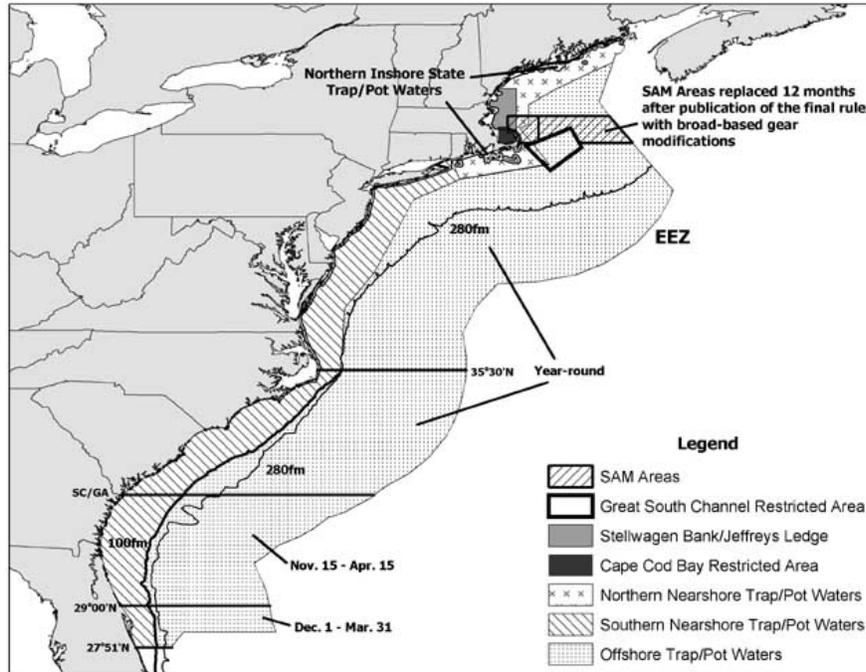
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<sup>12</sup> The proposed change in SAM boundaries is based upon two analyses conducted by the Northeast Fisheries Science Center (NEFSC). The first used spring (March through May) sighting data from 1999 to 2003 to assess whether the current SAM West and SAM East areas encompass all areas where right whales regularly congregate at that time of year. The second analysis considered March to July sightings data collected from 1975 to 2003 in the area between 40°00' N latitude and 45°00' N latitude from the Hague Line westward to the New England coast (or 73°00' W longitude) (Merrick, 2005). The results of the analyses reflect basic knowledge of right whale distribution in the Gulf of Maine. Whales occur at relatively high densities within Cape Cod Bay in March and April, then move eastward as the spring and summer progress. However, the additional survey data indicate that: (1) right whales regularly occur in March and April north of the Cape Cod Bay Restricted Area and west of the existing SAM West, (2) right whales regularly occur south of SAM West and west of the Great South Channel Restricted Area, (3) right whales are still present in SAM West in May (when SAM-related gear modifications are no longer required), and (4) there are very few or no sightings in the southeast corner of the SAM East area (Merrick, 2005). Section 5.1.2.1 (Expanded SAM Under Alternatives 5, 6 Draft\*, and 6 Final) provides a detailed discussion of the rationale behind the expansion of the SAM boundaries.

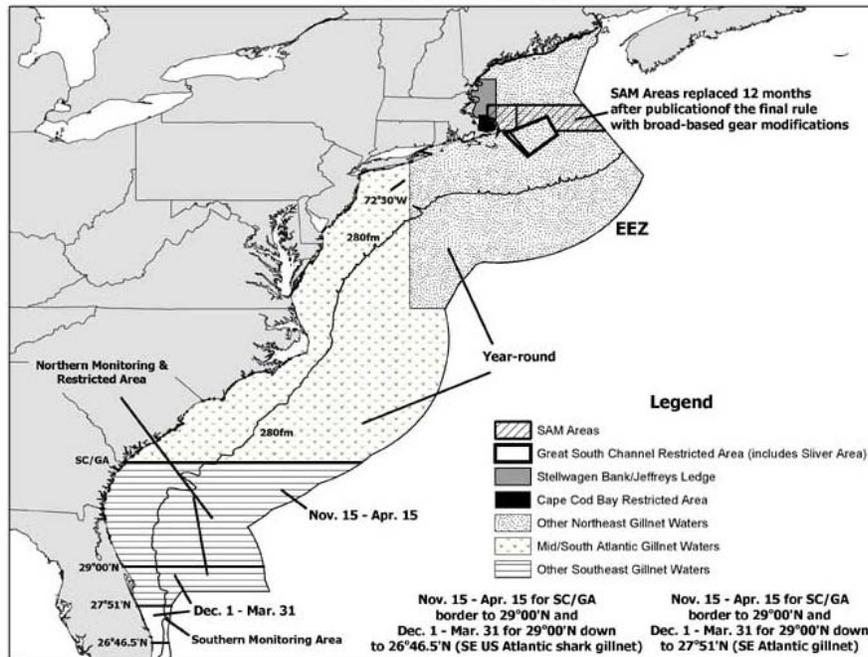
Exhibit 3-8

ALTERNATIVE 4 MANAGEMENT AREAS

Trap/Pot Fisheries Alternative 4

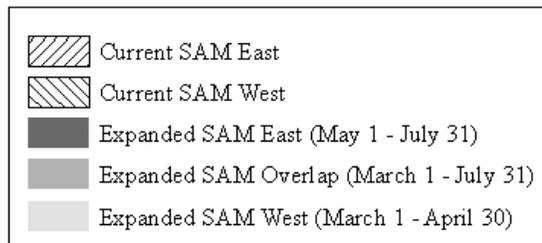
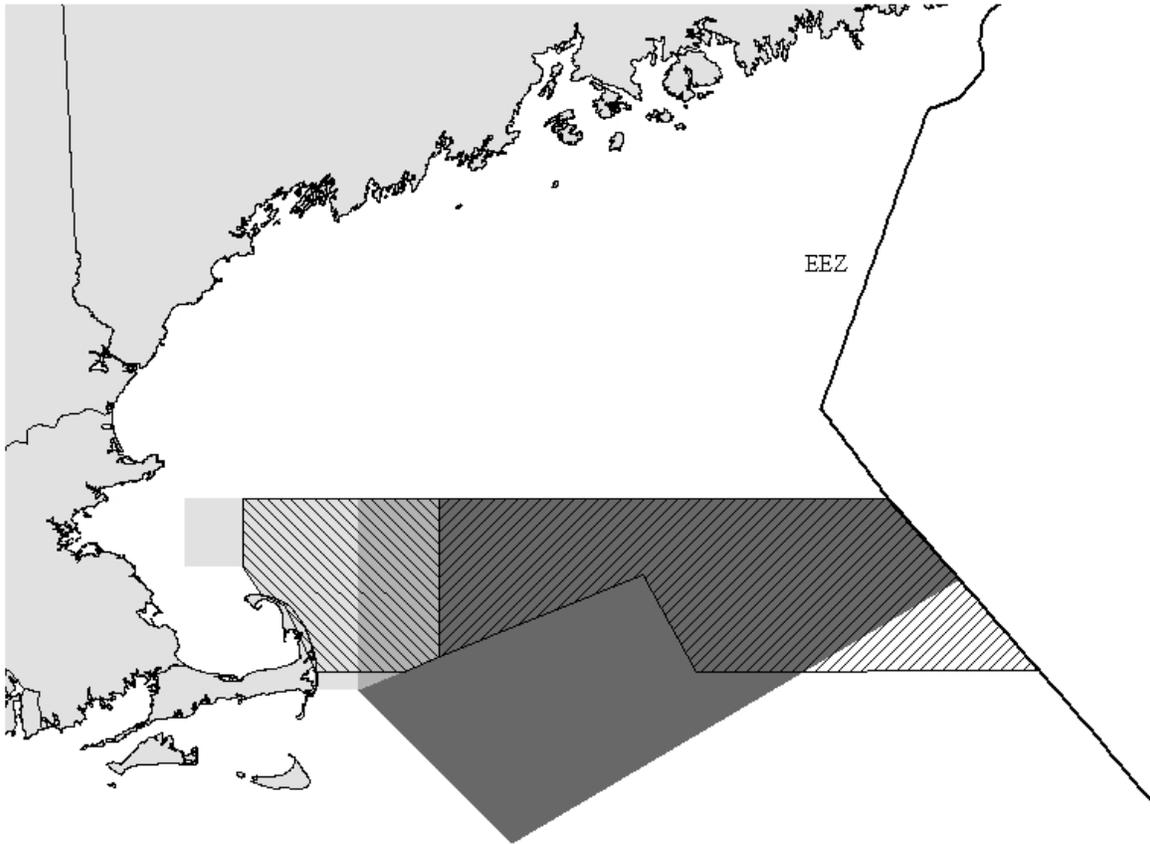


Gillnet Fisheries Alternative 4



**Exhibit 3-9**

**EXPANDED SAM ZONES UNDER  
ALTERNATIVES 5, 6 DRAFT\*, AND 6 FINAL (PREFERRED)**



The coordinates of SAM East would be:

1E	42°30'; 69°45' (NW Corner)
2E	42°30'; 67°27'
3E	42°09'; 67°08.4'
4E	41°00'; 69°05'
5E	41°40'; 69°45'

The expanded SAM area would include the Great South Channel Restricted Area; therefore, trap/pot and gillnet gear would be subject to the SAM program inside the restricted areas during time periods when the requirements for fishing inside these areas are no more conservative than the surrounding waters (i.e., when the protections of the restricted areas are not in effect). However, the more restrictive Great South Channel Restricted Trap/Pot Area and Great South Channel Restricted Gillnet Area closures (April 1 through June 30) would supercede the SAM program. As a result, gear modifications for fishing with trap/pot and gillnet gear in the SAM area would apply in the Great South Channel Restricted Trap/Pot Area and the Great South Channel Restricted Gillnet Area from July 1 through July 31, and in the Great South Channel Sliver Restricted Area from May 1 through July 31.

- In SAM waters, ALWTRP rules would require the upper two-thirds of buoy lines to be made of sinking and/or neutrally buoyant line. For vessels fishing in SAM waters as currently defined, this provision would modify existing requirements by allowing the bottom third of the buoy line to be made of floating line. For vessels fishing in areas that would be newly incorporated into the SAM zone, this provision represents a new requirement.
- SAM gear requirements would also be modified to allow two buoy lines on trap/pot trawls and gillnet strings in SAM waters. Lobster set restrictions in Northern Nearshore waters, Stellwagen Bank/Jeffreys Ledge, and in Federal waters of Cape Cod Bay (May 16 to December 31) would change from one buoy line for trawls with five traps or fewer to one buoy line for trawls of four traps or fewer.
- The requirements and area modifications described under Alternative 2 would apply from September 1 to May 31 for vessels fishing between 40°00'N and the SC/GA border, November 15 to April 15 for vessels fishing between the SC/GA border and 29°00'N, and December 1 to March 31 for vessels fishing between 29°00'N and 26°46.5'N. The requirements would apply year-round for all other vessels (i.e., those in northern waters).

Alternative 5 would also bring the new fisheries addressed by Alternatives 2 through 4 under the ALWTRP; incorporate the same gear marking requirements, exempted areas, and regulatory language changes; and eliminate the DAM program six months after publication of the final rule. Alternative 5 would not create the broad-based gear modification requirements called for under Alternative 2 (sinking/ neutrally buoyant line in groundline; the weak link/net panel configurations and anchoring requirements for gillnets).

Exhibit 3-10 presents the Alternative 5 management areas for trap/pot and gillnet fisheries.

### **3.1.6 Alternative 6 Draft\***

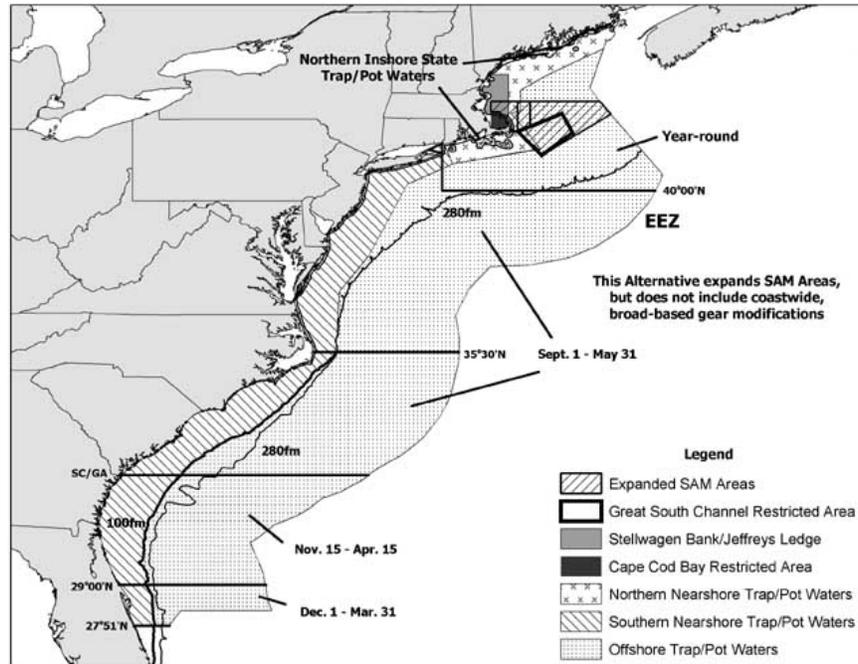
Alternative 6 Draft\* would combine elements of Alternatives 3 and 5. Buoy line weak link requirements and broad-based gear requirements (net panel weak links, sinking/ neutrally buoyant groundline, anchoring, gear marking, etc.) would be introduced on the same schedule and with the same seasonal and geographic provisions as described under Alternative 3\*. However, DAM requirements would be eliminated six months after publication of the rule, and the expanded SAM zone and SAM regulations described in Alternative 5 would begin six months after publication and apply for six months, after which the SAM program would be eliminated (i.e., 12 months after publication).

Exhibit 3-11 presents the Alternative 6 Draft\* management areas for trap/pot and gillnet fisheries.

Exhibit 3-10

ALTERNATIVE 5 MANAGEMENT AREAS

Trap/Pot Fisheries Alternative 5



Gillnet Fisheries Alternative 5

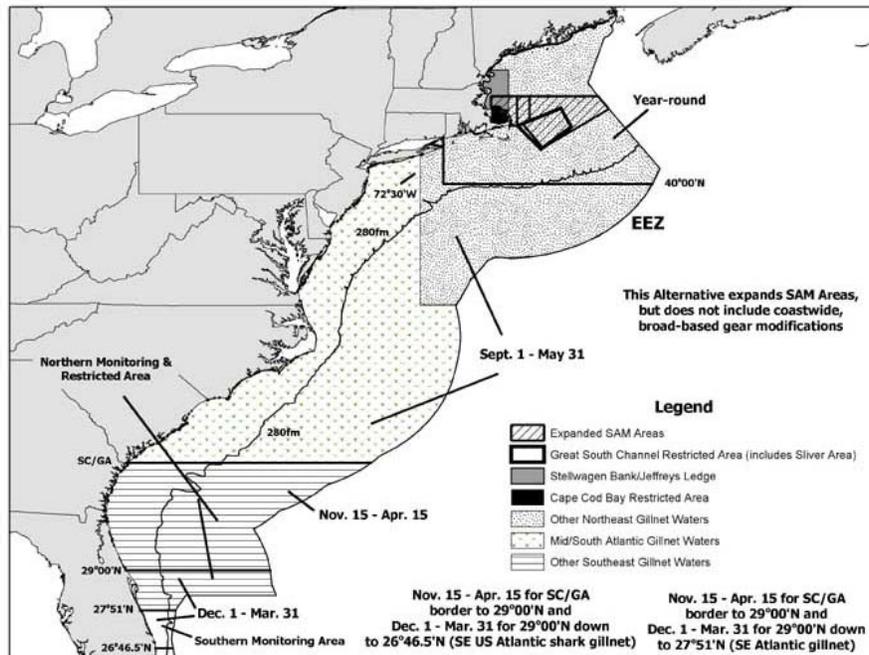
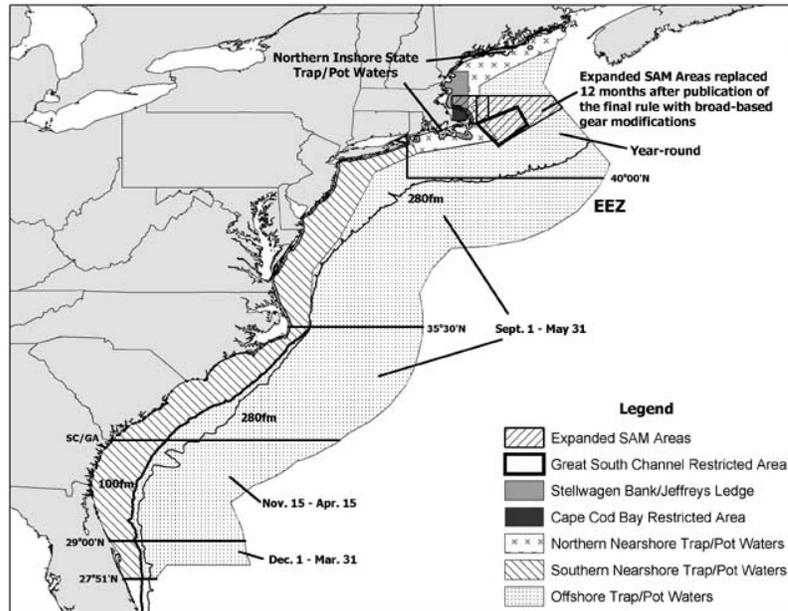


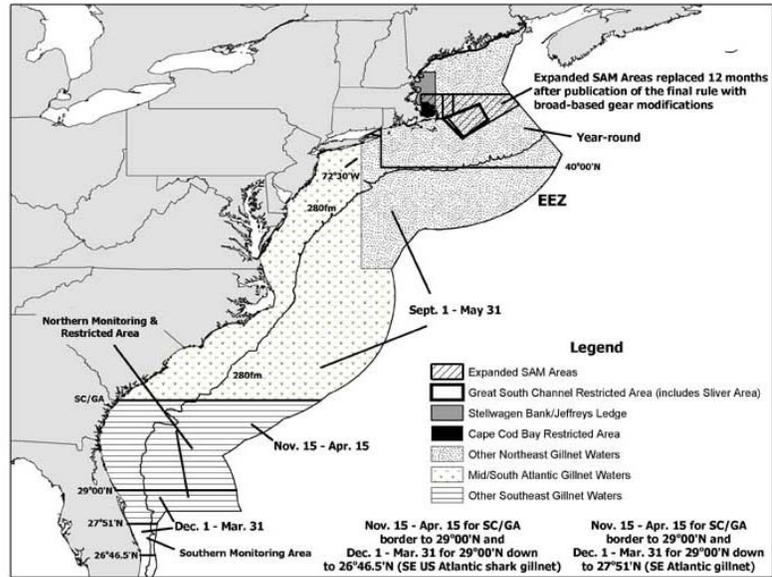
Exhibit 3-11

ALTERNATIVE 6 DRAFT\* MANAGEMENT AREAS

Trap/Pot Fisheries Alternative 6 Draft\*



Gillnet Fisheries Alternative 6 Draft\*



### 3.1.7 Alternative 6 Final (Preferred)

In response to comments received on the DEIS and proposed rule, NMFS formulated a final preferred alternative that builds on Alternative 6 Draft\*. The rationale for the preferred alternative is presented in Chapter 1. The discussion below highlights changes relative to Alternative 6 Draft\*. Most provisions would apply within six months of the rule's publication. For example, the requirement to employ sinking and/or neutrally buoyant groundline, which would take effect 12 months after publication of the final rule.

#### 3.1.7.1 Trap/Pot Fisheries

For trap/pot fisheries, changes relative to Alternative 6 Draft\* include the following:

- Areas exempt from ALWTRP regulations would be revised, consistent with the boundaries described in Appendix 3-C. The modifications would expand exempted areas in Maine and Long Island Sound and maintain the status quo designation of exempted areas in Massachusetts.
- Buoy line marking requirements would be changed to require one four-inch (10.2 cm) colored mark midway on all buoy lines (as opposed to requiring a mark every 10 fathoms). Additionally, the gear marking scheme would require all surface buoys to identify the vessel registration number, vessel documentation number, Federal permit number, or whatever positive identification mark is mandated by the state in which the vessel's home port is located.
- Maintain the status quo limit of one buoy line per trawl of five or fewer traps (rather than four or fewer traps) in Northern Nearshore lobster waters, Stellwagen Bank/Jeffreys Ledge Restricted Area, and Cape Cod Bay Restricted Area.

