UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
PROGRAM PLANNING AND INTEGRATION
Silver Spring, Maryland 20910

To All Interested Government Agencies and Public Groups:

Under the National Environmental Policy Act (NEPA), an environmental review has been performed on the following action.

TITLE: Final Environmental Assessment on Modifications to the Atlantic Large Whale Take Reduction Plan

LOCATION: Gulf of Maine waters

SUMMARY: The Atlantic Large Whale Take Reduction Plan is amended to modify the required minimum number of traps per trawl in state waters of Rhode Island and Massachusetts. A ¼ mile buffer is also proposed for waters surrounding the Isle of Shoals and Matinicus Island group in Maine waters. Those fishing in the buffer are exempt from the minimum number of traps per trawl requirement. In addition the Plan will include an updated gear marking scheme with unique marks for those fishing singles in the proposed exempted areas and a unique mark for both gillnets and trap/pots fished in Jeffreys Ledge and Jordan Basin.

RESPONSIBLE OFFICIAL: John K. Bullard
Regional Administrator
NOAA Fisheries Greater Atlantic Regional Fisheries Office
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The environmental review process led us to conclude that this action will not have a significant effect on the human environment. Therefore, an environmental impact statement will not be prepared. A copy of the finding of no significant impact (FONSI) including the supporting draft environmental assessment (EA) is enclosed for your information.

Although we are not soliciting comments on this completed EA/FONSI we will consider any comments submitted that would assist us in preparing future NEPA documents. Please submit any written comments to the responsible official named above.

Sincerely,

TRONVIG.KRISTEN.A.1365886012

Digitally signed by TRONVIG.KRISTEN.A.1365886012
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Date: 2015.03.12 12:10:30 -04'00'

For: Patricia A. Montanio
NOAA NEPA Coordinator

Enclosure

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MODIFICATIONS TO THE ATLANTIC LARGE WHALE TAKE REDUCTION PLAN

DRAFT
ENVIRONMENTAL ASSESSMENT

MARCH 2015

US DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL MARINE FISHERIES SERVICE
GREATER ATLANTIC REGIONAL FISHERIES OFFICE

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1 INTRODUCTION

In accordance with the National Environmental Policy Act (NEPA), this Environmental Assessment (EA) evaluates potential environmental impacts of a rule proposed by NOAA's National Marine Fisheries Service (NMFS) under Section 118 of the Marine Mammal Protection Act (MMPA) to modify the regulations implementing the Atlantic Large Whale Take Reduction Plan (Plan).

1.1 Background

The Plan was developed pursuant to section 118(f) of the MMPA, to reduce the level of serious injury and mortality of large whales as a result of trap/pot and gillnet commercial fishing gear. After the 1994 amendments to the MMPA, NMFS created the Atlantic Large Whale Take Reduction Team (Team) in 1996 and developed the first Plan which published its implementing regulations on July 22, 1997 (62 FR 39157). The Team consists of stakeholders representing state and federal government agencies, fishing industry, conservation organizations, and researchers. For a more detailed management history of the Plan and management of fishery interactions, please see the Final Environmental Impact Statement (FEIS) accompanying the 2014 amendment to the Plan (NMFS 2014).

At its 2009 meeting, the Team agreed on a schedule to develop a management approach to reduce the risk of serious injury and mortality due to vertical lines. We committed to publishing a final rule to address vertical line entanglement by 2014. Based on input from the Team, NMFS changed its management approach for addressing vertical line entanglements by switching from a broad-base management strategy to a more precise high impact area strategy. To assist the Team in the development of options, we developed a new Vertical Line Model. The model utilizes fishing gear characterization data and whale sightings per unit effort (SPUE) data to determine the co-occurrence of fishing gear density and whale density. The Team's Northeast Subgroup met in November 2010 and the Mid-Atlantic/Southeast Subgroup met in April 2011 to review the model and consider its implications for an overall management strategy to address vertical line entanglements. The Team agreed that we should use the model to determine what areas to consider for management and develop possible options to address fishery interactions with large whales. Management measures were developed and analyzed to see what level of co-occurrence reduction resulted from each of the suite of measures.

We published a Draft Environmental Impact Statement (DEIS) (July 2013) and proposed rule (78 FR 42654, July 16, 2013). The alternatives presented in the DEIS were intended to further reduce the risk of serious injury and mortality to large whales from entanglements in commercial fishing gear and minimize adverse impacts if entanglements occur. We held 16 public hearings and accepted comments on the DEIS and proposed rule during a 60-day public comment period ending September 16, 2013. We issued the Notice of Availability for the FEIS on May 16, 2014 (79 FR 28505) with a 30-day comment period through June 16, 2014 and the Record of Decision was signed on June 20, 2014.

