

REGULATORY ALTERNATIVES**CHAPTER 3**

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 increased traps per trawl, requiring gear marking and the use of weak links and/or vertical lines 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 Preferred) from those considered. Below, we describe the regulatory alternatives under consideration (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 Preferred) 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. NMFS also proposes adding new 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. 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 2009, the ALWTRT agreed on a schedule to develop conservation measures for reducing the risk of serious injury and mortality of large whales that become entangled in vertical lines. As provided in the schedule, NMFS committed to publishing a final rule to address vertical line entanglement by 2014. Unlike the broad-scale management approach taken to address entanglement risks associated with groundlines, the approach for the vertical line rulemaking will focus on reducing the risk of vertical line entanglements in finer-scale high impact areas. Using fishing gear characterization data and whale sightings per unit effort (SPUE) data, NMFS developed a model to determine the co-occurrence of fishing gear density and whale density to serve as a guide in the identification of these high risk areas.

NMFS convened a meeting of the ALWTRT's Northeast Subgroup and the Mid-Atlantic/Southeast Subgroup in November 2010 and April 2011, respectively. The subgroups reviewed the co-occurrence model and discussed its implications toward the overall vertical line management strategy. The ALWTRT agreed that NMFS should use the model to develop suites of conservation measures that would ultimately serve as options for the ALWTRT to consider when identifying management alternatives for the EIS. The conservation measures would address vertical line fishery interactions with large whales by reducing the potential for entanglements and minimizing adverse effects if entanglements occur. The results of the model showed that the trap/pot industry accounts for a larger number of vertical line in the water column than the gillnet industry. Therefore the proposed gear modifications and setting requirements target just the trap/pot industry; although, the proposed gear marking scheme would affect both industries.

On June 14, 2011, NMFS published a Notice of Intent (NOI) in the *Federal Register* to announce the agency's intent to prepare an Environmental Impact Statement (EIS) (76 FR 34654). In the NOI, NMFS requested comments and announced multiple public scoping meetings along the east coast to solicit comments on the range of issues to be considered during the preparation of the EIS. In addition to public scoping meetings NMFS solicited proposals from stakeholder groups on where, when, and how to achieve vertical line risk reduction based on the output of the co-occurrence model.

These stakeholder proposals were then presented to the ALWTRT at a January 2012 Full Team meeting. Each proposal was analyzed to determine the level of vertical line and co-occurrence reduction that would be achieved as a result of the proposed measures. The Alternatives are based upon information gathered during public scoping meetings, TRT meetings, and through our state partners. Stakeholders also submitted Vertical Line Risk Reduction Proposals, and the alternatives incorporated some portions of these proposals.

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 public hearings. Volume II of this EIA summarizes the comments received on the DEIS and proposed rule. Volume II also summarizes the comments received during the initial stages of rulemaking at the public scoping meetings.

Exhibit 3-1 summarizes the key gear components of the proposed alternatives, arranging the requirements by lobster management area and geographic region (where appropriate). The discussion below describes each alternative in greater detail, highlighting the differences among alternatives as well as their similarities.

Exhibit 3-1
PROPOSED ALWTRP MANAGEMENT ALTERNATIVES 2-6
(Requirements in addition to current ALWTRP requirements (i.e., No Action alternative))

Location	Component	Alternative 2***	Alternative 3	Alternative 4	Alternative 5	Alternative 6 (Draft)	Alternative 6 (Preferred)
Northeast Region (Proposed Management measures include increasing the number of traps/rawl and/or closures and gear marking)							
Maine State waters		2 to 4	2	= Alt. 2	= Alt. 3	= Alt. 3	= Alt. 3, and ¼ mile buffer around islands
Maine (3-12 mile)		5 or 10	-----	= Alt. 2	= Alt. 3	= Alt. 3	= Alt. 3
Maine (12+ mile)		10 or 20	15	= Alt. 2	= Alt. 3	= Alt. 3	= Alt. 3
Maine (3-6 mile)		-----	3	= Alt. 2	= Alt. 3	= Alt. 3	= Alt. 3
Maine (6-12 mile)		-----	5 or 10	= Alt. 2	= Alt. 3	= Alt. 3	= Alt. 3
MA State Waters		3	= Alt. 2	= Alt. 2	= Alt. 2	2	2
Rhode Island State Waters		3	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	2
NH State Waters		3	Exempt	= Alt. 2	= Alt. 3	= Alt. 3	= Alt. 3
LMA 1 (0-3 mile)		3	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2
LMA 1 (3-12 mile)		10	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2
LMA 1 (12+ mile)		20	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2
LMA1/OC overlap (0-3 mile)		2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2
OC (0-3 mile)		2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2

Location	Component	Alternative 2***	Alternative 3	Alternative 4	Alternative 5	Alternative 6 (Draft)	Alternative 6 (Preferred)
OC (3-12 mile)		10	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2
OC (12+ mile)		20	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2
LMA 2 (0-3 mile)		3	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2
LMA 2 (3-12 mile)		10	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2
LMA 2 (12+ mile)		20	15	= Alt. 2	= Alt. 3	= Alt. 3	= Alt. 3
LMA 2/3 Overlap (12+ mile)		20	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2
LMA 3 (3-12 mile)		10	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2
LMA 3 (12+ mile)		20	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2
<i>Trap/pot Closure Areas</i>							
Jordan Basin (LMA 3, 12+ mile)		20	20	Closed Nov. 1- Jan. 31	Closed Nov. 1- Jan. 31	20	20
Jeffreys Ledge (LMA 1, 3-12+ mile)		10 or 20	10 or 20	Closed Oct. 1- Jan 31	Closed Oct. 1- Jan 31	10 or 20	10 or 20
Cape Cod Bay (LMA 1, 3-12+ mile)		10 or 20	Closed Feb 1- April 30	Closed Jan 1- April 30 (includes portion of OC and abuts GSC)	Closed Jan 1- April 30 (includes portion of OC and abuts GSC)	Closed Jan 1- April 30 (includes portion of OC)	Closed Jan 1- April 30 (includes portion of OC)
Mid-Atlantic Region							
New York, New Jersey, Delaware, Maryland, Virginia, North Carolina		Gear Mark/Monitor	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2
Southeast Region (Measures would apply in the area defined as Southeast US Restricted Area North)							
Florida State waters	Weak links	≤ 200 lbs	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2
	Vertical Line	Breaking strength ≤ 1,500 lbs, must be sinking line and free of objects	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2

Location	Component	Alternative 2***	Alternative 3	Alternative 4	Alternative 5	Alternative 6 (Draft)	Alternative 6 (Preferred)
	Other	Must use one buoy line with one trap, gear mark	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2
Georgia State waters	Weak Links	≤ 600 lbs	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2
	Vertical Line	Breaking strength ≤ 2,200 lbs, must be sinking line and free of objects	= Alt. 2	= Alt. 2		= Alt. 2	= Alt. 2
	Other	Must use one buoy line with one trap, gear mark	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2
South Carolina State waters	Weak links	≤ 600 lbs	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2
	Vertical Line	Breaking strength ≤ 2,200 lbs, must be sinking line and free of objects	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2
	Other	Must use one buoy line with one trap, gear mark	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2
Federal waters	Weak links	Status Quo	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2
	Vertical Line	Must be sinking line and free of objects	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2
	Other	Must use one buoy line with one trap, gear mark, bring gear back to shore at conclusion of trip	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2	= Alt. 2
<p>*** trawls with 5 or less traps will have 1 endline. 'Or' is based on Maine Zone OC = Outer Cape GSC = Great South Channel</p>							

3.1.1 Non-Regulatory Components

NMFS will pursue a number of non-regulatory actions outside of the proposed rulemaking described here. Continued outreach and enforcement efforts are necessary to ensure that fishermen understand the regulations and to improve compliance. In addition to continued and enhanced outreach and enforcement, NMFS will continue to request that their state partners provide gear characterization reports on an annual basis. This will allow NMFS to continue to monitor the amount, location, and type of gear in the water. This will be important so that NMFS can monitor what effects, if any, the action has on fishing effort.