#### 3.1.7.2 Gillnet Fisheries

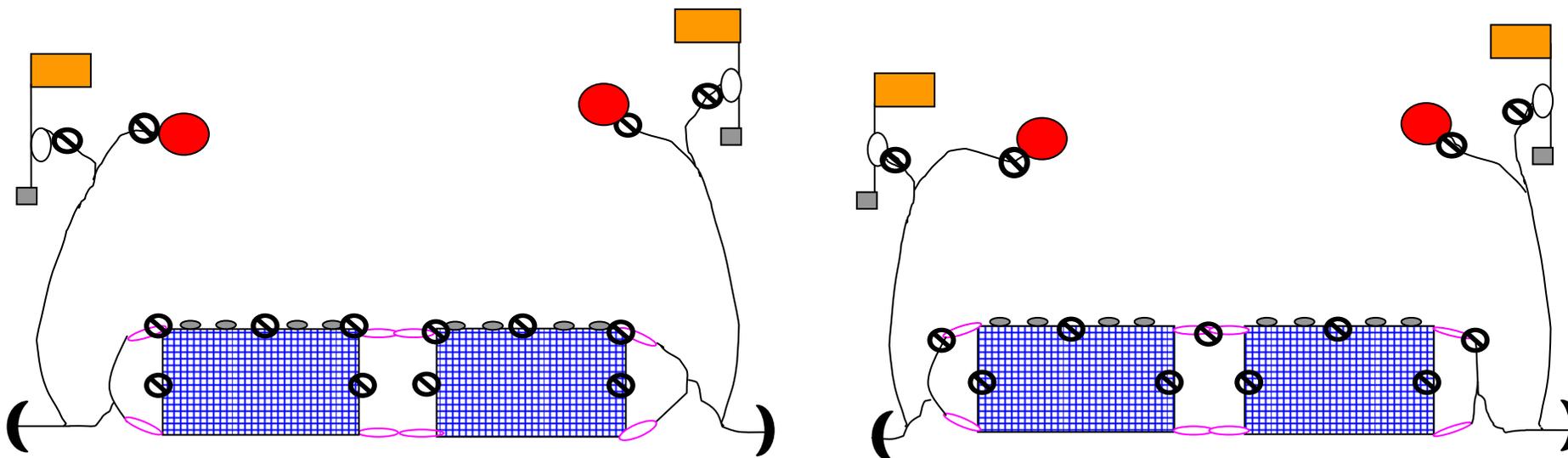
For gillnet fisheries, the preferred alternative would differ from Alternative 6 Draft\* in the following ways:

- Anchored gillnets in Northeast waters (including Stellwagen Bank/Jeffreys Ledge Restricted Area, Cape Cod Bay Restricted Area, Great South Channel Restricted Area, and Great South Channel Sliver Restricted Area), Mid-Atlantic waters, and Southeast Atlantic waters could use either the proposed net panel weak link configuration or an alternative configuration. The alternative configuration would allow weak links between the panels in the floatline tie loops (see Exhibit 3-12).

- Gillnets used within 300 yards of the North Carolina coast would be allowed an alternative weak link configuration: five or more weak links per net panel, depending on panel length, with a breaking strength no greater than 600 pounds, anchored with the holding power of at least an eight-pound Danforth-style anchor on the offshore end of the string and a 31-pound dead weight on the inshore end of the net string. Options for placement of weak links would include the proposed configuration as well as the alternative weak link configuration discussed above for Northeast waters.
- In both Northeast waters and Mid/South Atlantic waters, driftnets would not have a weak link requirement.
- As with the trap/pot regulations, areas exempt from ALWTRP regulations would be revised, consistent with the boundaries described in Appendix 3-C. The modifications would expand exempted areas in Maine and Long Island Sound and maintain the status quo designation of exempted areas in Massachusetts.
- Gillnets in waters deeper than 280 fathoms would be exempt from net panel weak link and anchoring requirements.

## Exhibit 3-12

## CONFIGURATIONS FOR NET PANEL WEAK LINKS

**Configuration 1:****For all variations in panel size:**

- One weak link must be placed in the center of each of the up and down lines at both ends of the net panel; and
- One weak link must be placed as close as possible to each end of the net panels on the floatline.

**For net panels 50 fathoms or less in length:**

- One weak link must be placed in the center of the floatline.

**For net panels greater than 50 fathoms in length:**

- One weak link must be placed at least every 25 fathoms along the floatline.

**Configuration 2:****For all variations in panel size:**

- One weak link must be placed in the center of each of the up and down lines at both ends of the net panel; and
- One weak link must be placed between floatline tie-loops between net panels; and
- One weak link must be placed where the floatline tie loops attach to the bridle, buoy line, or groundline at each end of a net string.

**For net panels 50 fathoms or less in length:**

- One weak link must be placed in the center of the floatline.

**For net panels greater than 50 fathoms in length:**

- One weak link must be placed at least every 25 fathoms along the floatline.

**Key:**

-  Weak links
-  Floats
-  Tie-Loops

**\*\*Note:** For configurations 1 & 2, if rope of appropriate breaking strength is used throughout the floatline or up and down line, or if no up and down line is present, then individual weak links are not required.

- For vessels fishing east of 80°00' W in Other Southeast Gillnet waters: 1) the prohibition against straight sets at night would be removed for non-shark gillnets; and 2) the driftnet night/visibility set restrictions, spotter plane requirement, and VMS requirement would be removed for shark gillnets.
- For shark gillnet vessels fishing west of 80°00' W, the regulations would retain requirements for observer coverage within the Southeast U.S. Observer Area north of 27°51' N. Since publication of the DEIS, NMFS has learned that VMS tracks may fail to distinguish between the use of strikenets and the use of driftnets. Distinguishing between these techniques is important because the use of driftnets in waters from the South Carolina/Georgia border (i.e., 32°00' N) south to 27°51' N and west of 80°00' W (i.e., in the Southeast U.S. Restricted Area) is prohibited. Accordingly, Alternative 6 Final (Preferred) would allow VMS to be substituted for observer coverage only in waters between 27°51' N and 26°46.5' N, where restrictions on the use of driftnets are not in effect.

Changes would also be made to the gear marking requirements originally proposed. For the Southeastern U.S. Atlantic shark gillnet fishery, there would be a return to status quo buoy line and net panel markings, and buoy lines would require marks only if the lines exceed four feet in length. For the remaining gillnet fisheries, buoy line marking requirements would be changed to require one four-inch (10.2 cm) colored mark midway on all buoy lines (as opposed to requiring a mark every 10 fathoms), consistent with trap/pot requirements. Additionally, the gear marking scheme would require all surface buoys to identify the vessel registration number, vessel documentation number, Federal permit number, or whatever positive identification mark is mandated by the state in which the vessel's home port is located.

Finally, Alternative 6 Final (Preferred) would introduce several wording changes to better define and clarify the requirements (see Exhibit 3-13). For example, the preferred alternative would change the terminology of “Southeast U.S. Restricted Area” to “Southeast U.S. Restricted Area (N and S)” (using 29°00' N as the dividing line) and “Southeast U.S. Observer Area” to “Southeast US Monitoring Area.”<sup>13</sup> Boundaries defined using the South Carolina/Georgia border would instead be defined using 32°00' N latitude because of an ongoing border dispute between the states.

Exhibit 3-14 presents the Alternative 6 Final (Preferred) management areas for trap/pot and gillnet fisheries. Exhibits 3-15, 3-16, and 3-17 depict the exempted waters under Alternative 6 Final (Preferred) for the Maine coastline, Northeast, and Mid- and South Atlantic, respectively.

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<sup>13</sup> Specifically, the Southeast U.S. Restricted Area would be renamed the "Southeast U.S. Restricted Area (N and S)", using 29°00' N as the dividing line between the northern (to 32°00' N) and southern (to 27°51' N) areas. These areas would include only waters west of 80°00' W and would be a management area for both shark and non-shark gillnet fisheries. The Southeast U.S. Observer Area would be renamed the "Southeast U.S. Monitoring Area," encompassing the area between 27°51' N and 26°46.5' N and west of 80°00' W. This management area would be for shark gillnet fisheries only. The “Other Southeast Gillnet Waters” area would encompass the waters south of 32°00' N and east of 80°00' W to the eastern edge of the EEZ. This would be a management area for both shark (north of 26°46.5' N) and non-shark (north of 27°51' N) fisheries.

**Exhibit 3-13****REGULATORY LANGUAGE CHANGES FOR ALTERNATIVE 6 FINAL (PREFERRED)**

1. Make headings in the ALWTRP regulations consistent (e.g., “Weak Links on all Buoy Lines,” “Buoy Weak Links” should be changed to “Buoy Line Weak Links” or “Net Panel Weak Links” where appropriate).
2. Ensure that any mention of buoy line weak links includes the following guidance:
  - i) Weak links must be designed such that the bitter end of the buoy line is clean and free of any knots when the link breaks;
  - ii) Splices are not considered to be knots for the purposes of this provision; and
  - iii) Each weak link must be installed as close to each individual buoy, toggle, high-flyer and/or weighted device as operationally feasible.
3. Include that fishermen may not have available for immediate use gillnet or trap/pot gear unless it complies with ALWTRP-specific requirements.
4. Define “bitter end” in 50 CFR 229.2 as follows: “Bitter end means the loose end of a line that has detached from a weak link.”
5. Define “bottom portion of the line” in 50 CFR 229.2 as follows: “Bottom portion of the line means, for buoy lines, the portion of the line in the water column that is closest to the fishing gear.”
6. Change mention of “rope of appropriate diameter” to “rope of appropriate breaking strength” in the regulations when referring to the techniques for meeting the weak link requirements. It has been established that the diameter of rope should not be used as a mitigation measure.
7. Include reference in the regulations to a brochure that specifies how to comply with gear modification requirements, as well as how to obtain a copy. This will clarify what the NMFS approved techniques are.
8. In the regulatory language, where sinking and/or neutrally buoyant line is required for groundlines, prohibit the attachment of buoys, toggles, or other flotation devices.
9. Specify criteria for establishing a density standard for neutrally buoyant and sinking line, and a procedure for determining specific gravity of line (see Appendix 3-D). Modify the sinking and neutrally buoyant line definitions at 50 CFR 229.2 accordingly.
10. Clarify the sections in the regulatory text describing placement of weak links in the floatline of gillnet panels. Specifically, where appropriate, clarify that weak links should be placed in the center of net panels up to and including 50 fathoms in length, or every 25 fathoms for longer panels.
11. In the regulations for SAM and other applicable areas, when more than one net panel weak link is required, clarify the location of the weak links for net panels up to and including 50 fathoms in length, as well as for those greater than 50 fathoms.
12. Where not already specified for buoy lines and groundlines, clarify the regulatory language to state that fishermen may use “neutrally buoyant and/or sinking line” (e.g., in Cape Cod Bay from January 1 through May 15).
13. Define “sunrise” in 50 CFR 229.2 as follows: “Sunrise means the time of sunrise as determined for the date and location in The Nautical Almanac, prepared by the U.S. Naval Observatory,” and define “sunset” in 50 CFR 229.2 as follows: “Sunset means the time of sunset as determined for the date and location in The Nautical Almanac, prepared by the U.S. Naval Observatory.”
14. Change the “lobster trap/pot” and “lobster trawl” titles and definitions in 50 CFR 229.2 to “trap/pot” and “trap/pot trawl,” respectively, so these are broader in scope and incorporate the current and proposed ALWTRP regulated fisheries.
15. Remove the Gillnet Take Reduction Technology List from the regulations, as reference to this was eliminated in 2002 (67 FR 1300, January, 2002), in order to avoid confusion.
16. Change “Cape Cod Bay Critical Habitat” to “Cape Cod Bay Restricted Area” in “Other Provisions” of ALWTRP regulations.
17. Change the term “Southeast U.S. Restricted Area” to “Southeast U.S. Restricted Area (N and S)” and the term “Southeast U.S. Observer Area,” to “Southeast U.S. Monitoring Area.”
18. Add text in the regulations to clarify how to meet the requirement of anchoring with the holding power of a 22-lb Danforth-style anchor at each end of the net string.
19. Clarify that the Stellwagen Bank/Jeffreys Ledge Restricted Area overlaps the SAM area.
20. Move definition of a “straight set or to fish with gillnet gear in a straight set” from section of regulatory text containing restrictions applicable to southeast Atlantic gillnet gear in 50 CFR 229.32 and add it to definitions section in 50 CFR 229.2. The definition would be modified slightly to note the distinction between a straight set and a strikenet by adding “(not Strikenet)” to the end of the current definition to read as follows: “straight set or to fish with gillnet gear in a straight set means a set in which the gillnet gear is placed in a line in the water column, as opposed to a circular set in which the gillnet is placed to encircle an area in the water column (not Strikenet).” In addition, the definition for “strikenet or to fish with strikenet gear” found in 229.2 would be modified to mean “a method or technique of net deployment which is intended to encircle or enclose an area of water either with the net or by utilizing the shoreline to complete encirclement (not Straight set).”

Exhibit 3-14

ALTERNATIVE 6 FINAL (PREFERRED) MANAGEMENT AREAS

Trap/Pot Fisheries Alternative 6 Final (Preferred)

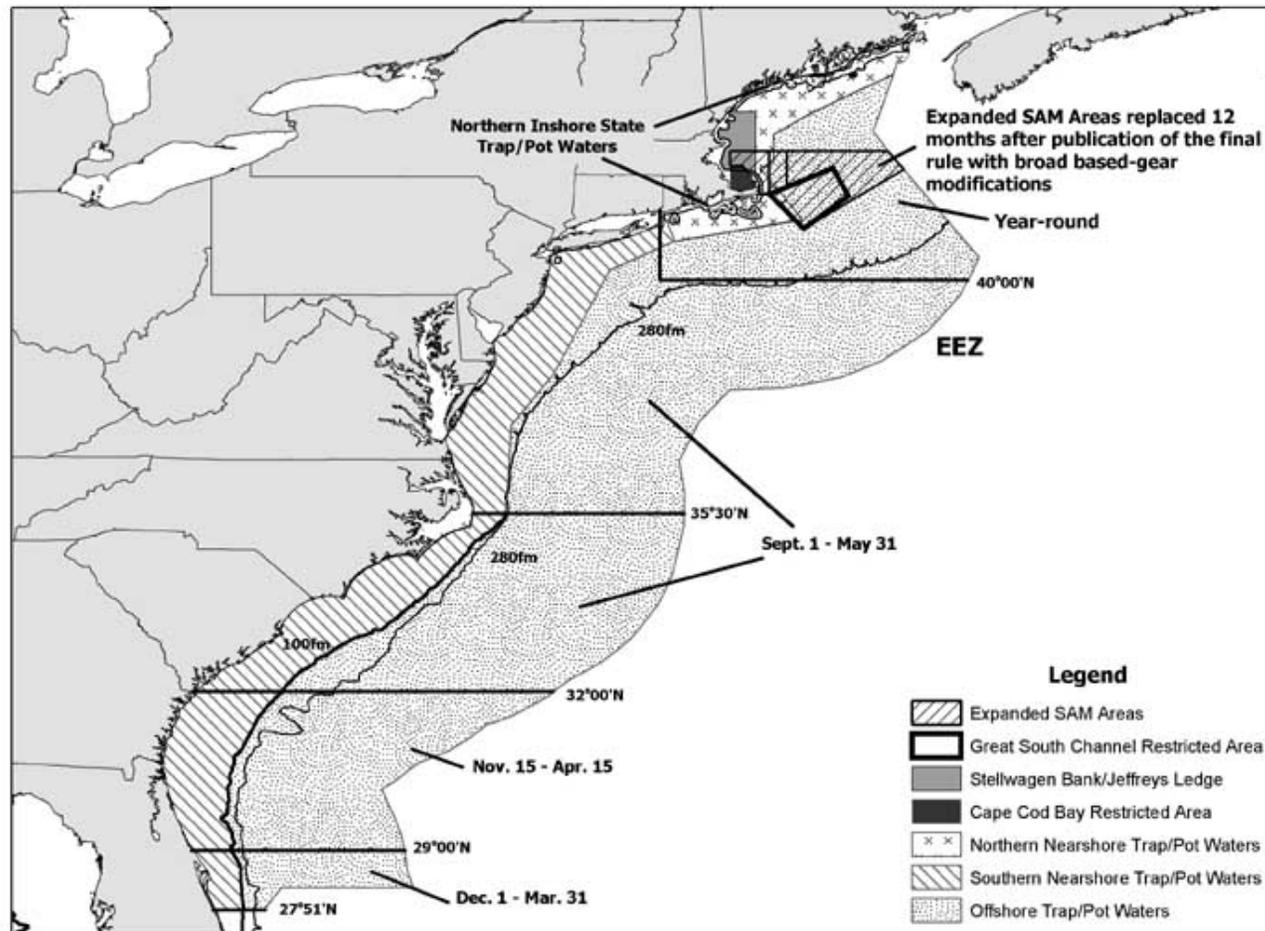


Exhibit 3-14

ALTERNATIVE 6 FINAL (PREFERRED) MANAGEMENT AREAS (cont.)

Gillnet Fisheries Alternative 6 Final (Preferred)

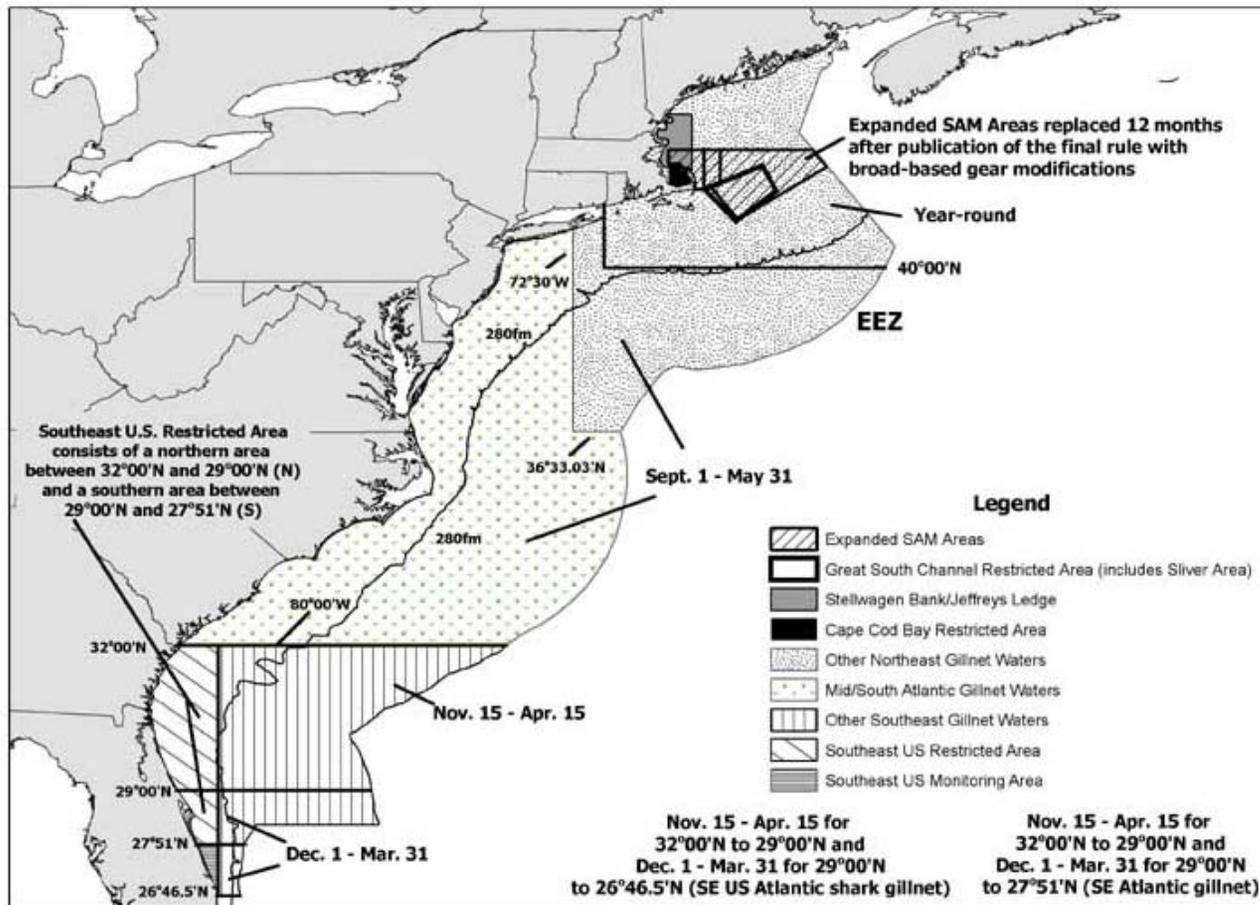
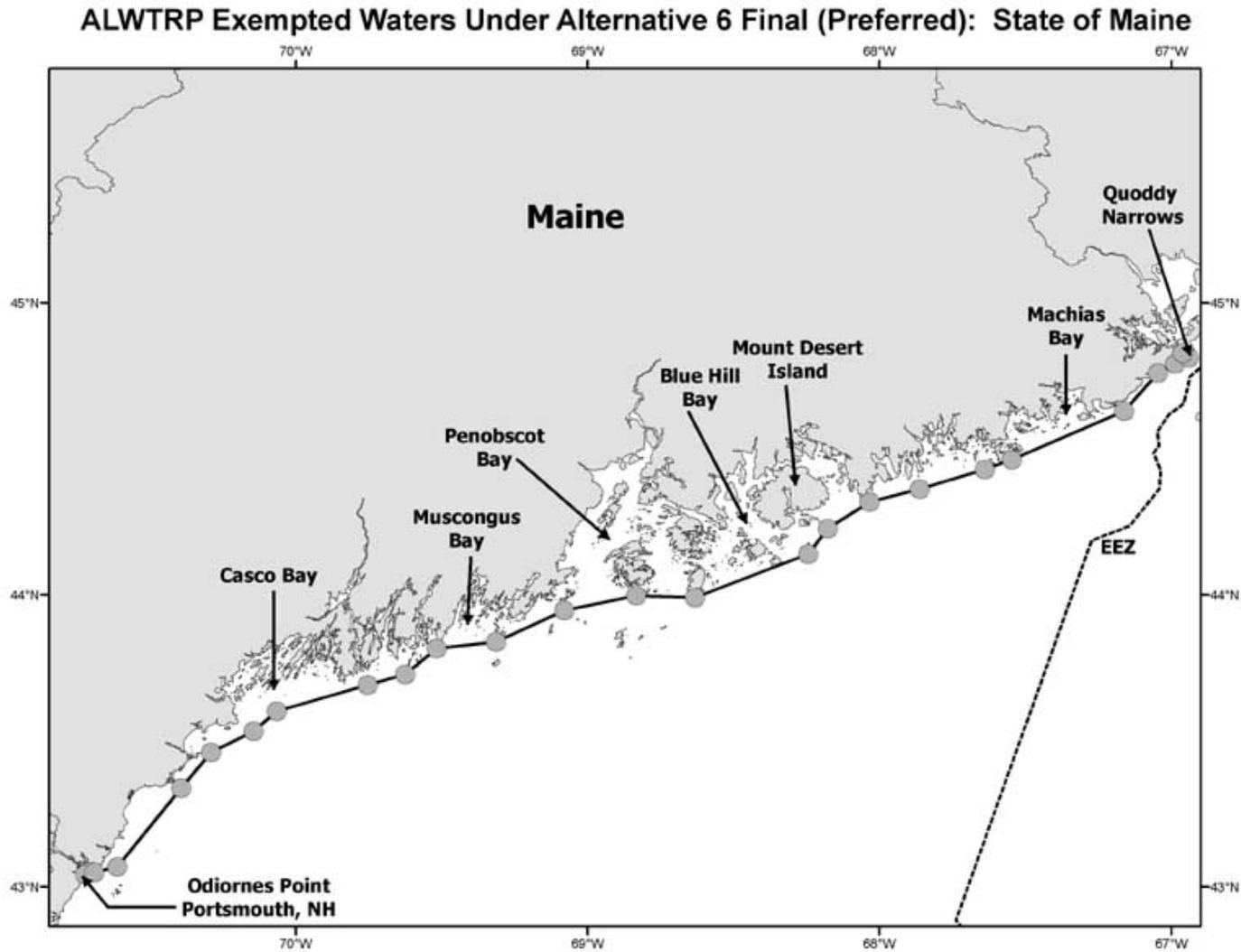