We published an amendment to the Plan via a final rule on June 27, 2014 (79 FR 36586) to address large whale entanglement risks associated with vertical line (or buoy lines) from

commercial trap/pot fisheries. This amendment included gear modifications, gear setting requirements, a seasonal closure (Massachusetts Restricted Area) and gear marking for both the trap/pot and the gillnet fisheries.

In consultation with the Team, we developed protocols for considering modifications or exemptions to the regulations implementing the Plan. Following these protocols, on August 18, 2014, the Massachusetts Division of Marine Fisheries (DMF) submitted a proposal to modify the Massachusetts Bay Restricted Area and exempted several areas from the gear setting requirements to address safety and economic concerns raised by their industry members.

The DMF proposal adequately addressed the protocols and criteria established by the Team for considering modifications or exemptions to the Plan's regulations enabling us to consult with the Team. We decided to address the modifications to the Massachusetts Restricted Area and the exemption of the minimum number of traps per trawl requirements separately, beginning with the Massachusetts Restricted Area. After discussions with the Team, NMFS published an amendment to the Plan on December 12, 2014 (79 FR 73848) changing the timing and size of the closure. The Team did not agree to establish a gear stowage area during a portion of the closure.

Along with the DMF proposal we also received proposals from our other state partners after the publication of the June 2014 final rule requesting certain waters be exempt from the minimum number of traps per trawl requirements due to safety concerns.

NMFS convened the Team in January 2015 to discuss the remainder of the DMF proposal as well as the proposals received from Rhode Island Department of Environmental Management (RI DEM), Maine Department of Marine Resources (ME DMR), and the conservation community.

At its January 2015 meeting, the Team discussed the proposed modifications to the Plan. The discussion included a review of the rationale behind the states proposals, as well as a review of analysis completed by our contractor, Industrial Economics, Inc, to determine the co-occurrence score of the proposals as compared to the current minimum number of traps per trawl requirements. Team members broadly recognized the potential safety and operational impacts of current requirements for fishermen using smaller vessels. Several Team members spoke to the increased safety risk to fishermen with additional lines on the boat; others talked to the operational difficulties (e.g., rugged hard bottoms in Maine, strong currents off Outer Cape Cod, increased gear loss, additional crew needed to safely manage longer strings) and the potential for increased and more complex gear conflicts arising from longer trawls.

However, Team members had somewhat divergent views on the impacts of the various proposals on reducing entanglement risk (Table 1). Our preliminary analysis showed low to no impact on co-occurrence scores for most of the exemption proposals (though DMF Proposal #2 showed an annual increase of 7.4%). In total, DMF Proposal #1, DMF Proposal #2, and RI DEM's Proposal showed an annual increase of 8.0%. This number increased as a result of DMF Proposal #3. DMF Proposal #3 was added at the January Team meeting and as such, was not analyzed at the time of the meeting. Subsequent analysis of all DMF proposals and RI DEM proposals indicates an 8.2% annual increase of co-occurrence (for more details of the analysis see Chapter 4). To

some Team members, the analysis provided at the Team meeting suggested a reasonable tradeoff, including DMF Proposal #3, which was not analyzed at the meeting. The Team felt that there was little increase in overall entanglement risk with improved safety, economics and operational considerations for the smaller vessels. Others were concerned about the conservation implications of any increase in lines; therefore, the proposals triggered extensive discussions about the need for distinct and unique gear-markings to improve NMFS' ability to identify the likely source of entanglements if an increase in lines were to occur as a result of the proposals.

Team members generally agreed that limited data on whale populations and location, vertical line numbers and locations, and inability to identify origin of the gear continues to constrain the Team's ability to develop more effective recommendations. Any actions the Team and NMFS can take to strengthen data collection and analysis – along with improved monitoring of the overall Plan – will result in a more targeted and effective Plan. Consequently, the Conservation Community amended their proposal to replace their proposed closure areas with increased gear marking within the proposed exemption areas and within Jeffreys Ledge and Jordan Basin.

At the conclusion of the January meeting, the Team, by near consensus, recommended that we amend the Plan as proposed by DMF (Proposals 1 & 2), RI DEM, and ME DMR and by majority, the Team recommended DMF Proposal #3. The Team also recommended that the gear marking scheme be updated to include unique marks for those fishing singles in the proposed exempted areas and a unique mark for both gillnets and trap/pots fished in Jeffreys Ledge and Jordan Basin (Table 2).

1.2 Purpose and Need

This action is needed because NMFS state partners requested exemptions to portions of the Plan citing safety concerns. The requests followed the agreed upon procedure for requesting an exemption, thus, NMFS determined it was necessary to consider the requests. The purpose of this action is therefore to consider whether the requested exemptions to the requirement in the Vertical Line regulations to fish a minimum of two traps per trawl will reduce safety concerns while still meeting the goals of the Plan. In general, the affected vessels are likely to be smaller and are more likely to be operated singlehandedly than vessels in areas that would remain subject to Plan requirements. Fishermen who use small vessels may find it difficult to transport, set, and haul the trawls called for under current regulations. Trawl fishing also may create unsafe conditions when grappling for traps fouled on bottom structure or untangling crossed gear. This action proposes to address these safety concerns.