3.1.2 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 3-2 summarizes the current and proposed gear marking scheme.

Exhibits 3-3 and 3-4 present the current management areas for trap/pot and gillnet fisheries.

3.1.3 Alternative 2

Alternative 2 would modify the ALWTRP in a number of ways varying by region.

Northeast Region:

- Increase the number of traps per trawl based on area fished and miles fished from shore [(0-3), (3-12), and (12+)] within current lobster management areas (Exhibit 3-4).
 - Maine waters are managed based on zone and the proposed number of traps per trawl differ based on Maine zone.

Southeast Region:

- Propose to use the Southeast U.S. Restricted Area N, a current gillnet area, as a new trap/pot management area (Exhibit 3-5).
- Throughout the Southeast U.S. Restricted Area N, require the following for trap/pot gear:
 - Traps must be set with one buoy line and not multiple-trap trawls.

- The whole buoy/vertical line (from trap/pot to buoy) should be the same diameter and free of objects (e.g., weights, floats, etc.) and the buoy/vertical line must be made of sinking line.
- The breaking strength of the weak link between the buoy and vertical line does not exceed 600 lbs (Georgia/South Carolina state waters and Federal waters) and 200 lbs (Florida state waters). The breaking strength of the vertical line would not exceed 2,200 lbs (Georgia/South Carolina state waters and Federal waters) and 1,500 lbs (Florida state waters).
- In Federal waters, trap/pot gear must be brought back to shore at the conclusion of each trip.

Coastwide:

- Robust gear marking. See Section 3.1.7 for description of the proposed gear marking scheme.
- Regulatory language changes to better define and clarify previously implemented requirements. See Exhibit 3-6 for description of language changes.

3.1.4 Alternative 3

Northeast Region:

- A combination of NMFS proposed traps per trawl (Exhibit 3-5) and ideas from our State partners.
 - Maine Department of Marine Resources provided a proposal for traps per trawl based on Maine zones and distance from shore that differ from NMFS [(0-3), (3-6), (6-12), and (12+)] (Exhibit 3-7).
 - Massachusetts Division of Marine Fisheries proposed a closure in the Cape Cod Bay Critical Habitat area for all trap/pot fisheries from February 1 through April 30th.
 - Rhode Island Department of Environmental Management requested a minimum 15 trap per trawl requirement in LMA 2 (12+) as opposed to NMFS' 20 trap per trawl limit.
 - New Hampshire Department of Fish and Game requested that New Hampshire state waters be exempt from the proposed trap per trawl limits (Exhibit 3-8) and all current requirements under the Plan.
 - NMFS proposal (Alternative 2) is in effect in all waters and times of year that are not covered by the State proposals.

Southeast Region: Alternative 2 measures apply.

Coastwide: Alternative 2 gear marking scheme and regulatory language changes apply.

3.1.5 Alternative 4

Northeast Region:

- The same as Alternative 2 with the addition of closures in certain areas as proposed by the Conservation/Scientist stakeholder group.
- Three closures for all trap/pot fisheries are included in this proposal (Exhibit 3-9):
 - Jordan Basin (Nov 1 to Jan 31)
 - Jeffreys Ledge (Oct 1 to Jan 31)
 - Massachusetts Restricted Area #1: Area of Cape Cod Bay and Outer Cape to Great South Channel (Jan 1 to April 30)
- NMFS proposal (Alternative 2) is in effect in all waters and times of year that are not covered by the closures.

Southeast Region: Alternative 2 measures apply.

Coastwide: Alternative 2 gear marking scheme and regulatory language changes apply.

3.1.6 Alternative 5

Northeast Region:

- Alternative 5 is a combination of Alternatives 3 and 4. Where the proposed Cape Cod Bay Critical Habitat and Massachusetts Restricted Area #1 closures overlap, the larger closure (Massachusetts Restricted Area #1) in time and area is proposed.
- NMFS proposal (Alternative 2) is in effect in all waters and times of year that are not covered by the state proposals or closures.

Southeast Region: Alternative 2 measures apply.

Coastwide: Alternative 2 gear marking scheme and regulatory language changes apply.

3.1.7 Alternative 6 (Draft)

Northeast Region:

- Alternative 6 is similar to Alternative 5 but only includes one of the three trap/pot closures proposed in Alternative 5 and it is a smaller area than proposed in previous Alternatives (i.e., Massachusetts Restricted Area #2: Cape Cod Bay and Outer Cape Area instead of Cape Cod Critical Habitat or Massachusetts Restricted Area #1).
- NMFS proposal (Alternative 2) is in effect in all waters and times of year that are not covered by the closures.
- NMFS proposal is modified in all Massachusetts state waters to include trawling up to 2 traps per trawl.

Southeast Region: Alternative 2 measures apply.

Coastwide: Alternative 2 gear marking scheme and regulatory language changes apply.

3.1.8 Alternative 6 (Preferred)

In response to comments received on the DEIS and proposed rule, NMFS developed a final preferred alternative that builds on Alternative 6 (Draft). The rationale for the preferred alternative is presented in Chapter 1. The main difference in the Alternatives is attributable to the difference in minimum number of traps per trawl required based on area fished. NMFS considers Alternative 6 (Draft) and Alternative 6 (Preferred) to be similar in reducing entanglement risk despite the differences in Alternatives. As discussed in Chapter 5, the impacts are not substantially different from the range of alternatives discussed in the DEIS. NMFS believes the addition of the Alternative 6 (Preferred) is appropriate in light of the comments on the proposed rule and DEIS. The discussion below highlights changes relative to Alternative 6 (Draft).

In the Northeast Region changes relative to Alternative 6 (Draft) include the following:

- Rhode Island state waters include trawling up to two traps per trawl.
- New Hampshire state waters are only exempt from the minimum number of traps per trawl requirement. All other portions of the ALWTRP would remain in effect.
- Portions of pocket waters in Maine are outside the traditional 3-mile line, in accordance with Federal definition of pocket waters (Exhibit 3-10), NMFS identified as these waters as state waters and as such those fishing in these waters would abide by the state minimum of two traps per trawl as opposed to following the minimum trawl numbers for waters 3-6 miles from shore.
- Three inhabited islands in Maine (Monhegan, Rugged, and Matinicus) would have a ¼ mile buffer delineated around them (Exhibit 3-11). Those fishing in these buffer waters would be able to continue fish using singles.

In the Southeast Region there are no changes relative to Alternative 6 (Draft). The gear marking scheme proposed coastwide would remain the same with the exception that Maine exempt waters would not be required to mark gear as originally proposed.

3.1.9 Proposed Gear Marking Scheme

The current gear marking strategy (implemented in 1997) is inadequate and should be improved. From 1997-2011 there were 499 large whale entanglement events. Gear was retrieved in 170 of these cases; of the cases where gear was retrieved, gear marking led to 51 cases where fishery, location, and date were known. A stronger gear marking strategy would help answer questions such as when and where entanglements occur. Current regulations require one 4" colored mark midway along the buoy line and surface buoys to identify the vessel or fishery. Colors correspond to specific ALWTRP management areas.

The proposed gear marking scheme would maintain the current color combinations but increase the size and frequency of the mark. The new mark must equal 12" in length and buoy lines must be marked three times (top, middle, bottom). A mark for the new Southeast US Restricted Area North would be required for both state and Federal water. This proposal would continue to allow multiple methods for marking line (paint, tape, rope, etc).

The table below outlines the proposed gear marking colors. The line must be marked three times and each mark must total 12" in length. If the mark consists of two colors then each color mark can be 6" for a total mark of 12".