Exhibit 3-15



**Exhibit 3-16**

**ALWTRP EXEMPTED WATERS UNDER ALTERNATIVE 6 FINAL (PREFERRED): NORTHEAST**

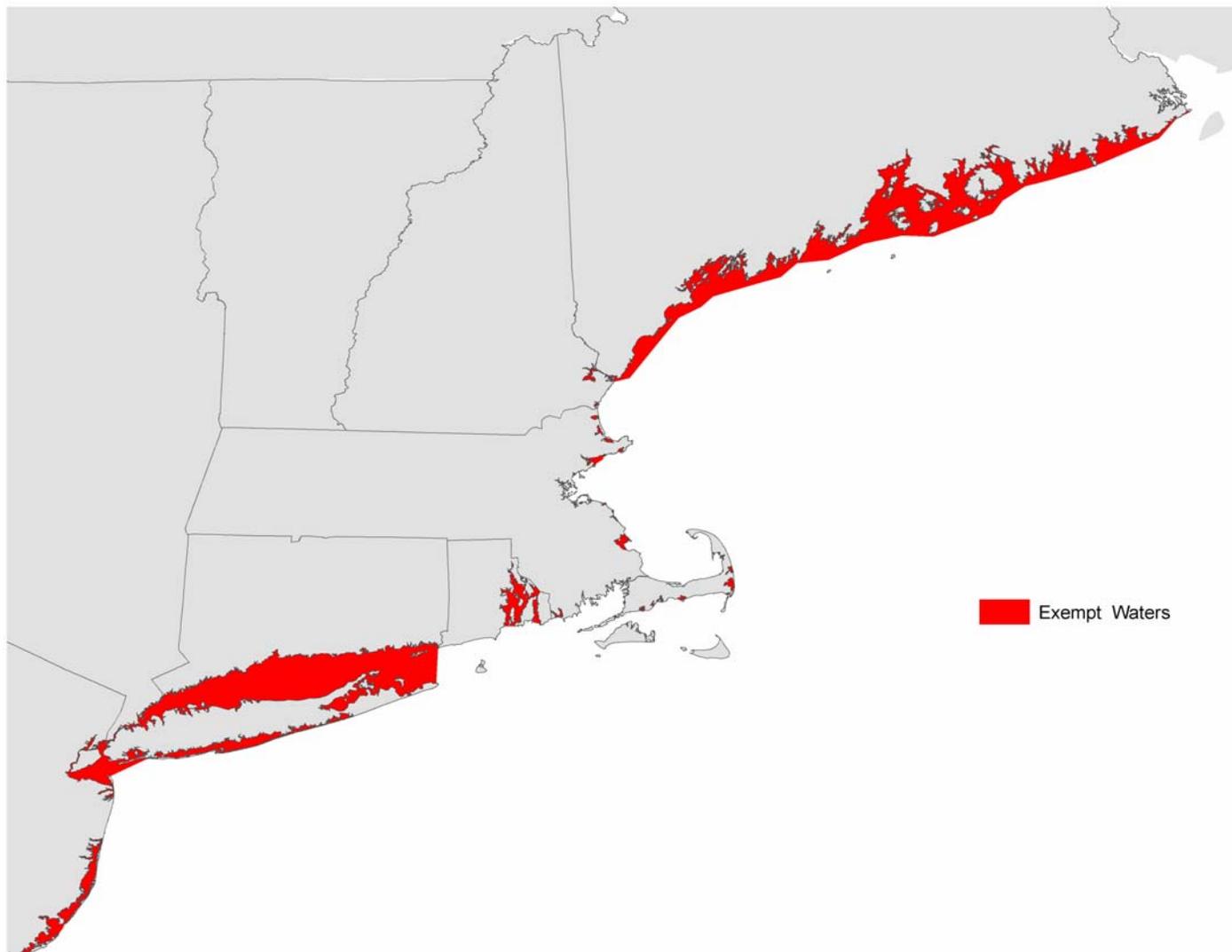
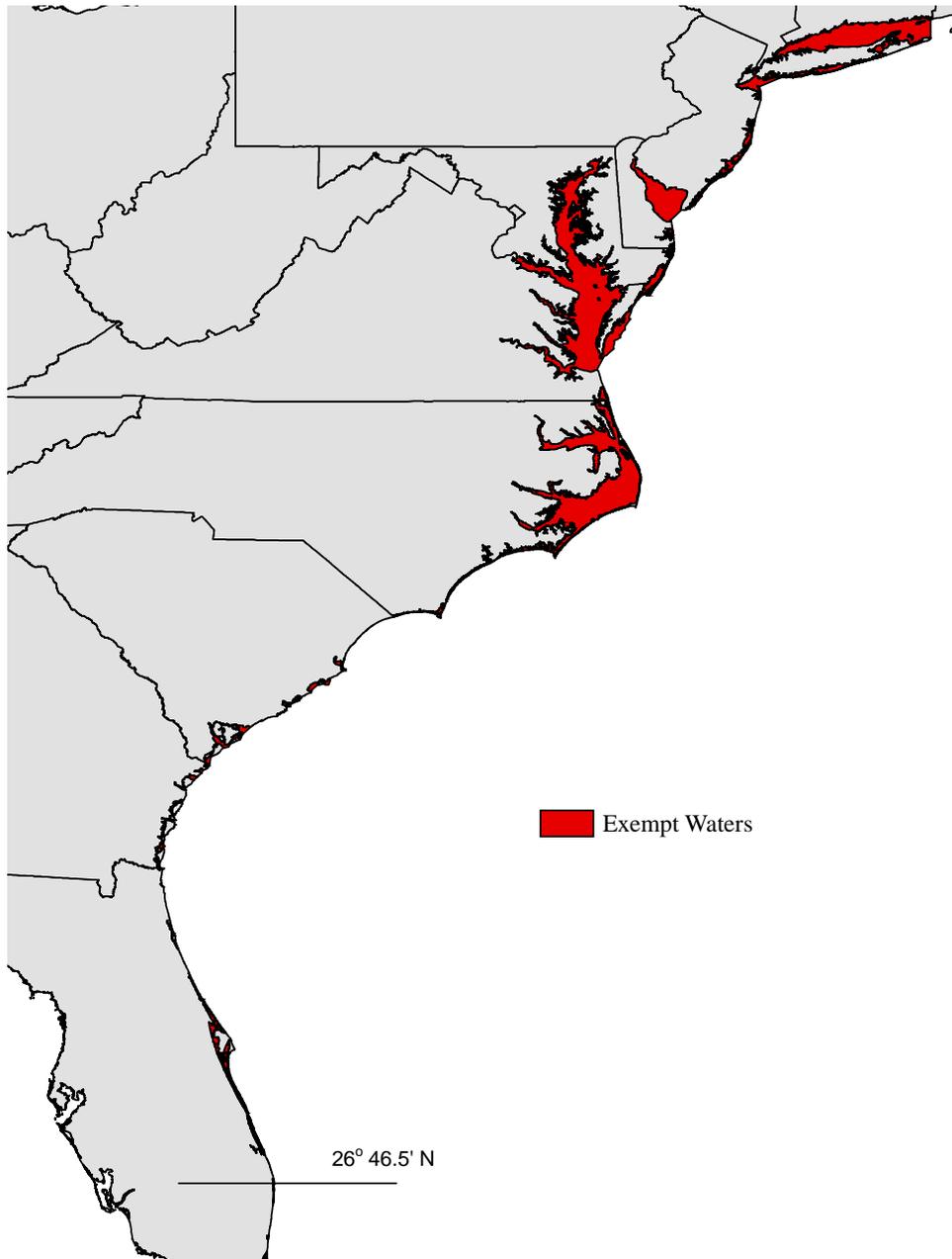


Exhibit 3-17

**ALWTRP EXEMPTED WATERS UNDER ALTERNATIVE 6 FINAL (PREFERRED):  
MID- AND SOUTH ATLANTIC**



### 3.2 ALTERNATIVES CONSIDERED BUT REJECTED

In the scoping efforts conducted for this rulemaking, stakeholders recommended a variety of approaches for reducing entanglement risk to large whales. Scoping discussions included the meeting of the full Take Reduction Team in April 2003 and subsequent ALWTRT subgroup meetings, as well as a series of public meetings held at key locations on the Atlantic coast. Volume II of this EIS includes a summary of the comments received at the scoping meetings.

While NMFS solicited and considered all input from stakeholders, a number of approaches were rejected in the formulation of final regulatory alternatives. Exhibit 3-18 summarizes these approaches and briefly explains why NMFS chose not to integrate the approach into the regulatory alternatives under consideration. The rejected approaches are organized by fishery and region. Stakeholders identified many approaches that would apply to more than one fishery or region; hence, many of the concepts are repeated in the table. The alternatives described are not mutually exclusive; i.e., some were recommended in combination, despite the fact that they are listed and addressed separately in the table.

The rejected alternatives are wide-ranging in content. Concepts that recur frequently in the alternatives include the following:

- maintaining or eliminating the SAM and DAM programs, and the interaction between these decisions and year-round gear requirements;
- changing the SAM program's timing, spatial boundaries, or requirements;
- changing the designation of exempted geographic areas;
- revising the time periods when key requirements are in effect; and
- seasonal closure of all fisheries in critical habitat areas.

<b>Exhibit 3-18</b>		
<b>ALWTRP ALTERNATIVES CONSIDERED AND RATIONALE FOR REJECTION</b>		
<b>Fishery/Region/ Topic</b>	<b>ALTERNATIVE CONSIDERED BUT REJECTED</b>	<b>PRIMARY RATIONALE FOR REJECTION</b>
Lobster – Northern Inshore and Nearshore <sup>1</sup>	Eliminate the DAM and SAM programs.	2
	Allow a 1,100-pound weak link at the junction between the buoy line and surface system, and 600-pound weak link at the surface on buoys in Northern Inshore and Northern Nearshore Lobster Waters.	9
	Prohibit coils of rope (i.e., shanks, wraps of excess buoy line just below the buoy which act as storage) on the buoy line.	10, A
	Phase in a percentage of non-floating groundline annually in “high risk” areas (to be defined) by a certain time period (e.g., increase use of nonfloating groundlines by 25% annually, 100% in four years). <i>(Percentage/year yet to be determined)</i>	6, 9
	Consider effort reductions occurring through Fishery Management Plans (FMPs), either by building in reductions or considering present reduction plans.	9, A
	Consider a requirement to anchor trawls on each end, reducing line profile between traps.	9
	Require weak links on all floatation devices on all buoy lines but not all weighted devices.	2
	Require buoy lines to be composed of floating line on bottom third and sinking or neutrally buoyant line on top two-thirds of each buoy line.	A
	Allow two buoy lines and floating line on lower third of each buoy line in SAM areas in 2004 and beyond.	4, A
	Eliminate DAM and SAM programs and implement sinking or neutrally buoyant line in groundline once a durable line is commercially available; implement in coordination with a buy-back program for floating line.	2, 9
	Eliminate DAM and SAM programs, and adopt specified regulations for “high risk” areas (to be defined) by 2006 including: <ul style="list-style-type: none"> <li>• Year-round requirements;</li> <li>• Current weak link requirements;</li> <li>• Require non-floating groundline to include sinking, neutrally buoyant, or “low profile” (to be defined) line;</li> <li>• Allow two buoy lines; and</li> <li>• Allow floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of each buoy line.</li> </ul> Also, commit to reducing groundline profile (i.e., “low profile” line) in other areas (e.g., rocky bottom areas such as waters east of Booth Bay, except for Mt. Desert Rock) by 2008.	3, 9, 15, A, B
	Maintain DAM program and consider an immediate temporal and/or spatial expansion of SAM area requirements until there are broad-based gear modifications such as implementation of sinking, neutrally buoyant, or “low profile” (to be defined) line in groundlines.	11, 12, B
	Eliminate DAM program and consider an immediate temporal and/or spatial expansion of SAM area requirements until there are broad-based gear modifications such as implementation of sinking, neutrally buoyant, or “low profile” (to be defined) line in groundlines.	11, B
Maintain DAM program and consider an immediate temporal and/or spatial expansion of SAM area requirements until there are broad-based gear modifications such as implementation of sinking, neutrally buoyant, or “low profile” (to be defined) line in groundlines. Allow two buoy lines, and floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of each buoy line in SAM areas.	11, 12, B	

<b>Exhibit 3-18</b>		
<b>ALWTRP ALTERNATIVES CONSIDERED AND RATIONALE FOR REJECTION</b>		
<b>Fishery/Region/ Topic</b>	<b>ALTERNATIVE CONSIDERED BUT REJECTED</b>	<b>PRIMARY RATIONALE FOR REJECTION</b>
Lobster – Northern Inshore and Nearshore <sup>1</sup> (Continued...)	Eliminate DAM program and consider an immediate temporal and/or spatial expansion of SAM area requirements until there are broad-based gear modifications such as implementation of sinking, neutrally buoyant, or “low profile” (to be defined) line in groundlines. Allow two buoy lines and floating line on the bottom third of each buoy line in SAM areas.	11, B
	Maintain DAM program and request voluntary removal of gear until there are broad-based gear modifications such as implementation of sinking, neutrally buoyant, or “low profile” (to be defined) line in groundlines.	C
	Allow 1,100-pound weak links on buoys in Grand Manan Channel due to extreme tides in the area.	13
	Allow 50% or greater floating line on buoy line as long as no floating line is at surface.	7, A
	In Northern Inshore Lobster Waters, maintain option list to acknowledge unique fishing practices along coast.	14
	Eliminate DAM program.	2
	Require multi-trap trawls, i.e., no single traps.	A
	Maintain SAM program requirements year-round.	4, 11, 13, A
	Mandatory DAM, including trap/pots with single buoy line with a 600-lb weak link and no floating groundline.	A, C
	Expand SAM south of Cape Cod, from Nantucket eastward to the boundary of the Great South Channel Restricted Area and then east from there to the Hague Line. The Northern boundary would include Jeffreys Ledge going from the shore of southern Maine eastward to the Hague Line. Initiate in 2004, and then year-round until non-floating line in groundline is implemented and risk reduced from vertical lines.	4, 11, 13, A
	Sinking or neutrally buoyant line between traps by January 2005; 600-lb weak link and sinking line in buoy line except for bottom third.	3, 15
	Adopt the below specified regulations by 2006: <ul style="list-style-type: none"> <li>• Year-round requirements;</li> <li>• Current weak link requirements (on all floatation devices);</li> <li>• Require non-floating groundline to include sinking, neutrally buoyant, or “low profile” (to be defined) line;</li> <li>• One buoy line; and</li> <li>• Allow one-third floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of the buoy line.</li> </ul>	3, 15, A, B
	Add “low profile” rope as an option to the Take Reduction Technology List.	B
Lobster – Offshore <sup>1</sup>	Eliminate the DAM and SAM programs.	2
	Eliminate DAM and SAM programs by 2009 (2007 if substantial financial assistance for industry to convert line) and require neutrally buoyant, sinking, or “low profile” (to be defined) line in groundlines, as well as floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of each buoy line.	2 (regarding 2009), A, B
	Phase in a percentage of non-floating groundline annually in “high risk” areas (to be defined) by a certain time period (e.g., 25% use of non-floating groundlines annually, 100% in four years).	6, 9
	Consider the Lobster Management Area 3 management plan (awaiting action by state/Federal authorities), which includes an approximately 20% active trap reduction with additional active and passive reductions (target is 50%).	9, A

<b>Exhibit 3-18</b>		
<b>ALWTRP ALTERNATIVES CONSIDERED AND RATIONALE FOR REJECTION</b>		
<b>Fishery/Region/ Topic</b>	<b>ALTERNATIVE CONSIDERED BUT REJECTED</b>	<b>PRIMARY RATIONALE FOR REJECTION</b>
Lobster – Offshore <sup>1</sup> (Continued...)	Require buoy lines to be composed of floating line on bottom third and sinking or neutrally buoyant line on top two-thirds of each buoy line.	A
	Prohibit coils of rope (i.e., shanks, wraps of excess buoy line just below the buoy which act as storage) on the buoy line.	16
	Eliminate DAM and SAM programs and implement sinking or neutrally buoyant line in groundline once a durable line is commercially available; implement in coordination with a buy-back program for floating line.	2, 9
	Until there are broad-based gear modifications such as implementation of sinking, neutrally buoyant, or “low profile” (to be defined) line in groundlines: <ul style="list-style-type: none"> <li>• Maintain DAM program and request voluntary removal of gear; or</li> <li>• Require fishermen to remove one buoy line for the 15-day restricted period; and</li> <li>• Keep SAM program and allow two buoy lines and floating line on the bottom third of each buoy line.</li> </ul>	A, B, C
	Maintain DAM program and consider an immediate temporal and/or spatial expansion of SAM area requirements until there are broad-based gear modifications such as implementation of sinking, neutrally buoyant, or “low profile” (to be defined) line in groundlines.	11, 12, B
	Eliminate DAM program and consider an immediate temporal and/or spatial expansion of SAM area requirements until there are broad-based gear modifications such as implementation of sinking, neutrally buoyant, or “low profile” (to be defined) line in groundlines.	11, B
	Maintain DAM program and consider an immediate temporal and/or spatial expansion of SAM area requirements until there are broad-based gear modifications such as implementation of sinking, neutrally buoyant, or “low profile” (to be defined) line in groundlines. Allow two buoy lines, and floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of each buoy line in SAM areas.	11, 12, B
	Eliminate DAM program and consider an immediate temporal and/or spatial expansion of SAM area requirements until there are broad-based gear modifications such as implementation of sinking, neutrally buoyant, or “low profile” (to be defined) line in groundlines. Allow two buoy lines, and floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of each buoy line in SAM areas.	11, B
	Eliminate DAM and SAM programs by 2008 and require neutrally buoyant, sinking, or “low profile” (to be defined) line in groundlines as well as floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of each buoy line.	A, B
	Prohibit coils, toggles (if allowed to fish one-third floating line on the bottom third of each buoy line), and knots on buoy lines.	16
	Eliminate DAM program.	2
	Expand SAM program requirements to year-round.	4, 11, 13, A
	Implement mandatory DAM including trap/pots with single buoy line with a weak link and no floating groundline.	A, C
Expand SAM south of Cape Cod, from Nantucket eastward to the boundary of the Great South Channel Restricted Area and then east from there to the Hague Line. The Northern boundary would include Jeffreys Ledge going from the shore of southern Maine eastward to the Hague Line. Initiate in 2004, and then year-round until non-floating line in groundline is implemented and risk reduced from vertical lines.	4, 11, 13, A	