**Exhibit 3-2
PROPOSED GEAR MARKING**

ALWTRP Mgmt Area	***Lobster Mgmt Area	Color
<i>Trap/Pot gear</i>		
Cape Cod Bay Restricted Area	LMA1	Red
Northern Nearshore	LMA1, LMA2, and Outer Cape	Red
Northern Inshore State	LMA1, LMA 2, LMA 2/3, and Outer Cape	Red
Stellwagen Bank/Jeffreys Ledge Restricted Area	LMA1	Red
Great South Channel Restricted Area overlapping with LMA 2 and/or Outer Cape	LMA2 and Outer Cape	Red
Southern Nearshore	LMA 4, LMA 5, LMA 6	Orange
Southeast US Restricted Area North*	State Waters	Blue and Orange
Southeast US Restricted Area North*	Federal Waters	Green and Orange
Offshore	LMA 2/3 and LMA 3	Black
Great South Channel Restricted Area overlapping with LMA 2/3 and/or LMA 3	LMA 2/3 and LMA 3	Black
New Hampshire* and Maine** Exemption Area (Alternative 2-6 Draft only)	LMA 1	Red and Blue
<i>Gillnet gear excluding shark gillnet</i>		

ALWTRP Mgmt Area	***Lobster Mgmt Area	Color
Cape Cod Bay Restricted Area	-----	Green
Stellwagen Bank/Jeffreys Ledge Restricted Area	-----	Green
Great South Channel Restricted Area	-----	Green
Great South Channel Sliver Restricted Area	-----	Green
Other Northeast gillnet waters	-----	Green
New Hampshire* and Maine** Exemption Area (Alternative 2-6 Draft only)	-----	Red and Blue
Mid/South Atlantic Gillnet waters	-----	Blue
Southeast US Restricted Area South	-----	Yellow
Other Southeast Gillnet waters	-----	Yellow
<i>Shark Gillnet (with webbing of 5" or greater)</i>		
Southeast US Restricted Area South	-----	Green and Blue
Southeast Monitoring Area	-----	Green and Blue
Other Southeast Waters	-----	Green and Blue

* New trap/pot management area

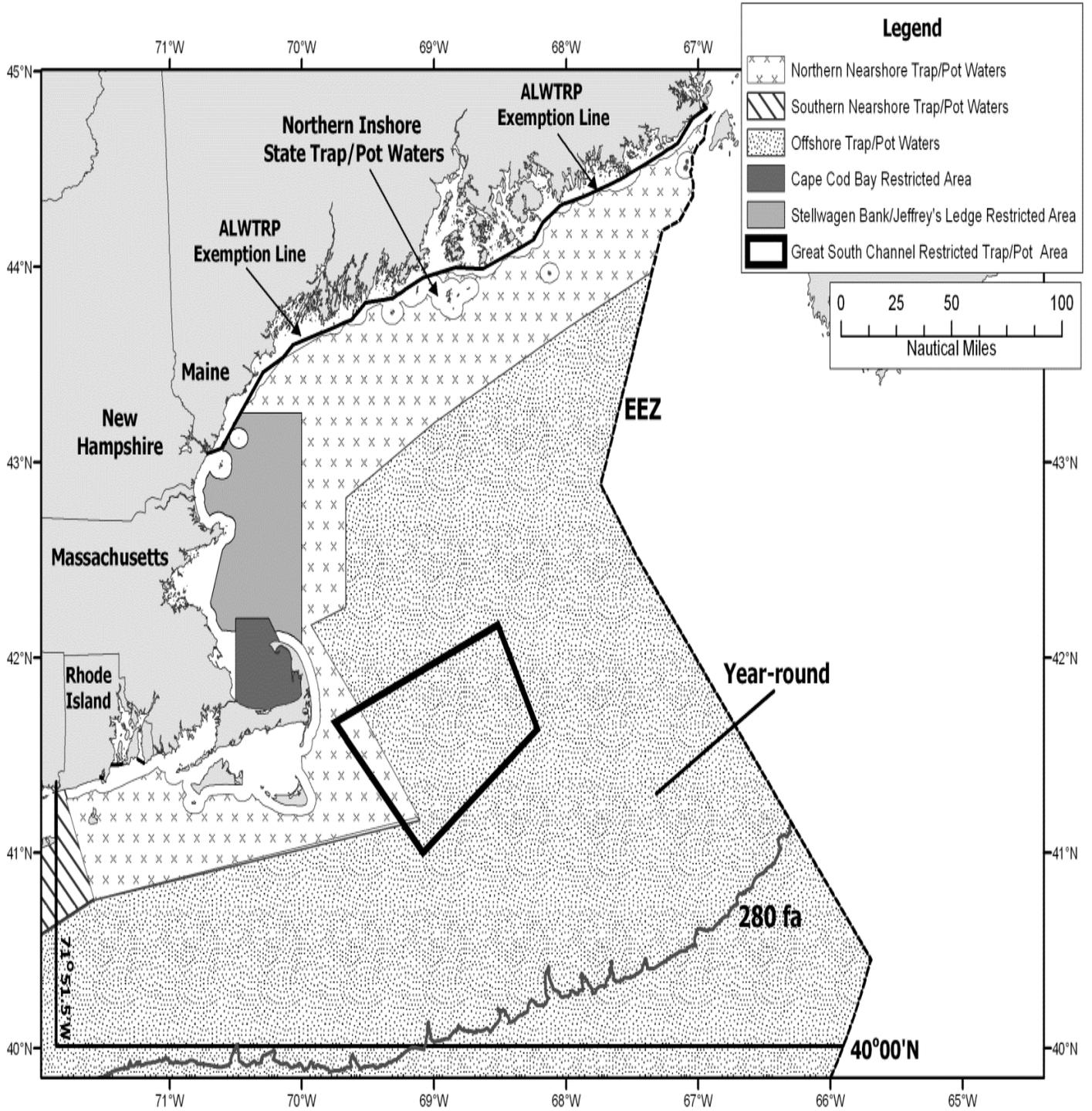
**Mark for the Maine exemption area does not currently exist.

** *LMA is identified if new traps per trawl scenarios have been proposed in these areas.

Exhibit 3-3

MANAGEMENT AREAS UNDER ALTERNATIVE 1 (No Action Alternative)