## Exhibit 3-18

## ALWTRP ALTERNATIVES CONSIDERED AND RATIONALE FOR REJECTION

Fishery/Region/ Topic	ALTERNATIVE CONSIDERED BUT REJECTED	PRIMARY RATIONALE FOR REJECTION
Lobster – Offshore <sup>1</sup> (Continued...)	Prohibit coils of rope (i.e., shanks, wraps of excess buoy line just below the buoy which act as storage) on the buoy line and toggles.	16
	Adopt SAM restrictions, year-round, in all offshore lobster waters by 2008, including: <ul style="list-style-type: none"> <li>• Groundlines and buoy lines must be made entirely of either sinking or neutrally buoyant line;</li> <li>• Weak link must be placed at all buoys with a maximum breaking strength of 1,500 lbs (on all floatation devices);</li> <li>• One buoy line per trawl;</li> <li>• Allow floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of the buoy line.</li> </ul>	A
	Modify SAM areas by 2002 and allow two buoy lines and floating line on the bottom third of the buoy line.	4
Lobster – Southern Nearshore <sup>1</sup>	Eliminate the DAM and SAM programs.	2
	Require buoy lines to be composed of floating line on bottom third and sinking or neutrally buoyant line on top two-thirds of each buoy line.	A
	Eliminate DAM program by 2006 and require neutrally buoyant, sinking, or “low profile” (to be defined) line in groundlines, as well as floating line on bottom third and sinking or neutrally buoyant line on top two-thirds of each buoy line.	3, 15, A, B
	Consider effort reductions occurring through FMPs, Take Reduction Plans, and turtle regulations.	9, A
	Prohibit coils of rope (i.e., shanks, wraps of excess buoy line just below the buoy which act as storage) on the buoy line.	10, A
	Consider a requirement to anchor trawls on each end, reducing line profile between traps, due to habitat effects and gear loss considerations.	9
	Do not require sinking/neutrally buoyant line between traps/pots.	2
	Maintain DAM program and request voluntary removal of gear until there are broad-based gear modifications such as implementation of sinking, neutrally buoyant, or “low profile” (to be defined) line in groundlines.	C
	Eliminate DAM program by 2008 and require floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of each buoy line.	A
	Eliminate DAM program by 2008 (earlier with funding to convert line) and require neutrally buoyant, sinking, or “low profile” (to be defined) line in groundlines, as well as floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of each buoy line.	A, B
	Eliminate DAM program by 2006 and require neutrally buoyant, sinking, or “low profile” (to be defined) line in groundlines, as well as floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of each buoy line.	3, 15, A, B
	Expand DAM Program south of 40° North latitude.	13
	Do not require weak links on single pot gear (southern nearshore lobster waters).	2
	Expand time period to November 15 - April 15 (from December 1 - March 31) when whales are in the area (not year-round).	13
Any requirement should have a gradual phase-in (do not implement a requirement all at once).	7	
Do not eliminate floating rope.	2	
Require multi-trap trawls, i.e., no single traps.	A	
Prohibit coils of rope (i.e., shanks, wraps of excess buoy line just below the buoy which act as storage) on the buoy line and toggles.	10, A	

<b>Exhibit 3-18</b>		
<b>ALWTRP ALTERNATIVES CONSIDERED AND RATIONALE FOR REJECTION</b>		
<b>Fishery/Region/ Topic</b>	<b>ALTERNATIVE CONSIDERED BUT REJECTED</b>	<b>PRIMARY RATIONALE FOR REJECTION</b>
Lobster – Southern Nearshore <sup>1</sup> (Continued...)	Mandatory DAM including trap/pots with single buoy line, a 600-lb weak link, and no floating groundline.	A, C
	Eliminate DAM program.	2
	Introduce sinking or neutrally buoyant line between traps, 600-lb weak link, and sinking line in buoy line except for bottom third, by January 2005.	3, 15, A
	Adopt the following regulations for Southern Nearshore Lobster Waters by 2007: <ul style="list-style-type: none"> <li>• Year-round requirements;</li> <li>• Weak link requirements of less than 600 lbs (on all floatation devices);</li> <li>• Require non-floating groundline to include sinking, neutrally buoyant, or “low profile” (to be defined) line;</li> <li>• Allow the immediate use of weights on the groundline;</li> <li>• Allow only one buoy line; and</li> <li>• Allow floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of the buoy line.</li> </ul>	3, 15, A, B
Black Sea Bass, Scup, Conch/Whelk, and Shrimp (trap/pot) <sup>2</sup>	For the black sea bass fishery which operates south of the current ALWTRP lobster management areas: <ul style="list-style-type: none"> <li>• Require modifications similar to the current Southern Nearshore Lobster Waters. In addition, require modifications currently being proposed for the Southern Nearshore Lobster Waters such as sinking, neutrally buoyant, or “low profile” (to be defined) line in groundlines, as well as floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of each buoy line.</li> <li>• Require modifications similar to the current Southern Nearshore Lobster Waters, including a requirement for floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of each buoy line. Do not require sinking, neutrally buoyant line, or “low profile” (to be defined) line in groundlines due to potential impacts to live bottom.</li> <li>• Do not require weak links on buoy line.</li> <li>• Prohibit coils of rope (i.e., shanks, wraps of excess buoy line just below the buoy which act as storage) on the buoy line.</li> </ul>	2 (regarding not requiring weak links on buoy line)  A, B
	Prohibit coils of rope (i.e., shanks, wraps of excess buoy line just below the buoy which act as storage) on the buoy line.	A
	Allow two buoy lines with floating line on bottom third and sinking or neutrally buoyant line on top two-thirds of each buoy line.	A
	Consider effort reductions occurring through FMPs, either by building in reductions or considering present reduction plans.	9, A
	Consider a requirement to anchor trawls on each end, reducing line profile between traps.	9
	Do not require sinking/neutrally buoyant line between traps/pots.	2
	Expand time period to November 15 - April 15 (from December 1 - March 31) when whales are in the area (not year-round).	13
	Any requirement should have a gradual phase-in (do not implement a requirement all at once).	7
	Do not eliminate floating rope.	2
	Do not require weak links on single traps.	2
	Mandatory DAM including trap/pots with single buoy line, a 600-lb weak link, and no floating groundline.	A, C

<b>Exhibit 3-18</b>		
<b>ALWTRP ALTERNATIVES CONSIDERED AND RATIONALE FOR REJECTION</b>		
<b>Fishery/Region/ Topic</b>	<b>ALTERNATIVE CONSIDERED BUT REJECTED</b>	<b>PRIMARY RATIONALE FOR REJECTION</b>
Black Sea Bass, Scup, Conch/Whelk, and Shrimp (trap/pot) <sup>2</sup> (Continued...)	Expand SAM south of Cape Cod, from Nantucket eastward to the boundary of the Great South Channel Restricted Area and then east from there to the Hague Line. The Northern boundary would include Jeffreys Ledge going from the shore of southern Maine eastward to the Hague Line. Initiate in 2004, and then year-round until non-floating line in groundline is implemented and risk reduced from vertical lines.	4, 11, 13, A
	Introduce sinking or neutrally buoyant line between traps, 600-lb weak link, and sinking line in buoy line except for bottom third, by January 2005.	3, 15, A
	Allow for 1,100-lb weak links on buoys, similar to gillnet gear.	13
	Eliminate DAM program.	2
Red Crab (trap/pot) <sup>2</sup>	Maintain 3,780-pound buoy line weak link requirement as currently required in the Final Rule implementing the red crab FMP.	2, 13
	Require 1,500-pound buoy line weak links.	D
	Allow two buoy lines with floating line on bottom third and sinking or neutrally buoyant line on top two-thirds of each buoy line.	A
	Prohibit coils and toggles (if allowed to fish floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of each buoy line) on buoy lines.	A
	Maintain the fishery as a separate fishery from lobster trap/pot in the ALWTRP regulations and do not use the lobster management areas to define the fishery.	E, D
	Eliminate DAM program.	2
	Maintain SAM program requirements year-round.	4, 11, 13, A
	Prohibit coils of rope (i.e., shanks, wraps of excess buoy line just below the buoy which act as storage) on the buoy line and toggles.	A
Adopt SAM restrictions, year-round, in Offshore Waters by 2008: <ul style="list-style-type: none"> <li>• Groundlines and buoy lines must be made entirely of either sinking or neutrally buoyant line;</li> <li>• Weak link must be placed at all buoys with a maximum breaking strength of 1,500 lbs (on all flotation devices);</li> <li>• One buoy line per trawl;</li> <li>• Allow floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of the buoy line.</li> </ul>	A, D	
Hagfish (trap/pot) <sup>2</sup>	Allow two buoy lines with floating line on bottom third and sinking or neutrally buoyant line on top two-thirds of each buoy line.	A
	Prohibit coils of rope (i.e., shanks, wraps of excess buoy line just below the buoy which act as storage) on the buoy line.	A
	Require multi-trap trawls (i.e., no single traps) for Northern Inshore and Nearshore Waters.	A
	Eliminate DAM program.	2
	Maintain SAM program requirements year-round.	4, 11, 13, A

<b>Exhibit 3-18</b>		
<b>ALWTRP ALTERNATIVES CONSIDERED AND RATIONALE FOR REJECTION</b>		
<b>Fishery/Region/ Topic</b>	<b>ALTERNATIVE CONSIDERED BUT REJECTED</b>	<b>PRIMARY RATIONALE FOR REJECTION</b>
Hagfish (trap/pot) <sup>2</sup> (Continued...)	Prohibit coils of rope (i.e. shanks, wraps of excess buoy line just below the buoy which act as storage) on the buoy line and toggles.	A
	Adopt the following in Northern Inshore and Nearshore Waters by 2006: <ul style="list-style-type: none"> <li>• Year-round requirements;</li> <li>• Current weak link requirements (on all flotation devices);</li> <li>• Require non-floating groundline to include sinking, neutrally buoyant or “low profile” (to be defined) line;</li> <li>• One buoy line;</li> <li>• Allow buoy lines with floating line on bottom third and sinking or neutrally buoyant line on top two-thirds of each buoy line.</li> </ul>	3, 15, A, B
	Adopt SAM restrictions, year-round, in Offshore Waters by 2008: <ul style="list-style-type: none"> <li>• Groundlines and buoy lines must be made entirely of either sinking or neutrally buoyant line;</li> <li>• Weak link must be placed at all buoys with a maximum breaking strength of 1,500 lbs (on all flotation devices);</li> <li>• One buoy line per trawl;</li> <li>• Allow floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of the buoy line.</li> </ul>	A
	Mandatory DAM including trap/pots with single buoy line, a 600-lb weak link, and no floating groundline.	A, C
	Expand SAM south of Cape Cod, from Nantucket eastward to the boundary of the Great South Channel Restricted Area and then east from there to the Hague Line. The Northern boundary would include Jeffreys Ledge going from the shore of southern Maine eastward to the Hague Line. Initiate in 2004, and then year-round until non-floating line in groundline is implemented and risk reduced from vertical lines.	4, 11, 13, A
	Introduce sinking or neutrally buoyant line between traps, 600-lb weak link, and sinking line in buoy line except for bottom third, by January 2005.	3, 15, A
	Allow two buoy lines with floating line on bottom third and sinking or neutrally buoyant line on top two-thirds of each buoy line.	A
Jonah Crab (trap/pot) <sup>2</sup>	Prohibit coils of rope (i.e., shanks, wraps of excess buoy line just below the buoy which act as storage) on the buoy line.	A
	Require multi-trap trawls (i.e., no single traps) for Northern Inshore and Nearshore Waters.	A
	Prohibit coils of rope (i.e. shanks, wraps of excess buoy line just below the buoy which act as storage) on the buoy line and toggles.	A
	Eliminate DAM program.	2
	Maintain SAM program requirements year-round.	4, 11, 13, A

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<b>ALWTRP ALTERNATIVES CONSIDERED AND RATIONALE FOR REJECTION</b>		
<b>Fishery/Region/ Topic</b>	<b>ALTERNATIVE CONSIDERED BUT REJECTED</b>	<b>PRIMARY RATIONALE FOR REJECTION</b>
Jonah Crab (trap/pot) <sup>2</sup> (Continued...)	Adopt the following in Northern Inshore and Nearshore Waters by 2006: <ul style="list-style-type: none"> <li>• Year-round requirements;</li> <li>• Current weak link requirements (on all flotation devices);</li> <li>• Require non-floating groundline to include sinking, neutrally buoyant or “low profile” (to be defined) line;</li> <li>• One buoy line;</li> <li>• Allow buoy lines with floating line on bottom third and sinking or neutrally buoyant line on top two-thirds of each buoy line.</li> </ul>	3, 15, A, B
	Adopt SAM restrictions, year-round, in Offshore Waters by 2008: <ul style="list-style-type: none"> <li>• Groundlines and buoy lines must be made entirely of either sinking or neutrally buoyant line;</li> <li>• Weak link must be placed at all buoys with a maximum breaking strength of 1,500 lbs (on all flotation devices);</li> <li>• One buoy line per trawl;</li> <li>• Allow floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of the buoy line;</li> <li>• Consider exemption of floating groundlines at 250 fathoms or greater (reconsider if it is shown that whales feed at these depths).</li> </ul>	A
	Mandatory DAM including trap/pots with single buoy line, a 600-lb weak link, and no floating groundline.	A, C
	Expand SAM south of Cape Cod, from Nantucket eastward to the boundary of the Great South Channel Restricted Area and then east from there to the Hague Line. The Northern boundary would include Jeffreys Ledge going from the shore of southern Maine eastward to the Hague Line. Initiate in 2004, and then year-round until non-floating line in groundline is implemented and risk reduced from vertical lines.	4, 11, 13, A
	Introduce sinking or neutrally buoyant line between traps, 600-lb weak link, and sinking line in buoy line except for bottom third, by January 2005.	3, 15, A
Gillnet – Northeast, Anchored <sup>3</sup>	Eliminate the DAM and SAM programs.	2
	Consider effort reductions occurring through FMPs, either by building in reductions or considering present reduction plans.	9, A
	Allow two buoy lines with floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of each buoy line.	A
	Prohibit coils of rope (i.e., shanks, wraps of excess buoy line just below the buoy which act as storage) on the buoy line.	A
	Eliminate DAM and SAM programs by 2006 and require neutrally buoyant line, sinking line or “low profile” line (to be defined) in groundlines, as well as floating line on the bottom third and sinking or neutrally buoyant on the top two-thirds of each buoy line.	3, 15, A, B

<b>Exhibit 3-18</b>		
<b>ALWTRP ALTERNATIVES CONSIDERED AND RATIONALE FOR REJECTION</b>		
<b>Fishery/Region/ Topic</b>	<b>ALTERNATIVE CONSIDERED BUT REJECTED</b>	<b>PRIMARY RATIONALE FOR REJECTION</b>
Gillnet – Northeast, Anchored <sup>3</sup> (Continued...)	Eliminate DAM and SAM programs by 2006 and require neutrally buoyant line, sinking line or “low profile” line (to be defined) in groundlines, SAM net panel weak link modifications, as well as floating line on the bottom third and sinking or neutrally buoyant on the top two-thirds of each buoy line.	3, 15, A, B
	Maintain DAM program, including a modification to allow its implementation in critical habitat areas during restricted time periods, and notify fishermen within 24 hours of the DAM trigger being met. Plus the following options: <ul style="list-style-type: none"> <li>• Mandatory removal of gear; and/or</li> <li>• Require SAM gear modification in a DAM zone.</li> </ul> Effective date would be five days after publication of the rule or other appropriate time period which factors in the weather and distance a vessel is from shore.	C, 12
	Maintain DAM and SAM programs.	12
	Until there are broad-based gear modifications such as implementation of sinking, neutrally buoyant, or “low profile” (to be defined) line in groundlines: <ul style="list-style-type: none"> <li>• Maintain DAM program and request voluntary removal of gear; and</li> <li>• Keep SAM program and allow two buoy lines and floating line on the bottom third of each buoy line.</li> </ul>	A, B, C
	Eliminate DAM program and consider an immediate temporal and/or spatial expansion of SAM area requirements until there are broad-based gear modifications such as implementation of sinking, neutrally buoyant, or “low profile” (to be defined) line in groundlines.	11, B
	Maintain DAM program and consider an immediate temporal and/or spatial expansion of SAM area requirements until there are broad-based gear modifications such as implementation of sinking, neutrally buoyant, or “low profile” (to be defined) line in groundlines.	11, 12, B
	Eliminate DAM program and consider an immediate temporal and/or spatial expansion of SAM area requirements until there are broad-based gear modifications such as implementation of sinking, neutrally buoyant, or “low profile” (to be defined) line in groundlines. Allow two buoy lines and floating line on the bottom third of each buoy line.	11, B
	Maintain DAM program and consider an immediate temporal and/or spatial expansion of SAM area requirements until there are broad-based gear modifications such as implementation of sinking, neutrally buoyant, or “low profile” (to be defined) line in groundlines. Allow two buoy lines and floating line on the bottom third of each buoy line.	11, 12, B
	Eliminate DAM and SAM programs by 2008 and require neutrally buoyant line, sinking line or “low profile” (to be defined) line in groundlines, as well as floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of each buoy line. Expand SAM net panel weak link modifications to “high risk” areas (to be defined).	A, B
	Eliminate DAM and SAM programs sooner than 2006 and require neutrally buoyant line, sinking line or “low profile” line (to be defined) in groundlines, as well as floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of each buoy line.	3, 15, A, B
	Prohibit coils of rope (i.e. shanks, wraps of excess buoy line just below the buoy which act as storage) on the buoy line and toggles.	A
Eliminate DAM program.	2	

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<b>Fishery/Region/ Topic</b>	<b>ALTERNATIVE CONSIDERED BUT REJECTED</b>	<b>PRIMARY RATIONALE FOR REJECTION</b>
Gillnet – Northeast, Anchored <sup>3</sup> (Continued...)	Mandatory DAM, including removal of gillnet gear.	C
	Expand SAM south of Cape Cod, from Nantucket eastward to the boundary of the Great South Channel Restricted Area and then east from there to the Hague Line. The Northern boundary would include Jeffrey's Ledge going from the shore of southern Maine eastward to the Hague Line. Initiate in 2004, and then year-round until non-floating line in groundline is implemented and risk reduced from vertical lines.	4, 11, 13, A
	Expand SAM program requirements to year-round.	4, 11, 13, A
	Adopt SAM restrictions, year-round, to all gillnets by 2006: <ul style="list-style-type: none"> <li>• Groundlines and buoy lines must be made entirely of either sinking or neutrally buoyant line;</li> <li>• Weak link must be placed at all buoys with a maximum breaking strength of 1,100 lbs (on all floatation devices);</li> <li>• One buoy line per string;</li> <li>• Allow floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of the buoy line;</li> <li>• All anchored gillnets, regardless of the number of panels, must be securely anchored with the holding power of at least a 22-lb (10.0 kg) Danforth-style anchor at each end of the net string; and</li> <li>• Each net panel must have a total of five weak links with a maximum breaking strength of 1,100 lbs (498.9 kg). Net panels are typically 50 fathoms in length, but the weak link requirements apply to all variations in panel size. These weak links must include 3 floatline weak links. The placement of the weak links on the floatline must be one at the center of the net panel, and one each as close as possible to each of the bridle ends of the net panel. The remaining two weak links must be placed in the center of each of the up and down lines at the panel ends.</li> </ul>	3, 15, A
Gillnet – Mid- Atlantic, Anchored <sup>4</sup>	Eliminate the DAM program.	2
	Eliminate DAM program by 2006 and require, year-round, neutrally buoyant line, sinking or “low profile” (to be defined) line in groundlines, and floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of each buoy line.	3, 15, A, B
	Eliminate DAM program by 2008 (earlier with funding to convert line) and require, year-round, neutrally buoyant line, sinking or “low profile” (to be defined) line in groundlines, and one-third floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of each buoy line. Exclude those gillnets which are weighted to the bottom of the ocean floor but do not have an anchor attached on either end by: (1) revising the anchored gillnet definition, or (2) creating a new definition for these gillnets. For this gillnet type, expand current anchored gillnet requirements from December 1 to March 31 to a longer time period, on one or both ends, but not year-round, when whales are known to occur seasonally in the area.	A, B, 2 (regarding excluding gillnet gear from requirements)