Northeast Region Trap/Pot Management Areas



Southeast Region Trap/Pot Management Areas

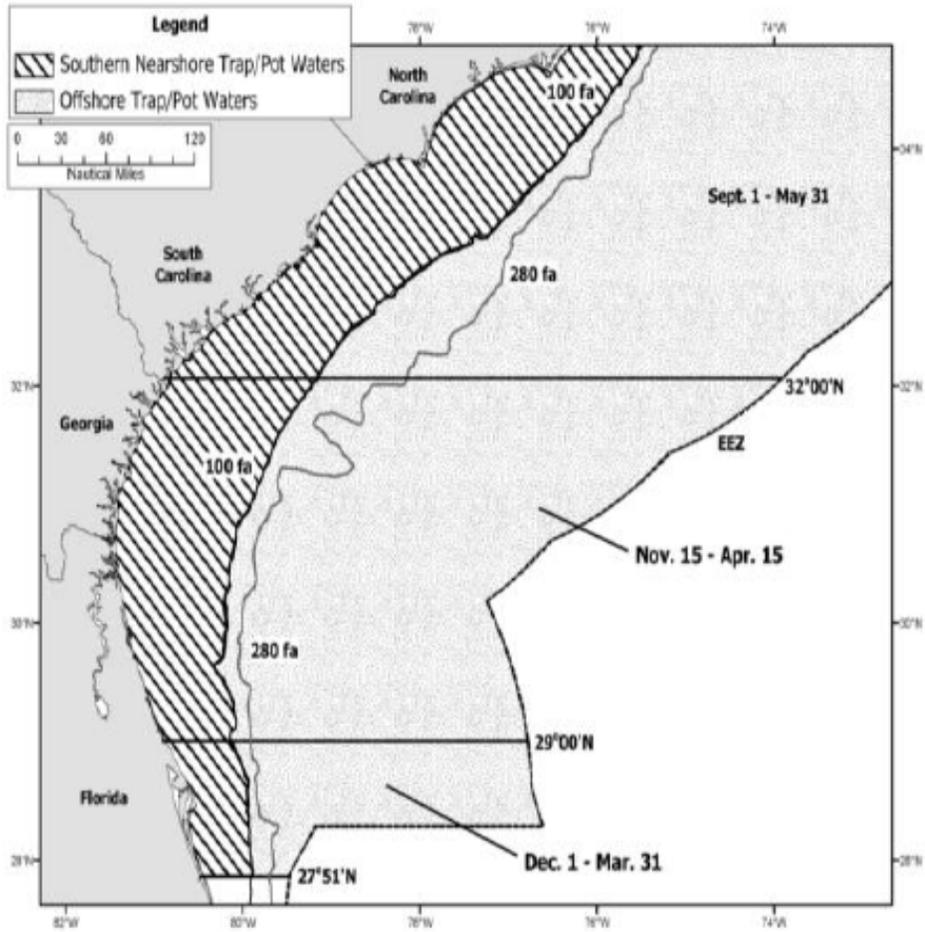


Exhibit 3-4
NORTHEAST REGION TRAPS PER TRAWL PROPOSAL UNDER ALTERNATIVES 2 AND 4

Northeast Area (miles)	Minimum Traps/Trawl	Number of Endlines
Maine A (non-exempt state waters)	2	1
Maine B (non-exempt state waters)	3	1
Maine C (non-exempt state waters)	3	1
Maine D (non-exempt state waters)	3	1
Maine E (non-exempt state waters)	2	1
Maine F (non-exempt state waters)	4	1
Maine G (non-exempt state waters)	2	1
Maine A (3-12)	5	1
Maine B (3-12)	5	1
Maine C (3-12)	5	1
Maine D (3-12)	5	1
Maine E (3-12)	5	1
Maine F (3-12)	10	2
Maine G (3-12)	10	2
Maine A (12+)	10	2
Maine B (12+)	10	2
Maine C (12+)	10	2
Maine D (12+)	10	2
Maine E (12+)	10	2
Maine F (12+)	20	2
Maine G (12+)	20	2
LMA 1 (0-3)	3	1
LMA 1 (3-12)	10	2
LMA 1 (12+)	20	2
LMA1/OC Overlap (0-3)	2	1
OC (0-3)	2	1
OC (3-12)	10	2
OC (12+)	20	2
LMA 2 (0-3)	3	1
LMA 2 (3-12)	10	2
LMA 2 (12+)	20	2
LMA 2/3 Overlap (12+)	20	2
LMA 3 (3-12)	10	2
LMA 3 (12+)	20	2

Exhibit 3-5

PROPOSED SOUTHEAST REGION TRAP/POT MANAGEMENT AREAS (Under Alternatives 2-6 (Draft and Preferred))

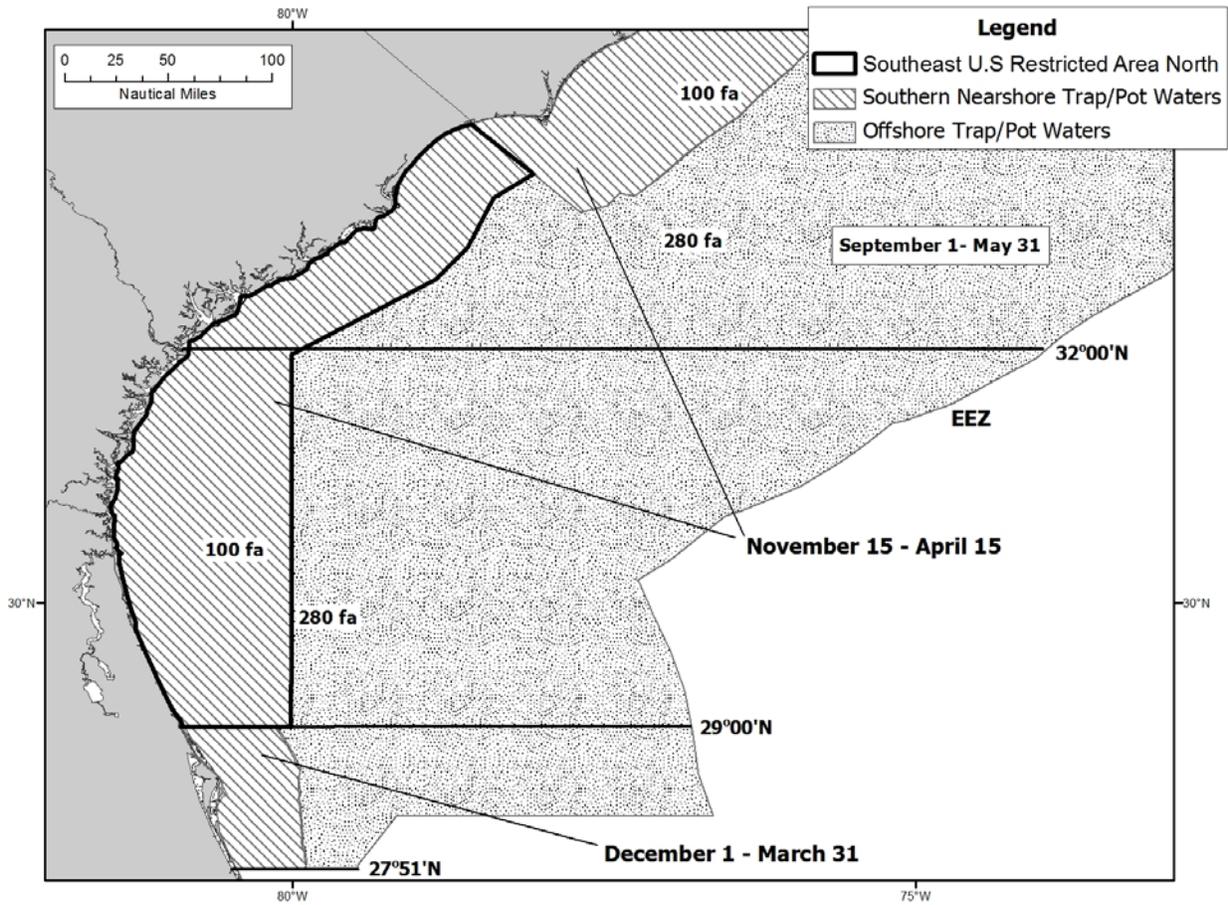


Exhibit 3-6
REGULATORY LANGUAGE CHANGES FOR ALTERNATIVES 2-6 (Draft and Preferred)

<ol style="list-style-type: none"> 1. For the definition of ground line referring to gillnet remove reference to 'or buoy line' 2. Clarify exempted waters language 3. Clarify the definition of the restricted period for the Southeast US Monitoring Area 4. Clarify other special measures language
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Exhibit 3-7

**MAINE DEPARTMENT OF MARINE RESOURCES TRAPS PER TRAWL PROPOSAL UNDER
ALTERNATIVES 3, 5, AND 6 (Draft and Preferred)**

Number of traps per trawl

Maine Zone	Non-Exempt State Waters	3-6 Miles	6-12 Miles**	12+ Miles
A	2	3	5	15
B	2	3	5	15
C	2	3	5	15
D	2	3	10	15
E	2	3	10	15
F	2	3	10	15*
G	2	3	10	15*

* Zone F and G in the 12+ miles range will go to a 20 trap per trawl minimum with 2 endlines from November through February

** Five trap per trawl minimum in Zones A-C in the 6-12 mile area will have one endline, 10 trap per trawl and 15 trap per trawl will have 2 endlines

Coordinates of the proposed six mile line in Maine waters¹

- 44°31.98' N. lat., 67°9.72' W. long (Machias Seal)
- 44°3.42' N. lat., 68°10.26' W. long (Mount Desert Island)
- 43°40.98' N. lat., 68°48.84' W. long (Matinicus)
- 43°39.24' N. lat., 69°18.54' W. long (Monhegan)
- 43°29.4' N. lat., 70°5.88' W. long (Casco Bay)
- 42°55.38' N. lat., 70°28.68' W. long (Isle of Shoals)

¹ Disclaimer: Due to a conversion error, these coordinates have changed slightly from what was proposed in the DEIS. As a result the analysis was redone in the FEIS so the number of vessels affected, reduction in vertical line, and reduction in co-occurrence may differ slightly from what was presented in the DEIS. The impact of this change is relatively small and does not affect the decisions previously made in the DEIS.

Exhibit 3-8
PROPOSED EXEMPT WATERS UNDER ALTERNATIVES 3, 5, AND 6 (Draft and Preferred)

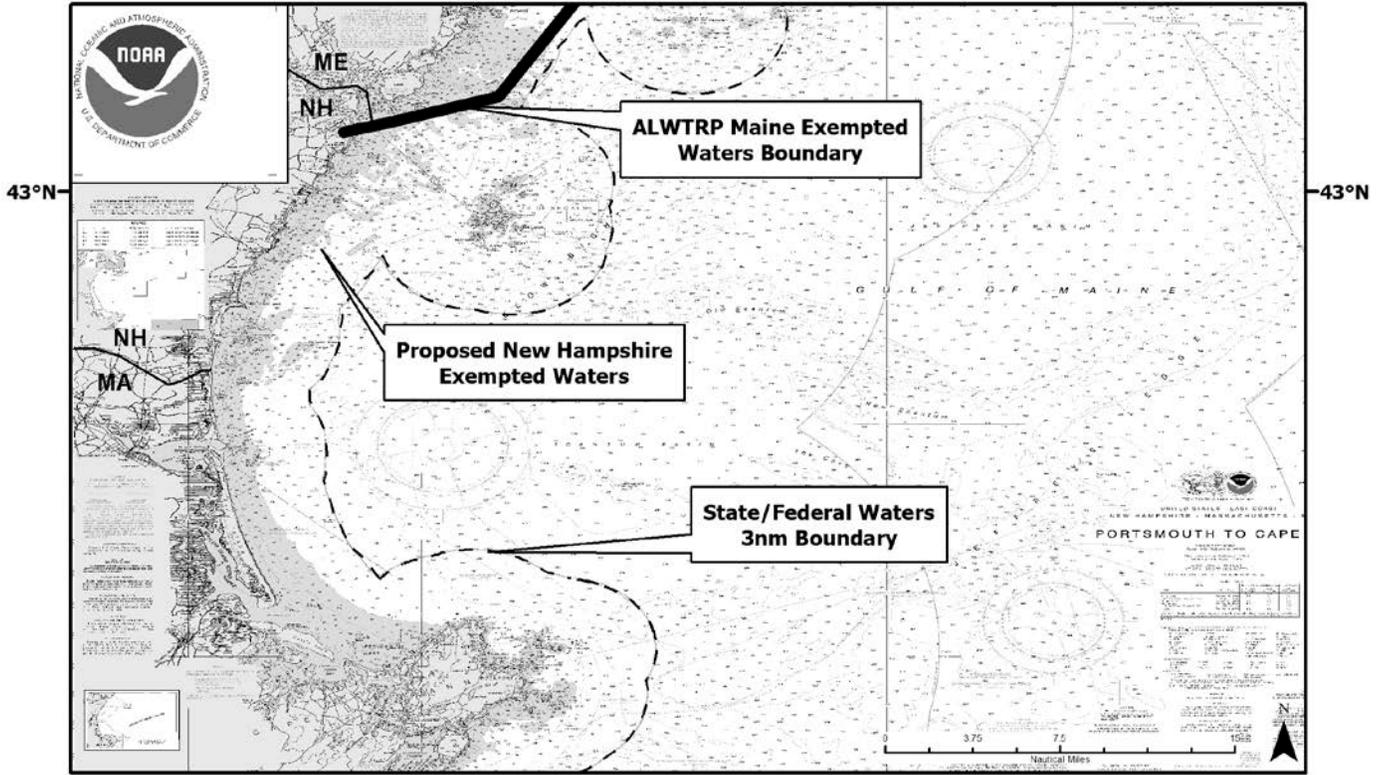
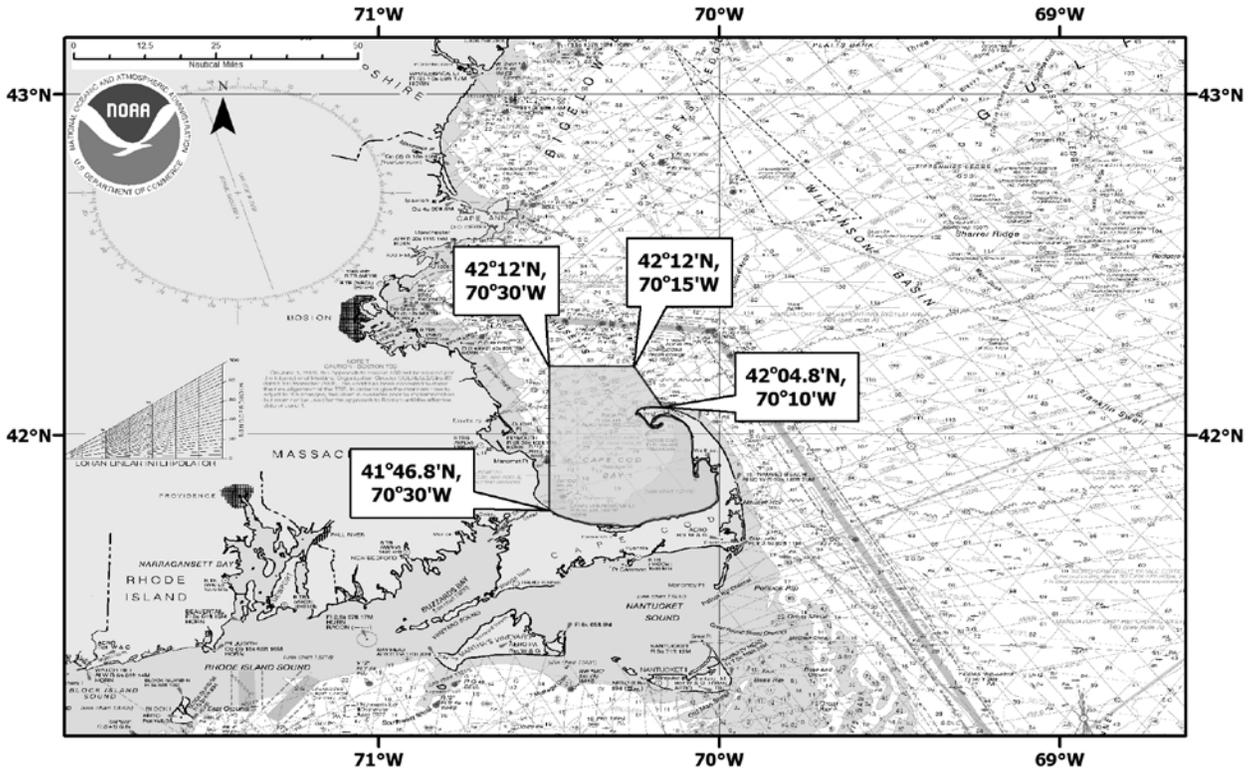
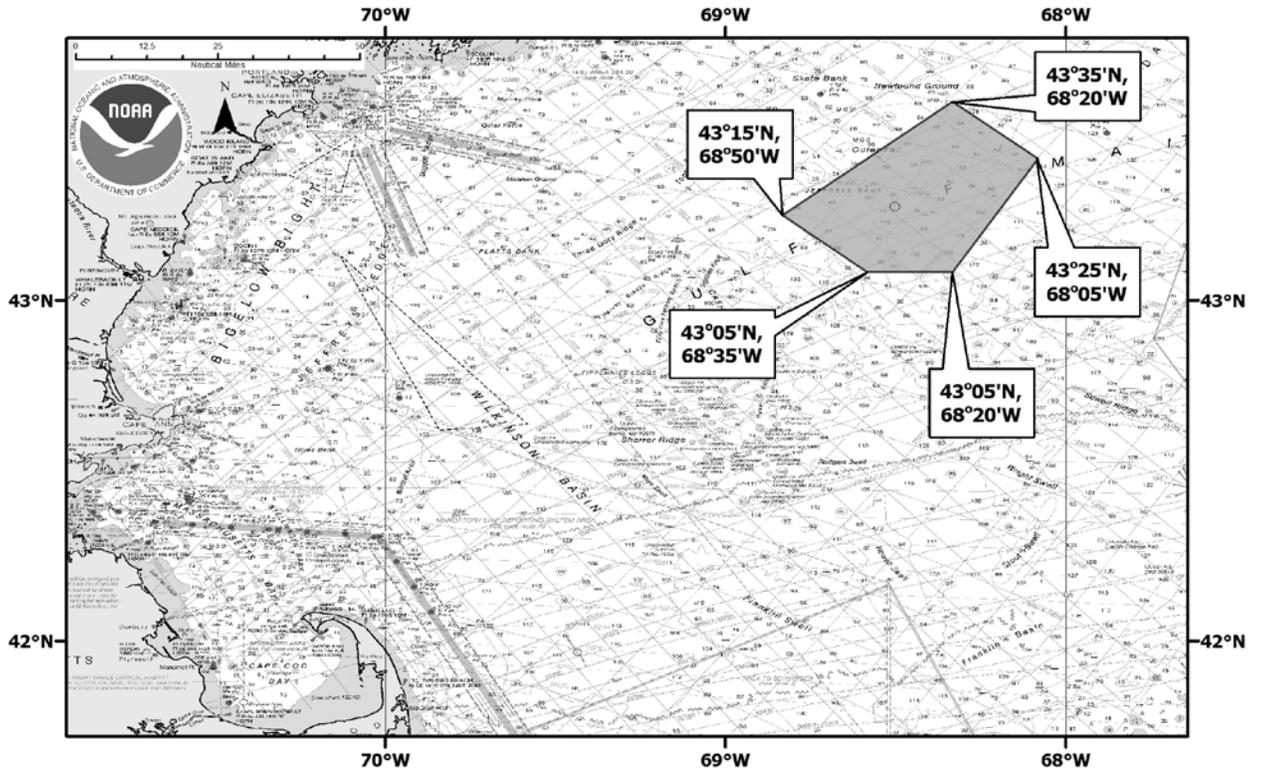