<b>Exhibit 3-18</b>		
<b>ALWTRP ALTERNATIVES CONSIDERED AND RATIONALE FOR REJECTION</b>		
<b>Fishery/Region/ Topic</b>	<b>ALTERNATIVE CONSIDERED BUT REJECTED</b>	<b>PRIMARY RATIONALE FOR REJECTION</b>
Gillnet – Mid-Atlantic, Anchored <sup>4</sup> (Continued...)	Define those gillnets which are weighted to the bottom of the ocean floor but do not have an anchor attached on either end by: (1) revising the anchored gillnet definition, or (2) creating a new definition for these gillnets. For this gillnet type, don't regulate as an anchored gillnet fishery and consider the following options: <ul style="list-style-type: none"> <li>Implement requirements similar to the Mid-Atlantic driftnet fishery (e.g., no fishing with driftnet gear at night unless that gear is tended; all driftnet gear set by a vessel must be removed from the water and stowed on board the vessel before returning to port);</li> <li>Prohibit fishing these types of nets at night;</li> <li>Expand requirements from December 1 to March 31 to a longer time period, on one or both ends, but not year-round, when whales are known to occur seasonally in the area.</li> </ul>	13, 16
	Consider effort reductions occurring through FMPs, Take Reduction Plans, and turtle regulations.	9, A
	Prohibit coils of rope (i.e., shanks, wraps of excess buoy line just below the buoy which act as storage) on the buoy line.	A
	Maintain DAM program and request voluntary removal of gear until there are broad-based gear modifications such as implementation of sinking, neutrally buoyant, or "low profile" (to be defined) line in groundlines, and floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of each buoy line.	C
	Eliminate DAM program by 2006 and require, year-round, neutrally buoyant, sinking or "low profile" (to be defined) line in groundlines, as well as one-third floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of each buoy line. Exclude those gillnets which are weighted to the bottom of the ocean floor but do not have an anchor attached on either end by: 1) revising the anchored gillnet definition, or 2) creating a new definition for these gillnets. For this gillnet type, expand current anchored gillnet requirements from December 1 - March 31 to a longer time period (on one or both ends of the period) when whales are known to occur in the area.	3, 15, A, B, 2 (regarding excluding gillnet gear from requirements)
	Expand DAM Program south of 40° North Latitude.	13
	Require non-anchored gillnets (other than driftnets) to be anchored or develop another vertical line substitute.	10, A
	Expand time period to November 15 - April 15 (from December 1 - March 31) when whales are in the area (not year-round).	13
	Define nets that are not truly anchored (i.e., stab nets) and do not require these nets to be anchored.	7, E
	Do not combine gillnets that are not truly anchored (i.e., stab nets) with the driftnet fishery. Require that fishermen bring these nets in or anchor them when leaving overnight.	7, E
	Do not eliminate floating rope.	2
	Prohibit coils of rope (i.e. shanks, wraps of excess buoy line just below the buoy which act as storage) on the buoy line and toggles.	A
	Mandatory DAM including removal of gillnet gear.	C

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<b>Fishery/Region/ Topic</b>	<b>ALTERNATIVE CONSIDERED BUT REJECTED</b>	<b>PRIMARY RATIONALE FOR REJECTION</b>
Gillnet – Mid-Atlantic, Anchored <sup>4</sup> (Continued...)	Expand SAM program requirements to year-round.	4, 11, 13, A
	Apply SAM restrictions, year-round, to all gillnets by 2006: <ul style="list-style-type: none"> <li>• Define those gillnets which are weighted to the bottom of the ocean floor but do not have an anchor attached and implement weak link and non-floating line requirements as outlined below;</li> <li>• Groundlines and buoy lines must be made entirely of either sinking or neutrally buoyant line;</li> <li>• Weak link must be placed at all buoys with a maximum breaking strength of 1,100 lbs (on all floatation devices);</li> <li>• One buoy line per string;</li> <li>• Allow floating line on the bottom third and sinking or neutrally buoyant line on the top two-thirds of the buoy line;</li> <li>• All gillnets must return to port with the vessel or be securely anchored, regardless of the number of panels, with the holding power of at least a 22-lb (10.0 kg) Danforth-style anchor at each end of the net string; and</li> <li>• Each net panel must have a total of five weak links with a maximum breaking strength of 1,100 lbs (498.9 kg). Net panels are typically 50 fathoms in length, but the weak link requirements apply to all variations in panel size. These weak links must include 3 floatline weak links. The placement of the weak links on the floatline must be one at the center of the net panel, and one each as close as possible to each of the bridle ends of the net panel. The remaining two weak links must be placed in the center of each of the up and down lines at the panel ends.</li> </ul>	3, 15, A, 17
	Require non-floating line in groundline, net panels with five weak links of no more than 1,100 lbs each, and anchored at each end with the holding power of at least a 22-pound Danforth-style anchor. Requirements apply November 15-March 31.	13 (regarding seasons), 17
Mid-Atlantic Drift Gillnet <sup>4</sup>	Expand requirements to year-round: <ul style="list-style-type: none"> <li>• No fishing with driftnet gear at night unless that gear is tended; and</li> <li>• All driftnet gear set by a vessel must be removed from the water and stowed on board the vessel before returning to port.</li> </ul>	7
	Expand requirements to November 15-March 31 (from current December 1-March 31).	13
Shark Gillnet – Southeast <sup>5</sup>	For the period November 15 through November 30, modify definition of “night” to mean one hour after sunset and one hour prior to sunrise.	2
	Exempt 5-inch or greater stretch mesh gillnet from the current ALWTRP restrictions from March 1 through March 15 for the area 29° North latitude to the southern end of the Restricted area.	2
	Exempt 5-inch or greater stretch mesh gillnet from straight set restrictions from November 15 through November 30 for the area 29° North latitude to the southern end of the Restricted area.	18
	Exempt 5-inch or greater stretch mesh gillnet from the current night definition restrictions from November 15 through November 30 for the area 29° North latitude to the southern end of the Restricted area.	7 (in reference to strikenet restrictions)
	Consider using Vessel Monitoring Systems (VMS) in lieu of observer coverage. Consider the following options: <ul style="list-style-type: none"> <li>• Require VMS during the North Atlantic right whale calving season (November 15- March 31) in lieu of 100 percent observer coverage; or</li> <li>• Require VMS year-round in lieu of 100 percent observer coverage.</li> </ul>	7 (for VMS in calving season) 13 (for seasonal time period)
	Develop a DAM program to protect aggregations of right whales.	13

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<b>Fishery/Region/ Topic</b>	<b>ALTERNATIVE CONSIDERED BUT REJECTED</b>	<b>PRIMARY RATIONALE FOR REJECTION</b>
	From November 1 to April 1, implement gear modifications similar to those for Mid-Atlantic anchored gillnet gear.	9
Gillnet – Southeast <sup>6</sup>	For the period November 15 through November 30, modify definition of “night” to mean one hour after sunset and one hour prior to sunrise.	2
	Exempt 5-inch or less stretch mesh gillnet from the current ALWTRP restrictions from March 1 through March 15 for the area 29° North latitude to the southern end of the Restricted area.	2
	Develop a DAM program to protect aggregations of right whales.	13
ALWTRP Critical Habitat Areas	Adopt seasonal closures to prohibit lobster and gillnet fishing in ALL designated right whale critical habitats during times when whales are known to congregate in those areas.	F, O
	Restrict gillnet fishing in the ALWTRP Great South Channel Sliver Area during the restricted time period (April 1 through June 30) through a closure.	F
	Restrict gillnet fishing in the ALWTRP Great South Channel Sliver Area during the restricted time period (April 1 through June 30) through a gear modification (e.g., SAM gear modifications or SAM net panel modification only).	F
	Change the ALWTRP Cape Cod Bay Critical Habitat restricted area from January 1-May 15 to January 1-April 30 to be consistent with the time period used by the Commonwealth of Massachusetts.	F
	Reanalyze recent right whale sightings data to determine whether the ALWTRP Critical Habitat Areas should be reconfigured.	F
	Revisit restrictions in ALWTRP Critical Habitat Areas following reanalysis of sightings data.	F
	Remove current restrictions and eliminate floating rope in groundlines.	F
	Allow the DAM program to be effective in Critical Habitat Areas.	F
Additional Closures	Implement additional closures to fixed-gear fisheries.	O
Exempted Areas	Exempt the sinking, neutrally buoyant, or “low profile” (to be defined) line in groundline requirement off of the shelf edge, rocky areas (e.g., rocky areas off Georges Bank, 17-fathom rocks off NJ), and near wrecks.	2, 9, B
	Exempt the portion of Lobster Management Area 6 that is not included in the exempted waters (i.e., Long Island Sound) and is presently not regulated.	2
	Exempt low-profile groundline requirements for offshore lobstering in deep water extending from the 100-fathom curve (along the Continental shelf and into the canyons), as well as the area encompassing the following points: 43° 12 N      67° 38 W 43° 20 N      68° 00W 43° 12N      68° 20 W 42° 25 N      67° 45 W 42° 25 N      67° 23 W	2, 9
	Exempt Grand Manan Channel from groundline requirements as the tide already reduces profile of line.	9

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<b>ALWTRP ALTERNATIVES CONSIDERED AND RATIONALE FOR REJECTION</b>		
<b>Fishery/Region/ Topic</b>	<b>ALTERNATIVE CONSIDERED BUT REJECTED</b>	<b>PRIMARY RATIONALE FOR REJECTION</b>
Exempted Areas (Continued...)	Exempt the black sea bass trap/pot fishery that occurs south of the NC/SC border from any ALWTRP groundline requirements.	5
	Allow proposed Maine exemptions, but enable DAM program to deal with large whale sightings within the exempted areas.	12
	With respect to the Maine Department of Marine Resources Exemption line: <ul style="list-style-type: none"> <li>• Use the Isle of Shoals rather than the 2 KR buoy.</li> <li>• Exempt landward of the line from S. of Pt. Duck to Scutter Pt.</li> <li>• Exempt Cape Elizabeth to Cape Small and other headland to headland areas.</li> </ul>	2
	Exempt state waters, except for Mt. Desert Rock, from groundline requirements since they are not feeding areas.	1, 9
	Exempt Mt. Desert Rock from groundline requirements as the tide already reduces profile of line.	9
	Exempt sheltered harbors, riverine areas and large bays, except for Casco Bay, Passamaquoddy Bay, and Chesapeake Bay.	13
	Move current exemption line for Narragansett Bay, RI, south to the COLREGS line, but do not move current Sakonnet River, RI, line north to the COLREGS line.	G
	Exempt deep waters (>125 fa) and rocky bottom area in the Mid-Atlantic.	2, 9
Gear Marking	Eliminate current Federal gear marking requirement.	1
	Status quo (no change) until additional research and work is conducted on this issue. Investigate the development of a bar code or implanted smart tag that can be imbedded in the line/surface buoy system. This smart tag may be similar to the RFID (radio frequency identification) tags used in the West Coast crab fishery. The code/tag should be able to be fixed to the line/buoy system by the manufacturer during production or by the fishermen after the line /gear has been purchased. The code/tag can identify the fishermen who can then be interviewed for detailed information or the code/tag can carry specific gear/fishery/area information.	1 (regarding status quo) 9

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<b>Fishery/Region/ Topic</b>	<b>ALTERNATIVE CONSIDERED BUT REJECTED</b>	<b>PRIMARY RATIONALE FOR REJECTION</b>
Gear Marking (Continued...)	Consider different gear marking requirements/strategies than are currently required throughout the ALWTRP management. Considerations include the following: <ul style="list-style-type: none"> <li>• The gear marking system should mark the buoy lines and surface buoys to identify the fishery and the area fished; this will help identify where risk is greatest.</li> <li>• It is most important to know what part of the gear is involved in entangling the whale and less important to know the geographical area. A specific color should be used to identify sinking/ neutrally buoyant groundline to determine whether line-entangled whales are caught in non-floating groundline or buoy line.</li> <li>• Implemented over time and coordinated with rope manufacturers, groundlines and buoy lines should have specific identifying colors. This would allow a quick visual cue regarding gear in which animals are entangled.</li> <li>• All manufactured neutrally buoyant line should be marked to identify it as such, helping determine if this line is successful in reducing the number of entanglements.</li> <li>• Neutrally buoyant line should be marked as such to allow identification for enforcement efforts.</li> <li>• Develop a stainless steel or nylon type band that can be crimped around a line and coded with fishermen identification or fishery/gear/area information for all fixed gear fisheries and waters along eastern seaboard.</li> <li>• Require that all fixed gear (pots/traps/gillnets) be identified with a tag in both state and Federal waters.</li> <li>• Ensure any gear marking scheme is reasonable and cost-effective.</li> <li>• Investigate gear marking currently in place for various FMPs and TRPs.</li> <li>• Implement gear-marking requirements only in areas that are given a “pass” for certain modifications/requirements under the ALWTRP regulations.</li> </ul>	9
	Line should have color coding which varies based on its breaking strength.	9
	Mark groundline and end/buoy lines differently. For example, core colored by manufacturer (do not color outside of line) and implement a long phase-in (8-10 years).	9
	Develop a scheme that permits easy visual determination of the part of the gear system in which the line originated.	7, 9
	All non-floating line should be marked with a similar color or with a similar marking system.	9

## Exhibit 3-18

## ALWTRP ALTERNATIVES CONSIDERED AND RATIONALE FOR REJECTION

Fishery/Region/ Topic	ALTERNATIVE CONSIDERED BUT REJECTED	PRIMARY RATIONALE FOR REJECTION
Gear Marking (Continued...)	Implement technique where owner/vessel can be identified. Also, identify gear characteristics such as sinking line, floating line, gillnet bridle, and area.	9
	Only mark "low-profile" line.	9, B
ALWTRP Regulatory Language Changes	Modify the definition of sinking and neutrally buoyant line and combine these terms into one called "non-floating" line.	H
	Add a new definition for "low profile" line (e.g., 2 feet off the bottom of a test tank).	B
	Define "low-profile" but use the natural environment to define this rather than a test tank.	B
	Define "low-profile" and give fishermen options other than just lead weights, which can pose a safety risk (e.g., any regulation should include the words "operationally feasible").	B
	Clarify in the regulations for NE Gillnet Waters and SAM gear modifications that a net panel is up to and including 50 fathoms, in order to specify the location of the floatline weak links.	16
General Considerations for Reducing Risk Associated with Vertical Line	Consider and/or implement fishing effort reductions.	9, A
	Eliminate latent Federal permits, especially in areas where lobster stocks are crashing.	9, A
	Consider difference in density of buoys along coast.	9, A
	Multi-trap trawls, no single traps.	A
	Reduce effort by reducing the number of fishermen or total number of pots fished but not by limiting the number of traps/rawl or requiring longer trawls.	9, A
	Investigate remote release systems.	9, A
	Require risk-averse buoys by 2009 or else require use of a single buoy line in most areas and potential closure to gear with vertical lines in the SAM area.	A
ALWTRP Boundaries & Seasonality	Require ALWTRP regulations to be in effect out to the 100 fathom line only.	2, I
	Require ALWTRP regulations to be in effect out to the 100 nm line only.	2, J
	When determining seasonal ALWTRP restrictions, keep the Northern Boundary at Long Island, New York.	K
	When determining seasonal ALWTRP restrictions, use Cape Cod Bay as the Northern Boundary.	L
	When determining seasonal ALWTRP restrictions, use the Virginia-North Carolina border for the Southern Boundary.	M
	When determining seasonal ALWTRP restrictions, use Cape Hatteras for the Southern Boundary.	N

## Notes:

- <sup>1</sup> Northeast/Mid-Atlantic American lobster trap/pot fishery in the 2003 List of Fisheries.
- <sup>2</sup> Atlantic mixed species trap/pot fishery in the 2003 List of Fisheries. The trap/pot fisheries affected by this action could include other species (e.g., blue crab), although these species are caught primarily in exempt waters.
- <sup>3</sup> Northeast sink gillnet fishery in the 2003 List of Fisheries
- <sup>4</sup> Mid-Atlantic gillnet fishery in the 2003 List of Fisheries
- <sup>5</sup> Southeastern U.S. Atlantic shark gillnet fishery in the 2003 List of Fisheries
- <sup>6</sup> Southeast Atlantic gillnet fishery in the 2003 List of Fisheries

**Rationale:**

1. Limited risk reduction benefit for large whales
2. Not adequately protective of large whales
3. Excessive economic/compliance burden
4. Preference for long-term (rather than short-term) rulemaking
5. Inequitable (i.e., favors one fishery over another)
6. Too difficult to enforce
7. Redundant with current or proposed requirements
8. Technologically infeasible
9. Further research/investigation needed
10. Reported as operationally difficult for some areas
11. SAM requirements modified to be consistent with current Cape Cod Bay Restricted Area and Dynamic Area Management (DAM) gear modification requirements when area is expanded both temporally and spatially. Also see note "A" below.
12. DAM program eliminated when broad-based requirements implemented or when SAM areas expanded
13. Not supported by available information
14. Not able to implement through present action
15. Time needed for manufacturers to produce adequate supplies to service industry
16. Current fishing practice
17. Five weak links on net panels are proposed when vessels are returning to port without their gear and are required to anchor their nets
18. No such restrictions are currently in place for the fishery

**Additional Notes:**

- A. NMFS will be considering management options to reduce risk associated with vertical lines through a future rulemaking action. At this time, NMFS believes that addressing the risk associated with floating groundline by requiring the use of sinking and/or neutrally buoyant groundline will reduce interactions between large whales and commercial fishing gear and reduce serious injury and mortality of large whales due to incidental entanglement in commercial fishing gear. NMFS and others are currently researching other ways to reduce risk associated with vertical lines, such as investigating the profiles of vertical line with different buoy line configurations (e.g., sinking/neutrally buoyant vs. floating) as well as other modifications (e.g., requiring a minimum number of traps per trawl in certain areas). NMFS and others are also investigating how whales utilize the water column, including the foraging ecology and diving behavior of whales, which will help to determine the appropriate mitigation strategies to reduce entanglement risk of vertical line. NMFS is presently developing management options to further discuss with the ALWTRT and is investigating effort reductions that are occurring through fishery and protected species management plans. Thus, before requiring the implementation of broad-based measures, NMFS believes more information and discussions are needed in order to effectively reduce the risk associated with the profile of vertical line.
- B. Further research and analysis is needed on whether lowering the profile of groundline to depths other than the ocean bottom reduces the potential for large whale entanglement, as well as the appropriate depth and areas where groundlines could be reduced. Specifically, further information is needed on prey distribution, as well as large whale distribution and behavior. Further information and research on the methods for reducing the profile of groundline is also needed. As one step in this process, NMFS conducted a series of workshops in September 2005 to gather information on low profile groundline. The goal of the workshops was to define "low profile" line to make it enforceable as well as operationally feasible for fishermen, while reducing risk of entanglement. In addition, NMFS has solicited comments and information on "low profile" groundline through the DEIS process.
- C. Under the current DAM program, NMFS has three options: 1) require the removal of lobster trap/pot and anchored gillnet gear; 2) allow modified lobster trap/pot and anchored gillnet gear; and/or 3) issue an alert to fishermen requesting the voluntary removal of lobster trap/pot and anchored gillnet gear and requesting that no additional gear be set during the restricted period. NMFS considers several factors when deciding whether to implement restrictions including, but not limited to, the location of the DAM zone with respect to other fishery closure areas, and a review of recent right whale entanglement and mortality data. Any change to the program would require a short-term action. Additionally, any proposed change would need to offer protection equivalent to or greater than the current DAM program. Also see Rationale Number 4.

- D. The red crab fishery is typically conducted at depths in excess of 2,000 feet and the gear deployed to fish in these conditions must be adapted accordingly to endure the elements. Individual trawls can contain up to 200 traps, and the buoy lines required to set and haul this gear must be able to withstand significant loads. As a result, the buoy lines use rope that is larger in both diameter and length than other offshore trap/pot fisheries, and require the support of a more buoyant surface system. Therefore, to prevent the buoys from being pulled underwater by the size and weight of the buoy lines, up to 2,400 pounds of positive buoyancy must be attached to the surface end of the buoy lines, often with individual buoys having 800 pounds of buoyancy each. Moreover, the hydrodynamic forces resulting from currents and wave activity may affect the buoy and, coupled with the buoyancy component, could increase the load on each buoy significantly above 800 pounds. A 1,500-pound weak link requirement would not provide an adequate factor of safety for this situation.
- E. NMFS tried to recognize unique differences in fisheries and areas whenever possible when developing proposed requirements.
- F. NMFS is currently re-evaluating whether critical habitat boundaries should be modified and what management measures may be warranted in critical habitat.
- G. Neither line was moved because the exemption lines were already set at the COLREGS line. NMFS will continue to use the COLREG lines as the exemption lines.
- H. Public scoping indicates that industry prefers keeping two terms to distinguish between line types.
- I. Though the bulk of the Mid-Atlantic right and fin whale sightings occurred between the shore and the 100 fathom line, this coincides with the majority of the survey effort. Thus, it is likely that there are many animals offshore as well. Humpback whales were almost as likely to be seen past 100 fathoms as within the 100 fathom contour. The most risk averse approach is to protect the animals out to the EEZ.
- J. Moving the boundary offshore to 100 nm protects many of the animals sighted, but some are still seen between 100 nm and 200 nm offshore. The most risk averse approach is to protect the animals out to the EEZ.
- K. This boundary line is used to separate the MMPA List of Fisheries Northeast Sink Gillnet & Mid-Atlantic Gillnet fisheries, but is not supported by the whale sightings data, and provides little benefit to the whales biologically.
- L. Though the majority of right whale sightings in the summer occur to the east and north of Cape Cod, humpbacks are commonly seen west of this location in both summer and winter. Thus, as this boundary is for the year-round requirements, it is most risk averse to move the boundary farther to the west for any seasonal requirement.
- M. Though this is a convenient political boundary which separates the Northeast and Southeast NMFS regions, it has no biological or whale sightings basis.
- N. Though this boundary would work biologically, because of the seasonal shift in the distribution of right whales, it is more risk averse to push the boundary farther south, as some animals are still seen in this area outside of the winter season (November-April).
- O. The ALWTRP regulations favor broad-based gear modifications over area closures. Movement and location of whales is often difficult to predict with certainty, making expensive gear modifications potentially more protective than closures of limited areas. Furthermore, closures may produce undesirable consequences such as concentrations of gear just outside of closed areas, which could increase entanglement risks to large whales.