Exhibit 3-9
PROPOSED CLOSURES UNDER ALTERNATIVES 3, 4, 5, AND 6(Draft and Preferred)

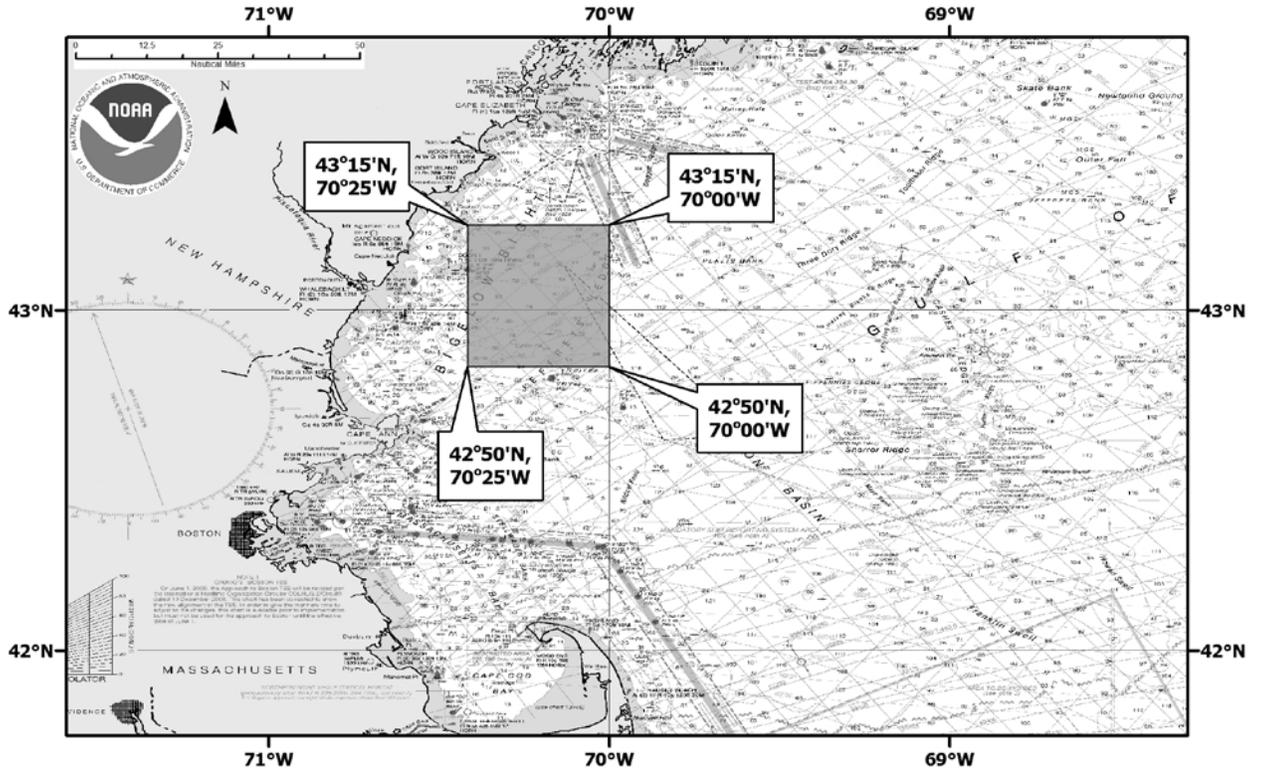
Cape Cod Bay Restricted Area (Alternative 3)
Closed to ALL trap/pot gear from February 1 through April 30



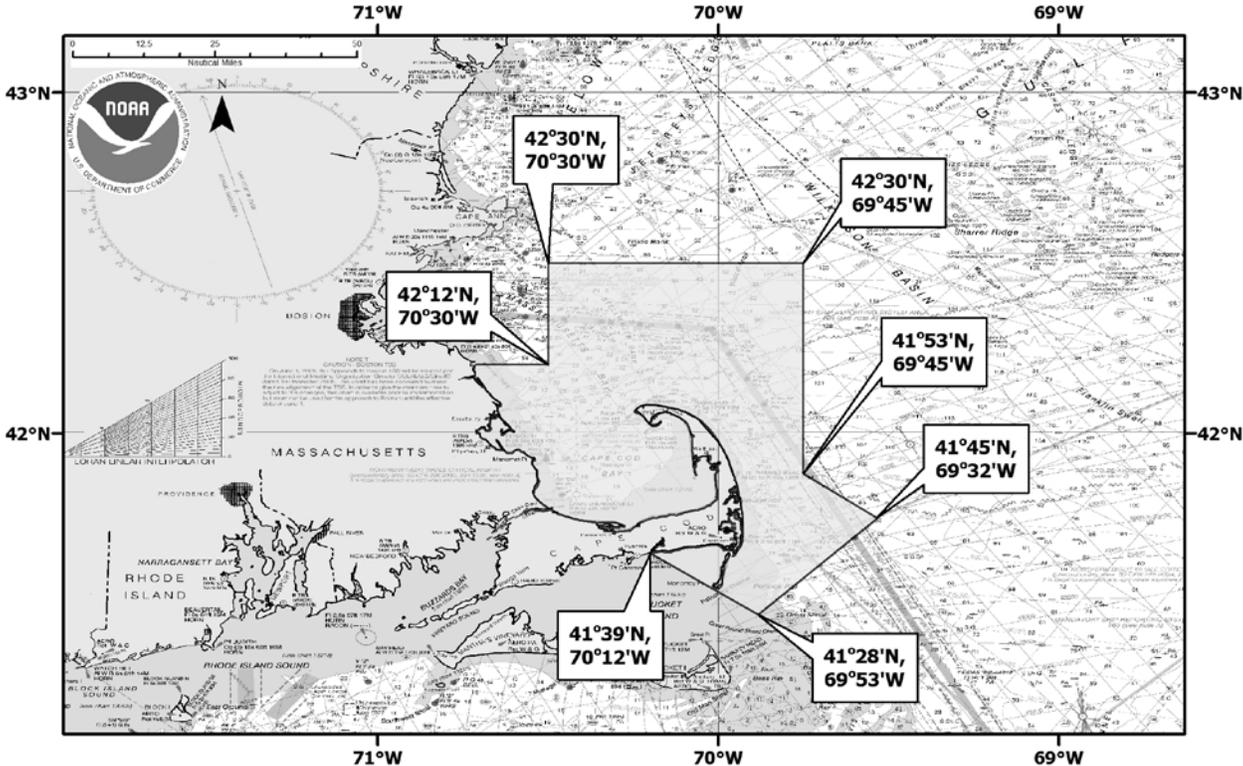
Jordan Basin (Alternative 4 and 5)
Closed to ALL trap/pot gear from November 1 through January 31



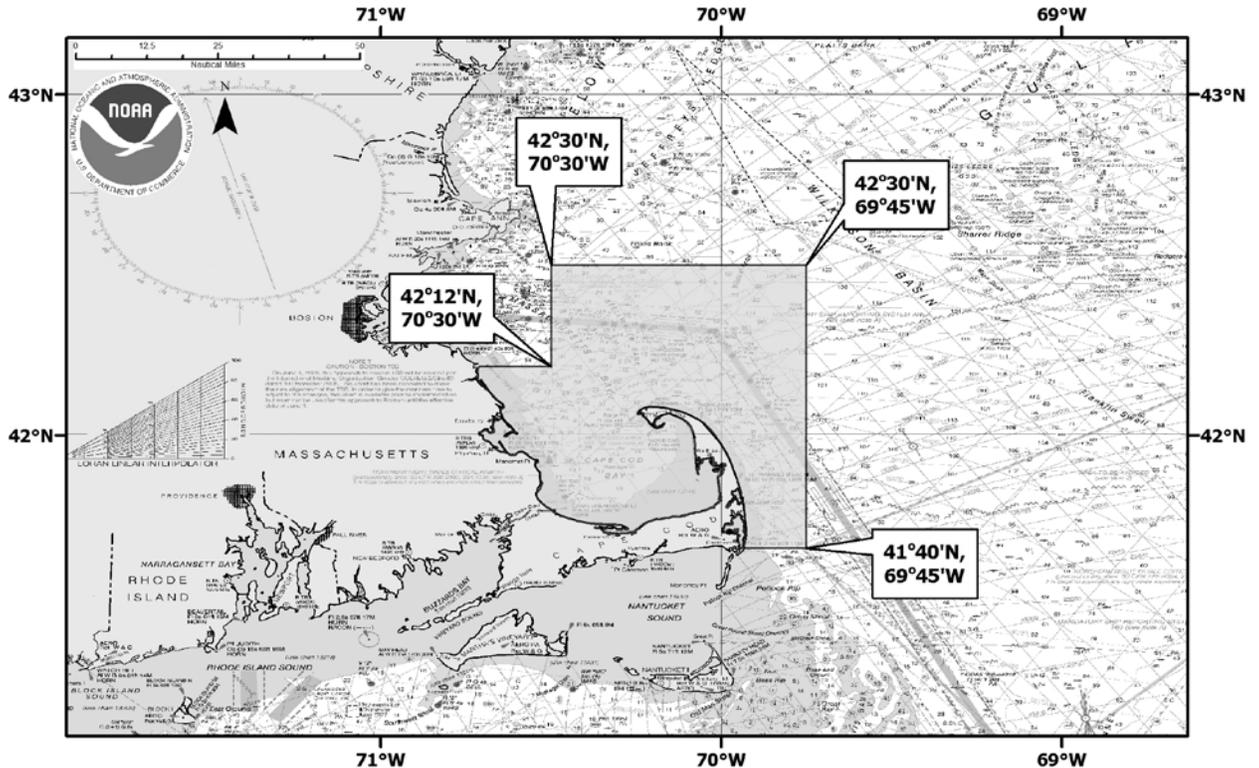
**Jeffreys Ledge (Alternative 4 and 5)
Closed to ALL trap/pot gear from October 1 through January 31**



**Massachusetts Restricted Area #1 (Alternative 4 and 5)
Closed to ALL trap/pot gear from January 1 through April 30**



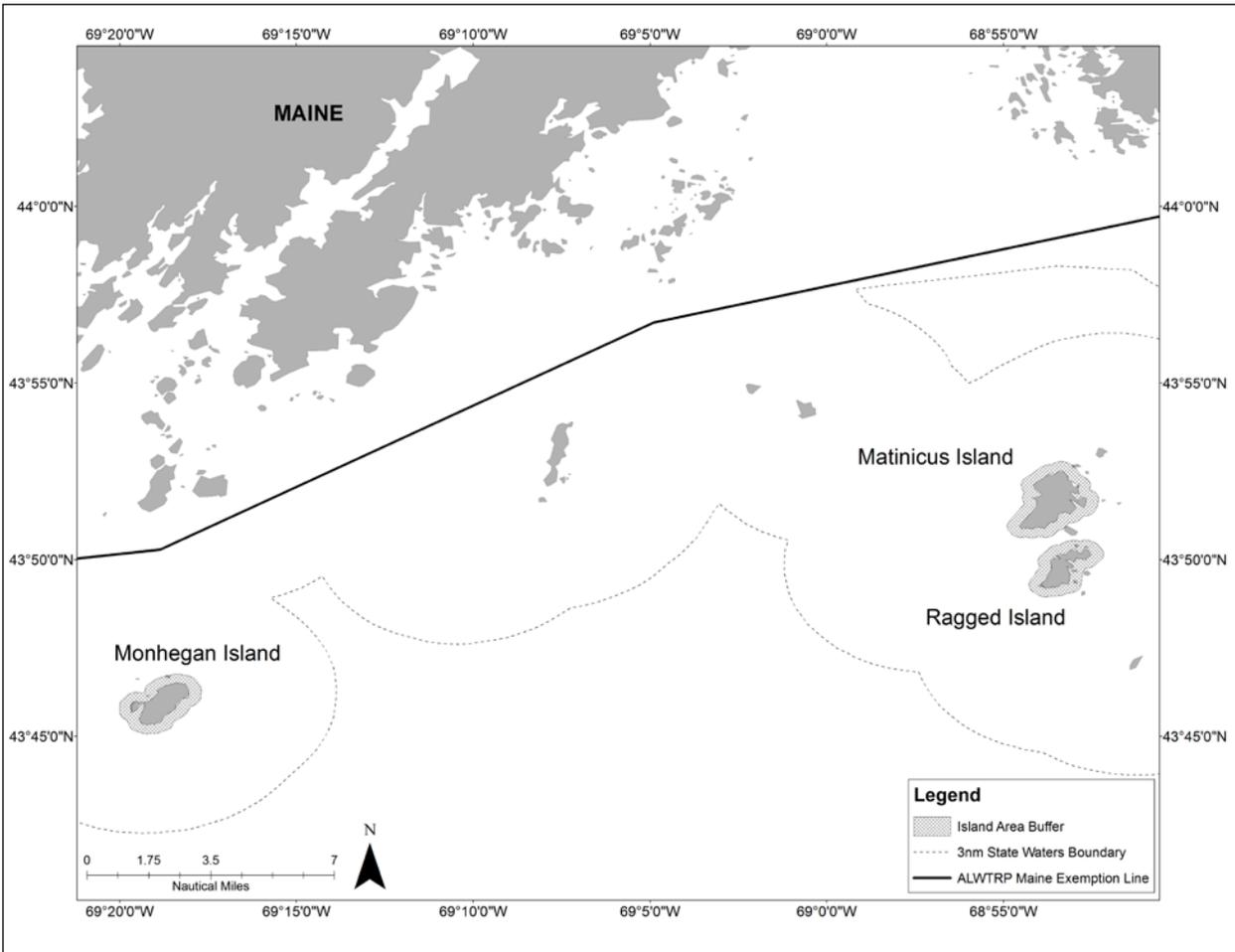
**Massachusetts Restricted Area #2 (Alternative 6 Draft and Preferred)
Closed to ALL trap/pot gear from January 1 through April 30**