For notes I through N, the dataset used in the analysis of ALWTRP boundaries was drawn from the December 2003 version of the North Atlantic Right Whale Consortium Sighting Database, which is maintained by the University of Rhode Island and supplemented by additional data on humpback and fin whale sightings. It is inclusive of most of the sightings data collected through 2002 with some from 2003, and includes a total of 21,977 right whale sightings records from the 18<sup>th</sup> century through 2003. It also includes 4,414 humpback and 8,098 fin whale sightings records.

### 3.3 REFERENCES

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- Johnson, A.J., G.S. Salvador, J.F. Kenney, J. Robbins, S.D. Kraus, S.C. Landry, and P.J. Clapham, Fishing gear involved in entanglements of right and humpback whales, *Marine Mammal Science* 21(4):635-645, 2005.
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- RFMRP, 2005. Marine mammal abundance survey for North Atlantic right whales in the New York Bight and the Mid Atlantic Region. Riverhead Foundation for Marine Research and Preservation. Draft report to the National Fish and Wildlife Foundation, 28 pp., 2005.

**Appendix 3-A**  
**PROCEDURES FOR DEFINING EXEMPTED WATERS**

## **INTRODUCTION**

With the exception of Alternative 1, the no action alternative, each of the regulatory alternatives under consideration would revise the designation of waters that would be exempt from ALWTRP requirements. This appendix describes the rationale that NMFS applied in developing these designations, both for the alternatives considered in the DEIS (i.e., Alternatives 2 through 6 Draft\*) and for Alternative 6 Final, which NMFS has identified in this FEIS as its preferred alternative.

## **RATIONALE FOR DESIGNATION OF EXEMPTED WATERS UNDER ALTERNATIVES 2, 3\*, 4, 5, AND 6 DRAFT\***

### **Coastal Exempted Areas**

The ALWTRP currently exempts from its requirements all waters landward of the first bridge over any embayment, harbor, or inlet and, from North Carolina to Florida, waters landward of the 72 COLREGS demarcation line (International Regulations for Preventing Collisions at Sea, 1972), as depicted or noted on nautical charts published by NOAA (Coast Charts 1:80,000 scale), and as described in 33 CFR part 80. Some bays that do not have bridges over them are also exempted, including, but not limited to, Long Island Sound and Gardiners Bay. In response to state requests that NMFS consider adding new exempted areas or modifying existing ones under the ALWTRP, NMFS analyzed right, humpback, and fin whale sightings distribution data collected from 1960 to 2002 from two available data sources: the North Atlantic Right Whale Consortium (NARWC) Sightings Database, which is maintained by the University of Rhode Island (URI) and contains data obtained from both dedicated surveys and opportunistic sightings of right whales, as well as supplementary data on sightings of humpback and fin whales; and a right, humpback, and fin whale sightings database compiled by the Maine Department of Marine Resources, which includes sightings reported by the Maine Marine Patrol, whale watch companies, etc. These data were plotted onto NOAA nautical charts using MapTech® Chart Navigator software. The sightings data along the east coast indicated that endangered large whales rarely venture into bays, harbors, or inlets. In light of this information, and to be consistent throughout the east coast, Alternatives 2 through 6 Draft\* would exempt all marine and tidal waters landward of the 72 COLREGS demarcation lines. The 72 COLREGS lines are well known and widely published lines of demarcation. NMFS believes that this change to the exempted waters would be responsive to state requests and appropriate in light of the analysis of sightings data.

In designating exempt areas under Alternatives 2 through 6 Draft\*, NMFS considered a variety of exceptions to the 72 COLREGS demarcation lines. In two areas, Boston Harbor and Gardiners Bay, NMFS chose a different exemption line. The 72 COLREGS line for Boston Harbor is unique in that it forms a triangle by extending from the easternmost tower at Nahant out to the Boston Lighted Horn Buoy "B" and back to the easternmost radio tower at Hull. NMFS' analysis of the URI sightings data found that two right whales have been reported inside the 72 COLREGS line, one in 1996 and another in 2002. Therefore, rather than using the 72 COLREGS line to exempt Boston Harbor, NMFS created another exemption line, which would connect Deer Island to Lovell Island, and Lovell Island to the tip of Hull. Gardiners Bay is

currently exempted according to a line that connects Montauk Point to the eastern tip of Plum Island. This line differs from the 72 COLREGS lines, which outline the inside of the Bay. Under Alternatives 2 through 6 Draft\*, NMFS would continue to use the current exemption line, because the analysis of the sightings database found only one right whale report near the mouth of Gardiners Bay in 1993.

## **Maine**

Currently, the areas that are exempt from ALWTRP requirements in Maine include those waters landward of the first bridge over any embayment, harbor, or inlet. In 2003, the State of Maine asked NMFS to re-examine the delineation of exempted waters in Maine and submitted a suggested exemption line. NMFS analyzed this line with respect to URI's large whale sightings data and current exemption lines in other states. Although NMFS acknowledged that the jagged Maine coastline presents a difficult situation for exempting certain state waters, NMFS concluded that Maine's suggested exemption line did not provide an adequate level of protection; therefore, NMFS proposed an alternate exemption strategy in the DEIS. Specifically, NMFS proposed using the 72 COLREGS line for Casco Bay to mark the exempted waters in that area, as this is the only 72 COLREGS line for Maine. Next, NMFS proposed to use the territorial sea baselines to exempt Little River, Pleasant Bay, Narraguagus Bay, Pigeon Hill Bay, Frenchman Bay, Johns Bay, Muscongus Bay, and Saco Bay. Note that the territorial sea baselines should not be confused with the 12 nautical mile (22.2 km) territorial sea and contiguous zone line. To exempt Penobscot and Blue Hill Bays, NMFS adapted three of the coordinates from the exemption line suggested by Maine. Finally, NMFS created exemption lines for the remaining inlets in Maine, consistent with the exemption lines along the coast, which were drawn across the entrances to harbors, bays, and inlets.

To support its analysis of Maine exempt waters, NMFS considered satellite tracking information for right whales to analyze the occurrence of these animals inside current and proposed exemption lines. Specifically, NMFS reviewed a paper entitled *Satellite-Monitored Movements of the Northern Right Whale* (Mate et al., 1997). According to the findings of Mate et al. (1997), right whales tagged in the Bay of Fundy (BOF) traversed a variety of areas, including banks, basins, upwellings, thermal fronts, and edges of warm core rings, all of which typically exhibit high concentrations of zooplankton. The extensive movements of tagged whales most likely indicate that the whales are searching for food. Based on the information presented in Mate et al. (1997), NMFS concluded that right whales typically do not spend substantial amounts of time in the coastal waters of Maine. Rather, they appear to move into Maine state waters briefly.

## **New Hampshire and Massachusetts**

In New Hampshire and Massachusetts, the waters currently exempt from ALWTRP requirements are those landward of the first bridge over any embayment, harbor, or inlet. In New Hampshire, NMFS proposed to exempt three harbors. Portsmouth Harbor would be exempted according to the 72 COLREGS demarcation line, which is the only 72 COLREGS line found in the state. In addition, NMFS proposed to exempt Rye and Hampton Harbors according

to lines drawn across the headlands that mark their entrances to the sea. NMFS stated that this proposed exemption would be appropriate and would not compromise the overall entanglement risk reduction strategy provided by the ALWTRP because there are no reported sightings of endangered whales inside these areas.

In Massachusetts, NMFS also compared the large whale sightings data to the current delineation of exempted waters. Based on this analysis, the DEIS proposed that the following waters be exempt from ALWTRP requirements landward of the 72 COLREGS demarcation lines: Annisquam Harbor, Gloucester Harbor, Salem Sound (which includes Manchester and Marblehead Harbors), Cape Cod Canal, and Buzzards Bay. Where 72 COLREGS lines do not exist in Massachusetts, NMFS proposed creating exemption lines across most small bays, harbors, and inlets. According to the sightings data, except for the area designated as right whale critical habitat in Cape Cod Bay, right whales are seldom reported in the small bays and harbors along the inner edge of Cape Cod; an exception is Provincetown Harbor, which would not be exempted. NMFS also proposed to exempt small harbors and inlets around the inner and outer edges of Cape Cod that have sandy shoals at their entrances; the analysis of the sightings data indicated that large whales have not been reported in these areas.

### **Rhode Island**

In Rhode Island, all embayments, harbors, and inlets are currently exempt from ALWTRP requirements. NMFS proposed to clarify that the current exemption line coordinates drawn for Narragansett Bay and the Sakonnet River match the 72 COLREGS lines for these waters. To date, two large whales, an entangled humpback and a juvenile fin whale, were reported in Narragansett Bay, inside exempted waters. However, no evidence exists to suggest that the humpback whale became entangled inside the Bay. Preliminary reports on the fin whale indicate that the animal was separated from its mother, entered the Bay, and subsequently stranded in shallow water. Therefore, NMFS proposed no change to the exemption lines for Rhode Island.

### **New York**

In New York, except for New York Harbor, all embayments, harbors, and inlets are currently exempt from ALWTRP requirements. NMFS proposed to maintain these exemptions because the North Atlantic Right Whale Consortium database indicates that sightings of live right, fin, or humpback whales inside these waters are rare. However, NMFS proposed to clarify that the current exemption lines for Long Island Sound, Shinnecock Bay Inlet, Moriches Bay Inlet, Fire Island Inlet, and Jones Inlet coincide with the 72 COLREGS demarcation lines. In addition, NMFS proposed to exempt New York Harbor landward of the 72 COLREGS line; there have been no reported sightings of live right, fin, or humpback whales inside the Harbor.

## **New Jersey**

In New Jersey, the areas currently exempt from ALWTRP requirements (Barnegat Inlet, Beach Haven to Brigantine Inlet, and Cape May Inlet) are nearly identical to those that would be delineated by the 72 COLREGS lines. NMFS proposed to maintain this designation largely unchanged because there have been no reported sightings of live right, fin, or humpback whales inside these waters. NMFS did propose to clarify that the entire coast of New Jersey would be exempted landward of the 72 COLREGS demarcation lines. In the case of Barnegat Inlet, the exemption line would be relocated slightly to the east of the current exemption line, to make it consistent with the 72 COLREGS demarcation line.

## **Delaware Bay**

In Delaware Bay, the current exemption line is located about halfway up the Bay, extending from 39°16.70'N, 75°14.60'W to 39°11.25'N, 75°23.90'W (i.e., from the southern point of Nantuxent Cove, NJ to the southern end of Kelly Island, Port Mahon, DE). NMFS believes that Delaware Bay is comparable to other large bays in the Mid-Atlantic, such as Long Island Sound and Chesapeake Bay, which are currently exempt from ALWTRP requirements landward of the 72 COLREGS line and landward of the first bridge at the mouth of the Bay, respectively. NMFS also believes that large whale sightings inside Delaware Bay are rare and that including the Bay among the waters subject to ALWTRP requirements would not provide a conservation benefit to large whales. Therefore NMFS proposed to redefine the exemption line for Delaware Bay to make it consistent with the 72 COLREGS demarcation line, i.e., a line drawn from Cape May Light to Harbor of Refuge Light, thence to the northernmost extremity of Cape Henlopen.

## **Maryland and Virginia**

In general, along the Maryland and Virginia coasts, the current exemption lines match the 72 COLREGS lines. However, the current exemption line from Chincoteague to Ship Shoal Inlet crosses the three nautical mile (5.6 km) state waters line, which is not consistent with the 72 COLREGS lines. Based on the analysis of the large whale sightings dataset held by URI, NMFS proposed to exempt all bays, harbors, and inlets between Delaware and Chesapeake Bays landward of the 72 COLREGS lines, on the basis that this exemption would not compromise the conservation of large whales protected by the ALWTRP. This proposal included Chesapeake Bay, which currently is exempt landward of the Chesapeake Bay Bridge-Tunnel, located just west of the 72 COLREGS line. Due to the lack of reported large whale sightings in Chesapeake Bay, NMFS did not believe that the slight seaward movement of the current exemption line to the 72 COLREGS line would compromise the goal of reducing the risk of serious injury and mortality from entanglement. As part of this proposal, the current exemption line for Smith Island Inlet would be removed from the exempted waters section of the regulations, since the entrance to this inlet is landward of the 72 COLREGS line.

## **Southeast**

In the Southeast (North Carolina to Florida), NMFS proposed to leave the current exemption lines unchanged. In addition, NMFS proposed to add Captain Sams Inlet (South Carolina) to the exempted waters section of the regulations; these waters are not currently exempt because the inlet lacks a 72 COLREGS line. NMFS acknowledged that right whales occur very close to shore in the Southeast during the winter months, when they are located in their winter calving grounds, and that right whales have been reported in some bays and rivers in the Southeast, particularly in Georgia and Florida. NMFS noted, however, that these occurrences are rare, and that removing the exemption lines for these waters would not provide additional conservation benefit to right whales.

### **Offshore Exempted Areas**

In general, scientific research has shown that most large whales on the east coast typically do not dive to depths as great as 280 fathoms (1,680 ft or 512.1 m). For example, in a three-year study by Mate et al. (1997) to characterize habitat use by right whales during the summer and fall, nine right whales in the Bay of Fundy were tagged with satellite-monitored radio tags; their behaviors were monitored for an average of 21.7 days. According to this study, 80 percent of the locations in which right whales were recorded represent waters less than 100 fathoms (600 ft or 182.9 m) in depth.

Based on a review of the best available scientific information, NMFS determined that exempting waters at depths greater than 275 fathoms (502.9 m) would not increase the risk of large whale entanglements in groundline, because large whales are not believed to dive to these depths. To account for groundline profiles, NMFS added five fathoms (30 ft or 9.1 m) to achieve an offshore exemption depth of 280 fathoms (1,680 ft or 512.1 m). Thus, NMFS proposed to exempt gear in waters deeper than 280 fathoms (1,680 ft or 512.1 m) from the requirement to use sinking and/or neutrally buoyant groundline.

## **EXEMPTED WATERS UNDER ALTERNATIVE 6 FINAL (PREFERRED)**

### **Coastal Exempted Areas**

In response to public comment on the DEIS concerning potential changes to the designation of areas that would be exempt from ALWTRP requirements, NMFS re-examined the current and proposed exemption lines and analyzed updated information on large whale sightings from a number of sources. Specifically, NMFS analyzed data on large whale sightings from 1960 to mid-September 2005 obtained from the North Atlantic Right Whale Consortium (NARWC) Sightings Database, which is maintained by the University of Rhode Island (URI) and contains data obtained from both dedicated surveys and opportunistic sightings of right whales, as well as supplementary data on sightings of humpback and fin whales; data on large whale sightings from 2002 through 2006 that were collected through the Northeast Fisheries Science Center's (NEFSC) systematic aerial surveys and the Northeast U.S. Right Whale Sighting Advisory System (SAS); and data on right, humpback, and fin whale sightings

compiled by the Maine Department of Marine Resources. These data were plotted onto NOAA nautical charts using MapTech® Chart Navigator software; the nautical charts and sightings data were then imported into ArcGIS for easier evaluation. In addition, NMFS considered satellite tracking data for right whales presented in peer-reviewed papers by Mate et al. (1997) and Baumgartner and Mate (2005).

NMFS' analysis of the sightings and satellite tracking data along the east coast indicates that endangered large whales rarely venture into bays, harbors, or inlets. In light of this information, and to be consistent throughout the east coast, Alternative 6 Final (Preferred) would exempt all marine and tidal waters landward of the 72 COLREGS demarcation lines from ALWTRP requirements. These lines provide a well known and widely published point of reference for identifying exempted areas. In several locations, however – Casco Bay (Maine), Portsmouth Harbor (New Hampshire), the state of Massachusetts, and Long Island Sound and Gardiners Bay (New York) – Alternative 6 Final (Preferred) would incorporate exemption lines that vary from the 72 COLREGS lines. The exemption lines for these areas, as well as areas where the 72 COLREGS lines do not exist, are explained below. Graphics depicting the areas that would be exempt from ALWTRP requirements under Alternative 6 Final (Preferred) can be found in Section 3.1.2, Exhibit 3-15 (Exempted Waters: State of Maine), Exhibit 3-16 (Exempted Waters: Northeast), and Exhibit 3-17 (Exempted Waters: Mid- and South Atlantic).

NMFS believes that the changes to the exempted waters incorporated in Alternative 6 Final (Preferred) are responsive to previous state requests and public comments received on the DEIS and proposed rule, and are appropriate given its analysis of the most recent sightings data. NMFS does not believe that adoption of the exemption lines specified under Alternative 6 Final (Preferred) would substantially increase the risk that large whales would become entangled in commercial fishing gear. NMFS' analysis of the sightings data, however, indicates that large whales may occasionally venture into waters that would be exempt from ALWTRP requirements; therefore, NMFS will continue to work in collaboration with state partners to monitor all exempted areas. Should new information become available regarding the risk of entanglement in these areas, NMFS will share it with the ALWTRT to determine whether changes to the designation of exempted areas are warranted.

## **Maine**

Currently, the areas exempt from ALWTRP requirements in Maine include those waters landward of the first bridge over any embayment, harbor, or inlet. In 2003, the State of Maine asked NMFS to re-examine the delineation of exempted waters in Maine and submitted a suggested exemption line. Based on public comments received on the proposed line including the lack of sightings data inside the line, NMFS has reconsidered and re-evaluated Maine's suggested exemption line. This line would begin at the Maine-Canada border and extend south and west along the Maine coastline to Odiornes Point, New Hampshire, connecting a series of 25 buoys and islands that are well-known to the Maine fishing industry. NMFS reanalyzed this line with respect to information on whale sightings that is more current than the information analyzed for the DEIS, including information from the North Atlantic Right Whale Consortium database (covering the years 1960 through mid-September 2005), supplemented by additional data on

humpback and fin whale sightings, as well as the 2002 through 2006 NEFSC systematic aerial survey and SAS data, the Maine Department of Marine Resources large whale sightings data, and the right whale satellite tracking data provided in Mate et al. (1997) and Baumgartner and Mate (2005).

As documented by Cole et al. (2007), NMFS conducted systematic aerial surveys for large whales in Northeast waters during the spring and fall of 2002, the spring and fall of 2003, and year-round from 2004 through 2006. Only a small amount of the overall effort from these surveys occurred within Maine state waters; nonetheless, the survey did not detect right whales within three miles of Maine. On occasion, humpback and fin whales were sighted in these waters. NMFS examined this information in combination with the data from the other sources noted above, evaluating the number of sightings that occurred in waters between Maine's suggested exemption line and the exemption line incorporated in Alternatives 2 through 6 Draft\*. This analysis identified 38 individual sightings in the waters in question, including one right whale, nine humpback whales, and 28 fin whales (these sightings do not include animals that washed ashore dead). All but three of these sightings were recorded in the mid- to late 1970s; two fin whales were sighted in 2003 near the Sheepscot River, and one humpback whale was sighted in 2003 near Muscongus Bay.

As part of its review of Maine's proposal, NMFS also considered satellite tracking information for right whales, analyzing the occurrence of these animals landward of Maine's suggested exemption line. According to the findings of Mate et al. (1997), right whales tagged in the Bay of Fundy (BOF) between 1989 and 1991 traversed a variety of areas, including banks, basins, upwellings, thermal fronts, and edges of warm core rings, all of which typically exhibit high concentrations of zooplankton. The extensive movements of the nine right whales that were the subject of this study most likely indicate that they were searching for food. Of these nine whales, two transmitted signals from coastal Maine waters; one was recorded just south of Petit Manan Point, while the other was recorded in several locations in southern Maine (south of both Saco and Casco Bays, and again south of Muscongus Bay). In addition, NMFS considered a more recent paper (Baumgartner and Mate, 2005) that included the right whale satellite tracking information discussed above in combination with satellite tracking information collected from nine additional right whales tagged in the Bay of Fundy during 2000. NMFS analyzed the satellite tracking information presented in this paper with respect to Maine's suggested exemption line. One right whale that was tagged in 2000 transmitted a signal from the eastern side of Mount Desert Island; another (also tagged in 2000) was recorded near Narraguagus Bay, to the east of Petit Manan Point. The four tagged right whales noted above (from both papers) appear to have been observed near Maine's suggested exemption line. Given the level of error in the satellite readings, however, the precise location (i.e., latitude and longitude) of these sightings cannot be specified, making it difficult to determine whether the whales were sighted landward of that line.<sup>14</sup> In general, however, the satellite tracking information does not show continuous recordings of individual right whale locations that are close to the coast of Maine.

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<sup>14</sup> The accuracy of the locations reported depends upon the number and distribution of the transmissions received from the tags during a satellite pass (Mate et al., 1997). The potential error may range from 150 meters to 1,000 meters from the true location of the point of transmission (Argos, 1990, as reported in Mate et al., 1997).