**Exhibit 3-10
DESCRIPTION OF MAINE POCKETS WATERS PROPOSED UNDER ALTERNATIVE 6 (PREFERRED)**

- West of Monhegan Island in the area north of the line 43°42.17' N. lat., 69°34.27' W. long and 43°42.25' N. lat., 69°19.3' W. long
- East of Monhegan Island in the area located north of the line 43°44' N. lat., 69°15.08' W. long and 43°48.17' N. lat., 69°8.02' W. long
- South of Vinalhaven Island in the area located west of the line 43°52.31' N. lat., 68°40' W. long and 43°58.12' N. lat., 68°32.95' W. long
- South of Bois Bubert Island in the area located northwest of the line 44°19.27' N. lat., 67°49.5 W. long and 44°23.67' N. lat., 67°40.5' W. long

Exhibit 3-11
PROPOSED ¼ MILE BUFFER AROUND MAINE ISLANDS UNDER ALTERNATIVE 6 (PREFERRED)



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 as well as a series of public meetings held at key locations on the Atlantic coast.

While NMFS solicited and considered all input from stakeholders, a number of approaches were rejected in the formulation of alternatives. Exhibit 3-11 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:

- Requiring increased traps per trawl on a seasonal basis
- Suggesting reductions in traps equal reductions in number of end lines
- One endline on trawls with more than five traps
- Maintain status quo until see if current requirements are working
- Managing gillnets under this vertical line rule

**Exhibit 3-12
ALTERNATIVES CONSIDERED BUT REJECTED**

Topic	Alternative Considered but Rejected	Rational for Rejection
<i>Seasonal measures</i>	Adopt seasonal increase in traps per trawl as opposed to year round measures.	During our scoping meetings we heard that the public favored year round measures with the exception of the Southeast. Measures in the Southeast would be on a seasonal basis due to the seasonal shift in distribution of right whales.
<i>Gear marking</i>	Maintain status quo	The current marking scheme is ineffective and therefore needs to be modified. Status Quo is not an option.
	Mark by State and by fishery	This scheme would be too complex and create undue hardship on those vessels fishing in multiple states.
	Mark groundline and endline differently	Groundline is required to be sinking groundline and therefore the risk of entanglement from groundline has decreased. This rule focuses on decreasing the risk of vertical line and as such the proposed gear marking should be focused on vertical line only.
<i>Reduction in trap allocations</i>	Maintaining status quo and relying on proposed reductions in trap allocations to account for reductions in vertical lines.	A reduction in traps does not necessarily equate to a reduction in vertical line and therefore would not meet our goal of reducing the risk of vertical lines.
<i>Vertical line</i>	Require one endline for all trawls with greater than five traps.	During our scoping meetings we heard that fishing for longer trawls with one endline was extremely dangerous.
<i>Closures</i>	Implement closure for gillnet in Great South Channel Sliver Area	There is little fishing effort in this area so the benefit would not outweigh the potential economic burden on industry.
<i>Gillnets</i>	Including management measures for gillnets under this rule	See Appendix 3-A

Appendix 3-A

RATIONALE FOR REJECTING PROPOSED GILLNET MEASURES

Following implementation of the ground line rule, the NMFS and the ALWTRT turned focus to vertical line risk reduction, consistent with the decision of the ALWTRT in 2003. At the 2009 ALWTRT meeting, the Team agreed on a schedule to develop a management approach to reduce the risk of serious injury and mortality due to vertical line. The approach for the vertical line rule focuses on reducing the risk of vertical line entanglements in high impact areas versus a wide-broad scale management scheme. Using fishing gear survey data and whale sightings per unit effort (SPUE), a model was developed to determine the co-occurrence of fishing gear density and whale density. The ALWTRT Northeast Subgroup met in November 2010 and the Mid-Atlantic/Southeast Subgroup met in April 2011 to review the co-occurrence model and consider its implications for an overall management strategy to address vertical line entanglements. The Team agreed NMFS should use the model to consider and develop possible options to address fishery interactions with large whales by reducing the potential for entanglements, minimizing adverse effects if entanglements occur, and mitigating the effects of any unavoidable entanglements.

The gear characterization information in the model shows the majority of the vertical lines coastwide are from lobster trap/pot and other trap/pot fisheries (Exhibit 3A-1). For this reason, NMFS decided to focus this rule making on trap/pot gear only.

**Exhibit 3A-1
Trap/Pot vs Gillnet Gear**

<i>Annual Average Number of FTE Active Vessels¹ (2011 Baseline)</i>		
	Coastwide	Northeast
Lobster Trap/Pot	2,044	1,995
Other Trap/Pot	91	67
Gillnet	213	93

¹FTE Active Vessels stands for Full Term Equivalent vessel. Using Federal and state data sources, the model estimates the number of commercial fishing vessels that participate in each fishery. Depending on the location and fishery, the model employs a variety of methods to estimate the number of active vessels this differs from the number of permitted vessels.

<i>Annual Average Number of Vertical Lines (2011 Baseline)</i>		
	Coastwide	Northeast
Lobster Trap/Pot	224,457	220,330
Other Trap/Pot	7,905	5,630
Gillnet	1,501	615

Several stakeholders suggested that the proposed closures should affect both trap/pot and gillnet gear; however, looking at the amount of gillnet vertical lines removed as a result of the proposed closures the result is minimal compared to the trap/pot gear removed (Exhibit 3A-2). This result leads to a high economic impact on individual gillnet vessels but low overall conservation impacts or reduction in co-occurrence. Therefore, NMFS proposes the closures for only trap/pot gear and not gillnet gear. The current gillnet gear closures would remain in place.

Exhibit 3A-2
Effects of Proposed Closures on Trap/Pot vs Gillnet Gear

<i>Average Number of FTE Active Vessels Affected by Closure (During Closed Months)</i>				
	Lobster	Gillnet	Other Trap Pot	Total
<i>Alternative 3</i>				
Cape Cod Bay Restricted Area	16	0	0	16
<i>Alternatives 4 & 5</i>				
Massachusetts Restricted Area #1	110	12	0	122
Jeffreys Ledge	69	5	0	74
Jordan Basin	5	0	0	5
<i>Alternative 6Draft and Preferred</i>				
Massachusetts Restricted Area #2	109	12	0	121

<i>Average REDUCTION in Vertical Lines in Closures (assumes 100% Suspend Fishing)</i>				
	Lobster	Gillnet	Other Trap Pot	Total
<i>Alternative 3</i>	841	0	0	841
<i>Alternatives 4 & 5</i>	15,262	568	35	15,865
<i>Alternative 6Draft and Preferred</i>	6,329	0	0	6,329