Based on its review of the information discussed above, NMFS believes that right whales are unlikely to spend substantial amounts of time in the coastal waters of Maine, particularly inshore areas such as bays, harbors, or inlets. Rather, they appear to move into Maine state waters only briefly. In addition, there have been relatively few sightings of right and humpback whales landward of Maine's suggested exemption line. While sightings of fin whales in these waters have been more frequent, the number of fin whales that have been seriously injured or killed in U.S. fisheries in recent years has been low (Waring et al., 2005). Therefore, NMFS believes that adopting the State of Maine's suggested exemption line would provide an adequate level of protection to endangered large whales. Accordingly, Alternative 6 Final (Preferred) incorporates Maine's proposal.

### **New Hampshire**

In New Hampshire, the waters currently exempt from ALWTRP requirements are those landward of the first bridge over any embayment, harbor, or inlet. Alternative 6 Final (Preferred) would expand these waters to include Portsmouth Harbor landward of the final exemption line for Maine, which terminates at Odiornes Point, New Hampshire. In addition, Alternative 6 Final (Preferred) would exempt Rye and Hampton Harbors landward of lines drawn across the headlands that mark their entrances to the sea. NMFS believes that the exemption of these waters is appropriate and would not compromise efforts to reduce entanglement risks because there are no reported sightings of endangered whales in these areas.

### **Massachusetts**

In Massachusetts, Alternative 6 Final (Preferred) would make no change to the waters currently exempt from ALWTRP requirements (i.e., waters landward of the first bridge over any embayment, harbor, or inlet). This is consistent with comments on the DEIS and proposed rule provided by the Massachusetts Division of Marine Fisheries, indicating that the change in exempted waters proposed was too minor to benefit the state's commercial fishermen. In addition, Massachusetts indicated that many of its commercial fishermen already use sinking and/or neutrally buoyant groundline; as of January 2007, state regulations require its use in state waters. In light of these considerations, Alternative 6 Final (Preferred) would make no change in the current specification of exempted areas. If the Massachusetts Division of Marine Fisheries believes a change is warranted in the future, NMFS will revisit this issue with the ALWTRT.

### **Rhode Island**

In Rhode Island, all embayments, harbors, and inlets are currently exempt from ALWTRP requirements. The available data include two sightings of large whales inside exempted waters: an entangled humpback and a juvenile fin whale, both reported in Narragansett Bay. However, no evidence exists to suggest that the humpback whale became entangled inside the Bay. Preliminary reports on the fin whale indicate that the animal was separated from its mother, entered the Bay, and subsequently stranded in shallow water. In light of this information, Alternative 6 Final (Preferred) would make no material changes to the

specification of exempted waters in Rhode Island; it would simply clarify that the current exemption line coordinates drawn for Narragansett Bay and the Sakonnet River match the 72 COLREGS lines for these waters. In addition, Alternative 6 Final (Preferred) would incorporate minor refinements to the exemption line coordinates for Point Judith Pond and Quonochontaug Pond Inlets so that they accurately extend from headland to headland.

### **New York**

In New York, except for New York Harbor, all embayments, harbors, and inlets are currently exempt from ALWTRP requirements. Alternative 6 Final (Preferred) would exempt New York Harbor landward of the 72 COLREGS line, based on the absence of any reported sightings of live right, fin, or humpback whales in these waters. Alternative 6 Final (Preferred) would also clarify that the exemption lines for Shinnecock Bay Inlet, Moriches Bay Inlet, Fire Island Inlet, and Jones Inlet coincide with the 72 COLREGS demarcation lines. In addition, Alternative 6 Final (Preferred) would change the exemption lines for Long Island Sound and Gardiners Bay, removing the existing lines and creating a new line that follows the territorial sea baseline, running north to south from Watch Hill Point, RI, to Montauk Point, NY (through Block Island Sound). The latter change would respond to comments from the New York State Department of Environmental Conservation, the Connecticut Department of Environmental Protection, and the fishing industry, citing safety issues and gear loss concerns associated with using sinking and/or neutrally buoyant groundline in an area known as “The Race” (which is just outside the current Long Island Sound exemption line), as well as the lack of consistency with other exemption lines. Analysis of the NARWC Sightings Database (covering the years 1960 through mid-September 2005), supplemented by additional data on humpback and fin whale sightings, the 2002 through 2006 data collected through the NEFSC systematic aerial surveys and SAS data, and the right whale satellite tracking information provided in Mate et al. (1997) and Baumgartner and Mate (2005) indicates that sightings of large whales in this area are infrequent. In addition, the Riverhead Foundation for Marine Research and Preservation (RFMRP) recently conducted aerial surveys in the waters off Long Island, NY, and east of Block Island from November 2004 to April 2005 (RFMRP, 2005). No large whales were sighted near the entrance to Long Island Sound or Gardiners Bay, further confirming that this area is not important large whale habitat.

### **New Jersey**

In New Jersey, the areas currently exempt from ALWTRP requirements (Barnegat Inlet, Beach Haven to Brigantine Inlet, and Cape May Inlet) are nearly identical to those that would be delineated by the 72 COLREGS lines. There have been no reported sightings of live right, fin, or humpback whales inside these waters. Under Alternative 6 Final (Preferred), the designation of exempted waters would remain largely unchanged; however, NMFS would clarify that the entire coast of New Jersey would be exempted landward of the 72 COLREGS demarcation lines. In the case of Barnegat Inlet, this would necessitate moving the exemption line slightly to the east of the current line, to make it consistent with the 72 COLREGS demarcation line.

## **Delaware Bay**

In Delaware Bay, the current exemption line is located about halfway up the Bay, extending from 39°16.70'N, 75°14.60'W to 39°11.25'N, 75°23.90'W (i.e., from the southern point of Nantuxent Cove, NJ to the southern end of Kelly Island, Port Mahon, DE). NMFS believes that Delaware Bay is comparable to other large bays in the Mid-Atlantic, such as Long Island Sound and Chesapeake Bay, which are currently exempt from ALWTRP requirements landward of the 72 COLREGS line and landward of the first bridge at the mouth of the Bay, respectively. NMFS also believes that large whale sightings inside Delaware Bay are rare, and that including the Bay in waters subject to ALWTRP requirements is unlikely to provide a conservation benefit to large whales. Therefore, Alternative 6 Final (Preferred) would redefine the exemption line for Delaware Bay to make it consistent with the 72 COLREGS demarcation line, i.e., a line drawn from Cape May Light to Harbor of Refuge Light, thence to the northernmost extremity of Cape Henlopen.

## **Maryland and Virginia**

In general, along the Maryland and Virginia coasts, the current exemption lines match the 72 COLREGS lines. However, the current exemption line from Chincoteague to Ship Shoal Inlet crosses the three nautical mile (5.6 km) state waters line, which is not consistent with the 72 COLREGS lines. Based on its analysis of the large whale sightings dataset held by URI, NMFS believes that exempting all waters between Delaware and Chesapeake Bays landward of the 72 COLREGS lines would not compromise the conservation of large whales protected by the ALWTRP. Accordingly, Alternative 6 Final (Preferred) incorporates this approach. Implementation of this alternative would modify the exemption line for Chesapeake Bay, shifting it slightly eastward from the Chesapeake Bay Bridge-Tunnel to the 72 COLREGS line. Consistent with this change, the current exemption line for Smith Island Inlet, which is landward of the 72 COLREGS line, would also be eliminated. Given the absence of reported sightings of large whales in Chesapeake Bay, NMFS believes that these changes would not compromise the goal of reducing the risk that interactions with fishing gear will lead to serious injury or mortality of large whales.

## **Southeast**

In the Southeast (North Carolina to Florida), right whales may occur very close to shore during the winter months, when they are located in their winter calving grounds. NMFS understands that right whales have been reported in some bays and rivers in the Southeast, particularly in Georgia and Florida. However, NMFS believes that these occurrences are rare, and that removing the exemption lines for these waters would not provide additional conservation benefits to right whales. Accordingly, Alternative 6 Final (Preferred) would leave the current ALWTRP exemption lines in the Southeast virtually unchanged, exempting all waters landward of the 72 COLREGS line. The sole exception would be to add Captain Sams Inlet (South Carolina) to the waters exempt from ALWTRP requirements; this area lacks a 72 COLREGS line, and thus is currently subject to ALWTRP regulations.

### **Offshore Exempted Areas**

In general, scientific research has shown that most large whales on the east coast typically do not dive to depths as great as 280 fathoms (1,680 ft or 512.1 m). For example, in a three-year study by Mate et al. (1997) to characterize habitat use by right whales during the summer and fall, nine right whales were tagged in the Bay of Fundy with satellite-monitored radio tags; their behaviors were monitored for an average of 21.7 days. According to this study, 80 percent of the locations in which right whales were recorded represent waters less than 100 fathoms (600 ft or 182.9 m) in depth.

Based on its review of the best available scientific information, NMFS believes that exempting waters at depths greater than 275 fathoms (502.9 m) will not increase the risk of entanglements in groundline, because large whales are not believed to dive to these depths. To account for groundline profiles, NMFS added five fathoms (30 ft or 9.1 m) to this figure, yielding an offshore exemption depth of 280 fathoms (1,680 ft or 512.1 m). In accordance with this approach, Alternative 6 Final (Preferred) would exempt gear in waters deeper than 280 fathoms (1,680 ft or 512.1 m) from the requirement to use sinking and/or neutrally buoyant groundline, as well as net panel weak link and anchoring requirements (gillnet only).

**Appendix 3-B**

**AREAS EXEMPTED FROM ALWTRP REQUIREMENTS  
UNDER ALTERNATIVES 2 THROUGH 6 DRAFT\***

## **Introduction**

Listed below are the areas that would be exempt from ALWTRP requirements under Alternatives 2 through 6 Draft\*. Where applicable, NOAA nautical chart ID numbers and chart names are noted. In addition, where applicable, the sections and paragraphs of the 1972 International Regulations for Preventing Collisions at Sea (72 COLREGS demarcation lines), as depicted or noted on nautical charts published by the National Oceanic and Atmospheric Administration (Coast Charts 1:80,000 scale), and as described in 33 CFR Part 80, are noted.

## **Maine**

44° 49.863&min; N 66° 55.664&min; W TO 44° 48.924&min; N 66° 57.01&min; W (Quoddy Narrows, U.S./Canada border)

44° 45.682&min; N 67° 02.936&min; W TO 44° 44.696&min; N 67° 04.374&min; W (Baileys Mistake and Haycock Harbor)

44° 44.446&min; N 67° 04.858&min; W TO 44° 43.843&min; N 67° 05.909&min; W (Moose Cove)

## **Territorial Sea (Little River) – See Chart 13325\_1 (Quoddy Narrows to Petit Manan Island Maine)**

A line connected by the points (Little Machias Bay, Cross Island Narrows, Machias Bay, Englishman Bay, Chandler Bay, and Eastern Bay):

44° 38.14&min; N 67° 13.788&min; W (Great Head)  
 44° 37.679&min; N 67° 15.424&min; W (Cape Wash)  
 44° 36.659&min; N 67° 16.205&min; W (Scotch Island)  
 44° 36.236&min; N 67° 16.857&min; W (Spruce Point)  
 44° 35.071&min; N 67° 21.177&min; W (Libby Islands)

44° 33.369&min; N 67° 29.787&min; W (Great Spruce Island)  
 44° 31.908&min; N 67° 31.842&min; W (Mark Island)  
 44° 30.637&min; N 67° 31.431&min; W (Head Harbor Island)

A line connected by the points (Eastern Bay):

44° 29.521&min; N 67° 30.935&min; W (Black Head)  
 44° 28.50&min; N 67° 31.878&min; W (Moose Peak)  
 44° 27.332&min; N 67° 34.15&min; W (Little Pond Head)

A line connected by the points (Moosabec Reach and Wahoo Bay):

44° 29.945&min; N 67° 36.228&min; W (The Flying Place)  
 44° 30.196&min; N 67° 36.832&min; W (Beals Island)  
 44° 30.334&min; N 67° 38.573&min; W (Norton Island)

44° 29.729&min; N 67° 42.609&min; W (Tibbett Island)

44° 29.824&min; N 67° 44.107&min; W (Cape Split)

**Territorial Sea (Pleasant Bay, Narraguagus Bay, and Pigeon Hill Bay) – See Chart 13325\_1 (Quoddy Narrows to Petit Manan Island Maine)**

A line connected by the points (Dyer Bay, Gouldsboro Bay, Prospect Harbor, and Schoodic Harbor):

44° 23.69&min; N 67° 53.951&min; W (Petit Manan Point)

44° 23.113&min; N 67° 58.853&min; W (Cranberry Point)

44° 21.416&min; N 68° 01.556&min; W (Spruce Point)

44° 20.131&min; N 68° 02.782&min; W (Schoodic Head)

**Territorial Sea (Frenchman Bay) – See Chart 13312\_1 (Frenchman and Blue Hill Bays and Approaches ME)**

A line connected by these points (Blue Hill Bay and Penobscot Bay):

44° 18.431&min; N 68° 11.337&min; W (Otter Point, Mount Desert Island)

44° 14.504&min; N 68° 11.040&min; W (Baker's Island)

44° 06.000&min; N 68° 20.070&min; W (Rich's Head, Long Island)

43° 59.360&min; N 68° 37.950&min; W (Roaring Bull Ledge, Isle au Haut)

43° 59.830&min; N 68° 50.060&min; W (South Vinalhaven Island)

43° 56.720&min; N 69° 04.890&min; W (Two Bush Channel)

43° 54.903&min; N 69° 13.175&min; W (Mosquito Island)

43° 55.074&min; N 69° 15.579&min; W (Marshall Point, Port Clyde)

**Territorial Sea (Johns Bay and Muscongus Bay) – See Chart 13288\_1 (Monhegan Island to Cape Elizabeth)**

A line connected by these points (Sheepscot and Booth Bay):

43° 48.872&min; N 69° 35.465&min; W (Linekin Neck)

43° 48.206&min; N 69° 35.913&min; W (Ram Island)

43° 47.233&min; N 69° 39.209&min; W (Cape Newagen)

43° 47.168&min; N 69° 39.621&min; W (Cape Newagen)

43° 46.947&min; N 69° 43.097&min; W (Outer Head)

43° 44.658&min; N 69° 45.288&min; W (Salter Island)

43° 42.056&min; N 69° 50.185&min; W (Small Point, Cape Small)

43° 42.298&min; N 69° 51.23&min; W (Bald Head, Cape Small)

**33 CFR 80.110 (72 COLREGS) Casco Bay, ME.**

(a) A line drawn from the southwesternmost extremity of Bald Head at Cape Small to the southeasternmost extremity of Ragged Island; thence to the southern tangent of Jaquish Island thence to Little Mark Island Monument Light; thence to the northernmost extremity of Jewell Island.

(b) A line drawn from the tower on Jewell Island charted in approximate position latitude 43°40.6' N. longitude 70°05.9' W. to the northeasternmost extremity of Outer Green Island.

(c) A Line drawn from the southwesternmost extremity of Outer Green Island to Ram Island Ledge Light; thence to Portland Head Light (Casco Bay). **See Chart 13288\_1 (Monhegan Island to Cape Elizabeth)**

**Territorial Sea (Saco Bay) – See Chart 13286\_1 (Cape Elizabeth to Portsmouth)**

43°23.963&min; N 70°23.882&min; W TO 43°22.401&min; N 70°25.296&min; W (Goosefare Bay)

43°22.198&min; N 70°25.065&min; W TO 43°21.823&min; N 70°24.977&min; W (Stage Island Harbor)

43°21.663&min; N 70°24.977&min; W TO 43°13.267&min; N 70°34.542&min; W (body of water between Cape Porpoise and Bald Head Cliff)

43°11.176&min; N 70°35.867&min; W TO 43°10.984&min; N 70°36.161&min; W (Cape Neddick Harbor)

43°08.115&min; N 70°37.434&min; W TO 43°07.56&min; N 70°38.049&min; W (York Harbor)

43°06.104&min; N 70°39.037&min; W TO 43°05.574&min; N 70°39.369&min; W (Brave Boat Harbor)

**New Hampshire****33 CFR 80.115 (72 COLREGS) Portland Head, ME to Cape Ann, MA.**

(b) A line drawn from the southernmost tower on Gerrish Island charted in approximate position latitude 43 deg. 0.40' N longitude 70 deg. 41.2' W to Whaleback Light; thence to Jeffrey Point Light 2A; thence to the northeasternmost extremity of Frost Point (Portsmouth Harbor). **See Chart 13278\_1 (Portsmouth to Cape Ann NH-MA-ME)**

42°53.691&min; N 70°48.516&min; W TO 42°53.516&min; N 70°48.748&min; W (Hampton Harbor)

42°59.986&min; N 70°44.654&min; W TO 42°59.956&min; N 70°44.737&min; W (Rye Harbor)

**Massachusetts**

42°49.136&min; N 70°48.242&min; W TO 42°48.964&min; N 70°48.282&min; W (Newburyport Harbor)

42°42.145&min; N 70°46.995&min; W TO 42°41.523&min; N 70°47.356&min; W (Plum Island Sound)

42°40.266&min; N 70°43.838&min; W TO 42°39.778&min; N 70°43.142&min; W (Essex Bay)

**33 CFR 80.115 (72 COLREGS) Portland Head, ME to Cape Ann, MA.**

(c) A line drawn from the northernmost extremity of Farm Point to Annisquam Harbor Light (Annisquam Harbor) – **See Chart 13278\_1 (Portsmouth to Cape Ann NH-MA-ME)**

42°39.645&min; N 70°36.715&min; W TO 42°39.613&min; N 70°36.60&min; W (Rockport Harbor)

**33 CFR 80.120 (72 COLREGS) Cape Ann, MA to Marblehead Neck, MA.**

(b) A line drawn from Gloucester Harbor Breakwater Light to the twin towers charted in approximate position latitude 42 deg 35.1' N longitude 42 deg 41.6' N 70 deg 41.6' W (Gloucester Harbor) - **See Chart 13278\_1 (Portsmouth to Cape Ann NH-MA-ME)**

(c) A line drawn from the westernmost extremity of Gales Point to the easternmost extremity of House Island; thence to Bakers Island Light; thence to Marblehead Light (Salem Sound) – **See Chart 13267\_1 (Massachusetts Bay MA)**

42° 20.665&min; N 70° 57.205&min; W TO 42° 20.009&min; N 70° 55.803&min; W and 42° 19.548&min; N 70° 55.436&min; W TO 42° 18.599&min; N 70° 52.961&min; W (Boston Harbor) – **See Chart 13267\_1 (Massachusetts Bay MA)**

42°15.203&min; N 70°46.324&min; W TO 42°15.214&min; N 70°47.352&min; W (Cohasset Harbor)

42°12.09&min; N 70°42.98&min; W TO 42°12.211&min; N 70°43.002&min; W (Scituate Harbor)

42°09.724&min; N 70°42.378&min; W TO 42°10.085&min; N 70°42.875&min; W (New Inlet)

42°04.64&min; N 70° 38.587&min; W TO 42°04.583&min; N 70°38.631&min; W (Green Harbor)

41°59.686&min; N 70°37.948&min; W TO 41°58.75&min; N 70°39.052&min; W (Duxbury Bay/Plymouth Harbor)

41°50.395&min; N 70°31.943&min; W TO 41°50.369&min; N 70°32.145&min; W (Ellisville Harbor)

**33 CFR 80.135 (72 COLREGS) Hull, MA to Race Point, MA.**

(b) A line drawn from Canal Breakwater Light 4 south to the shoreline (Cape Cod Canal)  
– See Chart 13246 (Cape Cod Bay MA)

41°43.941&min; N 70°17.152&min; W TO 41°43.964&min; N 70°13.976&min; W (Barnstable Harbor)

41°45.53&min; N 70°09.387&min; W TO 41°45.523&min; N 70°09.307&min; W (Sesuit Harbor)

41°45.546&min; N 70°07.39&min; W TO 41°45.551&min; N 70°07.32&min; W (Quivett Creek)

41°47.269&min; N 70°01.411&min; W TO 41°47.418&min; N 70°01.306&min; W (Namskaket Creek)

41°47.961&min; N 70°0.561&min; W TO 41°48.07&min; N 70°0.514&min; W (Rock Harbor Creek)

41°48.392&min; N 70°0.286&min; W TO 41°48.483&min; N 70°0.216&min; W (Boat Meadow River)

41°48.777&min; N 70°0.317&min; W TO 41°48.983&min; N 70°0.196&min; W (Herring River)

41°53.922&min; N 70°01.333&min; W TO 41°54.497&min; N 70°01.182&min; W (Blackfish Creek/Loagy Bay)

41°55.518&min; N 70°02.114&min; W TO 41°55.833&min; N 70°02.247&min; W (Duck Creek)

41°55.531&min; N 70°03.550&min; W TO 41°55.311&min; N 70°03.307&min; W (Herring River, inside Wellfleet Harbor)

41°59.481&min; N 70°04.779&min; W TO 41°59.563&min; N 70°04.718&min; W (Pamet River)

42°03.601&min; N 70°14.269&min; W TO 42°03.601&min; N 70°14.416&min; W (Hatches Harbor)

41°48.708&min; N 69°56.319&min; W TO 41°48.554&min; N 69°56.238&min; W (Nauset Harbor)

41°40.685' N 69°56.781' W TO 41°40.884' N 69°56.28' W (Chatham Harbor)

41°39.429' N 69°58.827' W TO 41°39.442' N 69°59.037' W (Stage Harbor)

41°39.80' N 70°03.661' W TO 41°39.626' N 70°03.791' W (Wynchmere Harbor/Saquatucket Harbor)

41°39.764' N 70°05.324' W TO 41°39.666' N 70°05.371' W (Doanes Creek)

41°39.322' N 70°06.914' W TO 41°39.30' N 70°06.952' W (Herring River)

41°39.085' N 70°09.401' W TO 41°39.087' N 70°09.467' W (Swan Pond River)

41°38.837' N 70°11.730' W TO 41°38.643' N 70°11.849' W (Bass River)

41°38.211' N 70°13.25' W TO 41°38.121' N 70°13.247' W (Parkers River)

41°36.575' N 70°15.95' W TO 41°37.452' N 70°17.537' W (Hyannis Harbor)

41°37.49' N 70°21.899' W TO 41°37.408' N 70°21.846' W (East Bay)

41°36.397' N 70°24.017' W TO 41°36.443' N 70°24.075' W (West Bay)

41°36.289' N 70°25.624' W TO 41°36.302' N 70°26.254' W (Cotuit Bay)

41°35.32' N 70°27.047' W TO 41°35.202' N 70°27.041' W (Popponeset Bay)

41°32.862' N 70° 31.614' W TO 41°32.845' N 70°31.715' W (Waquoit Bay)

41°33.156' N 70°32.789' W TO 41°33.07' N 70°32.884' W (Eel Pond)

A line formed by the centerline of the fixed bridges at both entrances (Bournes Pond)

41°32.871' N 70°34.214' W TO 41°32.855' N 70°34.252' W (Green Pond)

A line formed by the centerline of the fixed bridge at entrance (Great Pond)

41°32.542' N 70°36.449' W TO 41°32.535' N 70°36.505' W (Falmouth Inner Harbor)

**33 CFR 80.145 (72 COLREGS) Race Point, MA to Watch Hill, RI.**

(b) A line drawn from Nobska Point Light to Tarpaulin Cove Light on the southeastern side of Naushon Island; thence from the southernmost tangent of Naushon Island to the easternmost extremity of Nashawena Island; thence from the southwestern most extremity of Nashawena Island to the easternmost extremity of Cuttyhunk Island; thence from the southwestern tangent of Cuttyhunk Island to the tower on Gooseberry Neck charted in approximate position latitude 41 deg. 29.1' N. longitude 71 deg. 02.3' W. (Buzzards Bay) – **See Chart 13218\_1 (Martha's Vineyard to Block Island)**

41°30.597' N 71°05.285' W TO 41°30.444' N 71°05.281' W (Westport Harbor)

**Rhode Island**

**33 CFR 80.145 (72 COLREGS) Race Point, MA to Watch Hill, RI.**

(c) A line drawn from Sakonnet Breakwater Light 2 tangent to the southernmost part of Sachuest Point charted in approximate position latitude 41°28.5' N. longitude 71°14.8' W (Sakonnet River).

(d) An east-west line drawn through Beavertail Light between Brenton Point and the Boston Neck shoreline (Narragansett Bay). **See Chart 13218\_1 (Martha's Vineyard to Block Island)**

41°22.441' N 71°30.781' W TO 41°22.447' N 71°30.893' W (Pt. Judith Pond Inlet)

41°21.31' N 71°38.30' W TO 41°21.30' N 71°38.33' W (Ninigret Pond Inlet)

41°19.875' N 71°43.061' W TO 41°19.879' N 71°43.115' W (Quonochontaug Pond Inlet)

41°19.66' N 71°45.75' W TO 41°19.66' N 71°45.78' W (Weekapaug Pond Inlet)

**New York**

**33 CFR 80.155 (72 COLREGS) Watch Hill, RI to Montauk Point, NY.**

(a) A line drawn from Watch Hill Light to East Point on Fishers Island.

(b) A line drawn from Race Point to Race Rock Light; thence to Little Gull Island Light thence to East Point on Plum Island (Long Island Sound). **See Chart 13205\_1 (Block Island Sound and Approaches)**

41°11.40&min; N 72°09.70&min; W TO 41°04.50&min; N 71°51.60&min; W (Gardiners Bay)

**33 CFR 80.160 (72 COLREGS) Montauk Point, NY to Atlantic Beach, NY.**

(a) A line drawn from Shinnecock Inlet East Breakwater Light to Shinnecock Inlet West Breakwater Light 1.

(b) A line drawn from Moriches Inlet East Breakwater Light to Moriches Inlet West Breakwater Light.

(c) A line drawn from Fire Island Inlet Breakwater Light 348 deg. True to the southernmost extremity of the spit of land at the western end of Oak Beach.

(d) A line drawn from Jones Inlet Light 322 deg. true across the southwest tangent of the island on the north side of Jones Inlet to the shoreline.

**33 CFR 80.165 (72 COLREGS) New York Harbor.**

A line drawn from East Rockaway Inlet Breakwater Light to Sandy Hook Light (New York Harbor) – **See Chart 12326\_1 (Fire Island Light to Sea Girt)**

**New Jersey**

**33 CFR 80.170 (72 COLREGS) Sandy Hook, NJ to Tom's River, NJ.**

(a) A line drawn from Shark River Inlet North Breakwater Light 2 to Shark River Inlet South Breakwater Light 1 (Shark River Inlet). **See Chart 12326\_1 (Fire Island Light to Sea Girt)**

(b) A line drawn from Manasquan Inlet North Breakwater Light 4 to Manasquan Inlet South Breakwater Light 3 (Manasquan Inlet). **See Chart 12323\_1 (Sea Girt to Little Egg Inlet)**

(c) A line drawn from Barnegat Inlet North Breakwater Light 4A to the seaward extremity of the submerged Barnegat Inlet South Breakwater; thence along the submerged breakwater to the shoreline (Barnegat Inlet).

**33 CFR 80.501 (72 COLREGS) Tom's River, NJ to Cape May, NJ.**

(a) A line drawn from the seaward tangent of Long Beach Island to the seaward tangent to Pullen Island across Beach Haven and Little Egg Inlets (Beach Haven and Little Egg Inlets). **See Chart 12316\_1 (Little Egg Harbor to Cape May)**

(b) A line drawn from the seaward tangent of Pullen Island to the seaward tangent of Brigantine Island across Brigantine Inlet (Brigantine Inlet).

(c) A line drawn from the seaward extremity of Absecon Inlet (Absecon Inlet).

(d) A line drawn from the southernmost point of Longport at latitude 39°18.2' N. longitude 74°33.1' W. to the northeasternmost point of Ocean City at latitude 39°17.6' N. longitude 74°33.1' W. across Great Egg Harbor Inlet (Great Egg Harbor Inlet).

(e) A line drawn parallel with the general trend of highwater shoreline across Corson Inlet (Corson Inlet).

- (f) A line formed by the centerline of the Townsend Inlet Highway Bridge (Townsend Inlet).
- (g) A line formed by the shoreline of Seven Mile Beach and Hereford Inlet Light (Hereford Inlet).
- (h) A line drawn from Cape May Inlet East Jetty Light 4 to Cape May Inlet West Jetty Light 5 (Cape May Inlet).

**33 CFR 80.503 (72 COLREGS) Delaware Bay.**

A line drawn from Cape May Light to Harbor of Refuge Light; thence to the northernmost extremity of Cape Henlopen (Delaware Bay). **See Chart 12304\_1 (Delaware Bay)**

**Maryland/Virginia**

**33 CFR 80.505 (72 COLREGS) Cape Henlopen, DE to Cape Charles, VA.**

- (a) A line drawn from the seaward extremity of Indian River Inlet North Jetty to Indian River Inlet South Jetty Light (Indian River Inlet). **See Chart 12216\_1 (Cape Henlopen to Indian River Inlet)**
- (b) A line drawn from Ocean City Inlet Light 6, 225° true across Ocean City Inlet to the submerged south breakwater (Ocean City Inlet). **See Chart 12211\_2 (Ocean City Inlet).**
- (c) A line drawn from Assateague Beach Tower Light to the tower charted at latitude 37°52.6' N. longitude 75°26.7' W (Chincoteague Inlet). **See Chart 12210\_1 (Chincoteague Inlet to Great Machipongo Inlet).**
- (d) A line formed by the range of Wachapreague Inlet Light 3 and Parramore Beach Lookout Tower drawn across Wachapreague Inlet (Wachapreague Inlet). **See Chart 12210\_1 (Chincoteague Inlet to Great Machipongo Inlet).**
- (e) A line drawn from the lookout tower charted on the northern end of Hog Island to the seaward tangent of Parramore Beach (Quinby Inlet). **See Chart 12210\_1 (Chincoteague Inlet to Great Machipongo Inlet).**
- (f) A line drawn 207° true from the lookout tower charted on the southern end of Hog Island across Great Machipongo Inlet (Great Machipongo Inlet). **See Chart 12221\_1 (Chesapeake Bay Entrance).**
- (g) A line formed by the range of the two cupolas charted on the southern end of Cobb Island drawn across Sand Shoal Inlet (Sand Shoal Inlet). **See Chart 12221\_1 (Chesapeake Bay Entrance).**
- (h) Except as provided elsewhere in this section from Cape Henlopen to Cape Charles, lines drawn parallel with the general trend of the highwater shoreline across the entrances to small bays and inlets (Assawoman Inlet, Gargathy Inlet, Metompkin Inlet, New Inlet, Ship Shoal Inlet, and Little Inlet). **See Charts 12210\_1 (Chincoteague Inlet to Great Machipongo Inlet) and 12221\_1 (Chesapeake Bay Entrance).**

**33 CFR 80.510 (72 COLREGS) Chesapeake Bay Entrance, VA.**

A line drawn from Cape Charles Light to Cape Henry Light (Chesapeake Bay). **See Chart 12221\_1 (Chesapeake Bay Entrance).**

**North Carolina to Florida**

All marine and tidal waters landward of the 72 COLREGS demarcation line (International Regulations for Preventing Collisions at Sea, 1972), as depicted or noted on nautical charts published by the National Oceanic and Atmospheric Administration (Coast Charts 1:80,000 scale), and as described in 33 CFR Part 80.

32°34.717' N 80°08.565' W TO 32°34.686' N 80°08.642' W (Captain Sams Inlet, SC)

**Appendix 3-C**

**AREAS EXEMPTED FROM ALWTRP REQUIREMENTS  
UNDER ALTERNATIVE 6 FINAL (PREFERRED)**

## Introduction

Under Alternative 6 Final (Preferred), the areas that would be exempt from ALWTRP regulations would differ from those exempted under Alternatives 2 through 6 Draft\*. The principal differences would be expansion of exempted areas in Maine, Long Island Sound, and Gardiners Bay; incorporating Portsmouth Harbor, New Hampshire, into the final exemption line for Maine; and maintenance of the current designation of exempted areas in Massachusetts. Additional detail is provided below. Where applicable, NOAA nautical chart ID numbers and chart names are noted. In addition, where applicable, the sections and paragraphs of the 1972 International Regulations for Preventing Collisions at Sea (72 COLREGS demarcation lines), as depicted or noted on nautical charts published by the National Oceanic and Atmospheric Administration (Coast Charts 1:80,000 scale), and as described in 33 CFR Part 80, are noted.

## Maine

A line connecting the following points (Quoddy Narrows/US-Canada border to Odiornes Pt., Portsmouth, New Hampshire):

- 44° 49.67&min; N 66° 57.77&min; W (R N “2”, Quoddy Narrows)
- 44° 48.64&min; N 66° 56.43&min; W (G “1” Whistle, West Quoddy Head)
- 44° 47.36&min; N 66° 59.25&min; W (R N ”2”, Morton Ledge)
- 44° 45.51&min; N 67° 02.87&min; W (R “28M” Whistle, Baileys Mistake)
- 44° 37.70&min; N 67° 09.75&min; W (Obstruction, Southeast of Cutler)
- 44° 27.77&min; N 67° 32.86&min; W (Freeman Rock, East of Great Wass Island)
- 44° 25.74&min; N 67° 38.39&min; W (R “2SR” Bell, Seahorse Rock, West of Great Wass Island)
- 44° 21.66&min; N 67° 51.78&min; W (R N “2”, Petit Manan Island)
- 44° 19.08&min; N 68° 02.05&min; W (R “2S” Bell, Schoodic Island)
- 44° 13.55&min; N 68° 10.71&min; W (R “8BI” Whistle, Baker Island)
- 44° 08.36&min; N 68° 14.75&min; W (Southern Point, Great Duck Island)
- 43° 59.36&min; N 68° 37.95&min; W (R “2” Bell, Roaring Bull Ledge, Isle Au Haut)
- 43° 59.83&min; N 68° 50.06&min; W (R “2A” Bell, Old Horse Ledge)
- 43° 56.72&min; N 69° 04.89&min; W (G “5TB” Bell, Two Bush Channel)
- 43° 50.28&min; N 69° 18.86&min; W (R “2 OM” Whistle, Old Man Ledge)
- 43° 48.96&min; N 69° 31.15&min; W (GR C “PL”, Pemaquid Ledge)
- 43° 43.64&min; N 69° 37.58&min; W (R “2BR” Bell, Bantam Rock)
- 43° 41.44&min; N 69° 45.27&min; W (R “20ML” Bell, Mile Ledge)
- 43° 36.04&min; N 70° 03.98&min; W (RG N “BS”, Bulwark Shoal)
- 43° 31.94&min; N 70° 08.68&min; W (G “1”, East Hue and Cry)
- 43° 27.63&min; N 70° 17.48&min; W (RW “WI” Whistle, Wood Island)
- 43° 20.23&min; N 70° 23.64&min; W (RW “CP” Whistle, Cape Porpoise)
- 43° 04.06&min; N 70° 36.70&min; W (R N “2MR”, Murray Rock)
- 43° 02.93&min; N 70° 41.47&min; W (R “2KR” Whistle, Kittery Point)
- 43° 02.55&min; N 70° 43.33&min; W (Odiornes Pt., Portsmouth, New Hampshire)

**New Hampshire**

A line from 42° 53.691' N 70° 48.516' W TO 42° 53.516' N 70° 48.748' W (Hampton Harbor)

A line from 42° 59.986' N 70° 44.654' W TO 42° 59.956' N 70° 44.737' W (Rye Harbor)

**Massachusetts**

Those waters landward of the first bridge over any embayment, harbor, or inlet.

**Rhode Island****33 CFR 80.145 (72 COLREGS) Race Point, MA to Watch Hill, RI.**

(c) A line drawn from Sakonnet Breakwater Light 2 tangent to the southernmost part of Sachuest Point charted in approximate position latitude 41° 28.5' N. longitude 71° 14.8' W (Sakonnet River).

(d) An east-west line drawn through Beavertail Light between Brenton Point and the Boston Neck shoreline (Narragansett Bay). **See Chart 13218\_1 (Martha's Vineyard to Block Island)**

A line from 41° 22.441' N 71° 30.781' W TO 41° 22.447' N 71° 30.893' W (Pt. Judith Pond Inlet)

A line from 41° 21.31' N 71° 38.30' W TO 41° 21.30' N 71° 38.33' W (Ninigret Pond Inlet)

A line from 41° 19.875' N 71° 43.061' W TO 41° 19.879' N 71° 43.115' W (Quonochontaug Pond Inlet)

A line from 41° 19.66' N 71° 45.75' W TO 41° 19.66' N 71° 45.78' W (Weekapaug Pond Inlet)

**New York**

A line that follows the territorial sea baseline for Block Island Sound (Watch Hill Point, RI, to Montauk Point, NY) – **See Chart 13205\_1 (Block Island Sound and Approaches)**

**33 CFR 80.160 (72 COLREGS) Montauk Point, NY to Atlantic Beach, NY.**

(a) A line drawn from Shinnecock Inlet East Breakwater Light to Shinnecock Inlet West Breakwater Light 1.

- (b) A line drawn from Moriches Inlet East Breakwater Light to Moriches Inlet West Breakwater Light.
- (c) A line drawn from Fire Island Inlet Breakwater Light 348 deg. True to the southernmost extremity of the spit of land at the western end of Oak Beach.
- (d) A line drawn from Jones Inlet Light 322 deg. true across the southwest tangent of the island on the north side of Jones Inlet to the shoreline.

**33 CFR 80.165 (72 COLREGS) New York Harbor.**

A line drawn from East Rockaway Inlet Breakwater Light to Sandy Hook Light (New York Harbor) – See **Chart 12326\_1 (Fire Island Light to Sea Girt)**

**New Jersey to Florida**

Exempt areas same as those defined under Alternatives 2 through 6 Draft\*.

**Appendix 3-D**

**CRITERIA FOR ESTABLISHING A DENSITY STANDARD  
FOR SINKING AND NEUTRALLY BUOYANT LINE  
AND  
PROCEDURE FOR DETERMINING THE SPECIFIC GRAVITY OF LINE**

## **Introduction**

In response to requests from the fishing industry and line manufacturers for a clearer definition of sinking and/or neutrally buoyant line, NMFS has developed criteria for establishing a density standard for sinking and/or neutrally buoyant line and incorporated the findings in the proposed definitions. In addition, NMFS is proposing a procedure for assessing the specific gravity of line, which would be used by NMFS in the future to determine whether or not a manufactured line is meeting the accepted density standard.

## **Criteria for Establishing a Density Standard for Sinking and/or Neutrally Buoyant Line**

Data selected from 384 stations located along surveys conducted from 1997 through 2001 are summarized in the table below. Coverage is for continental shelf waters from the Gulf of Maine to Key West Florida. Depths ranged from approximately 5 fathoms to 300 fathoms with bottom temperatures ranging from 36.05°F (2.25°C) to 86.63°F (30.35°C).

<b>Statistics for <i>Sigma - t</i> from 384 stations</b>	
Minimum	19.639
Median	24.940
Maximum	27.560
<b>Average</b>	<b>24.950</b>

Based on these data, establishing the criteria for rope based on a *Sigma - t* value of 30.00 would ensure that rope would not float under the conditions described above. Rope manufactured with a density of 1.030 or greater at 60°F (15.56°C) would sink under these conditions.

Data were obtained from the Fisheries and Ecosystems Monitoring and Analysis Division, Northeast Fisheries Science Center, NMFS, Woods Hole, MA., at: <ftp://ftp.wh.who.edu/pub/hydro/> as well as from the National Oceanographic Data Center, Ocean Archive Data Base at: <http://www.nodc.noaa.gov/General/getdata.html>.

## References

- Myers, J.J., C.H. Holm, and R.F. McAllister: Handbook of Ocean and Underwater Engineering. McGraw-Hill, NY, 1969.
- Neumann, G., and W.J. Pierson, Jr.: Principles of Physical Oceanography. Prentice-Hall, Englewood Cliffs, NJ, 1966.

## Procedure for Determining the Specific Gravity of Line

The following procedure was developed for determining the specific gravity of rope samples. It is based on Archimedes' Principle, or the Law of Hydrostatics, which says that any body partially or completely submerged in fluid is acted on by an upward force that is equal to the weight of the fluid displaced by the object in the liquid. The specific gravity of a solid is the ratio of the mass of the body to the mass of an equal volume of water at a standard temperature, in this case 60°F (15.56°C).

Specific gravity can be calculated using the equation:

$$Sg = \frac{A}{A - B}$$

where:  $Sg$  = specific gravity  
 $A$  = dry sample weight  
 $B$  = submerged sample weight

Obtain a sample with a length of approximately 18 inches by cutting cold with a knife. A minimum sample weight of 30 grams (dry weight) is recommended. Steel wire of known weight and density is used to bind the ends of the sample to keep them from fraying as necessary. It is also used to hold the sample in a coil shape and provide weight to assure the sample will be fully submerged when placed in water. The dry weight and submerged weight of the wire must be known in order to allow their affect to be removed from the calculation of specific gravity of the rope sample.

Submerge sample in water of known specific gravity ( $Sg$  of water is measured with a hydrometer to 4<sup>th</sup> decimal place). Water is maintained at 65°F (18.33°C) ± 5°F and the final specific gravity calculation corrected to 60°F (15.56°C). The submerged sample is agitated and weighed on a daily basis for 7 days.

The submerged sample weight from the seventh day is used for the final calculation. The dry sample weight is then obtained after the sample is removed from the water and held at 135°F (57.22°C) for a 36 hour period.

Note that weights *A* & *B* must be corrected to exclude any material attached to the sample as described above for the purpose of binding, sinking, etc. Care must be exercised to insure that no outside influences adversely affect these weight measurements. Finally, corrections for temperature and *Sg* of the water used in the above procedure need to be performed.

Weights are measured using an Adventurer balance, model AV-150 manufactured by Ohaus Corp., Pine Brook, NJ, with the following specifications: capacity - 150g, readability - 0.001g, repeatability - 0.001g, linearity -  $\pm 0.002g$ , sensitivity drift - 10ppm/°C. The balance is allowed to warm up for at least 60 minutes prior to weighing any samples. Standard calibration masses are weighed and recorded on a daily basis during testing to account for any variability in the measurements.