1.2.1 Scope of the Analysis

The scope of this analysis is limited to the preferred alternative of modifying the Plan to accept exemptions proposed by state partners and the status quo alternative of leaving the Plan as it was amended in June 2014 and December 12, 2014. This analysis only affects the Northeast portion of the Plan and builds off the analysis that was completed for the FEIS accompanying the 2014 amendment to the Plan (NMFS 2014). Due to the limited impacts of the alternatives, only impacts to the biological, economic and social valued ecosystem components (VECs) are addressed. No impacts are expected to habitat or the physical environment as the alternatives will

only have limited impact to the number of lines in the gear used to fish pot/trap gear. Pot/trap gear has little impact on habitat (Stevenson *et al*, 2004) in general and this action will not impact the number of pots or traps fished.

2 SUMMARY OF MANAGEMENT ALTERNATIVES

2.1 Alternative 1: No Action (Status Quo)

Alternative 1, "No Action," leaves the current Plan intact with no regulatory changes proposed. This includes the most recent changes to the Plan that occurred via final rule on June 27, 2014 (79 FR 36586) and December 12, 2014 (79 FR 73848). This amendment included gear modifications, gear setting requirements, a seasonal closure (Massachusetts Restricted Area) and gear marking for both the trap/pot and the gillnet fisheries (NMFS 2014).

Specifically, current regulations include:

- A two traps per trawl minimum for any pots/traps fished within state waters, with an exception for a ¼ mile buffer around the islands (Monhegan, Matinicus, and Ragged) in Maine state waters and New Hampshire state waters;
- Only one endline permitted for trawls with 5 traps or greater;

2.2 Alternative 2: Preferred

Alternative 2, the preferred alternative, includes all of the measures of Alternative 1 with the exemptions proposed by partners, included for consideration based on broad agreement among the Team.

Table 1: Preferred Alternative Management Measures (see Attachment A)

Stakeholder Group	Current Rule (Alternative 1)	Proposal (Alternative 2)
Maine Department of Marine Resources (ME DMR)	Minimum of two traps per trawl in state waters. Singles are allowed in a ¼ mile buffer around three inhabited islands.	Create similar ¼ mile buffer around Isle of Shoals and Metinicus Island Group to allow single traps in this area (Figures 1 &2)
DMF #1	Minimum of two traps per trawl in state waters	Allow single traps in southern state waters (Figure 3)
DMF #2	Minimum of two traps per trawl in state waters	Allow singles in northern state waters including the Outer Cape and Cape Cod Bay (Figure 3)
DMF #3	One endline on trawls using equal to and greater than five traps	Allow those fishing with four and five traps to use two endlines (Figure 3)
Rhode Island Dept of Environmental Management (RI DEM)	Minimum of two traps per trawl in state waters	Allow singles in state waters (Figure 4)
Conservation Community	Disapproved seasonal closures in Jordan Basin and Jeffreys Ledge	Use the same boundaries for the disapprove closures and establish unique gear marking (Table 2) in Jordan Basin and Jeffreys Ledge (Figures 5 & 6)

Table 2: Proposed Gear Marking Scheme		
Management Area	**Current Gear Marking**	**New Gear Marking**
Exempt RI state waters	Red	Red and Blue
Exempt MA state waters in LMA 1	Red	Red and White
Exempt MA state waters in LMA 2	Red	Red and Black
Exempt MA state waters Outer Cape	Red	Red and Yellow
Isle of Shoals, Maine	Red	Red and Orange
Jordan Basin (Trap/Pot)	Black (or Red)	Black (or Red) and Purple
Jeffrey Ledge (Trap/Pot)	Red	Red and Green
Jordan Basin (Gillnet)	Green	Green and Yellow
Jeffrey Ledge (Gillnet)	Green	Green and Black

The preferred alternative also includes the following non-regulatory recommendations from the Team:

- Require states to provide annual reporting on number of vertical lines in the newly exempted areas
- Require expedited serious injury determination by NMFS by evaluating entanglements from these areas on a case-by-case basis rather than an end of the year cumulative evaluation
- Reconvene the Team (in-person or by webinar) if there are entanglements involving line from any of the newly-exempted areas that result in a large whale mortality or serious injury.

3 DESCRIPTION OF THE AFFECTED ENVIRONMENT

This section describes the changes to the environment of the area affected by the preferred alternative and no action alternative since the FEIS accompanying the 2014 amendment to the Plan (NMFS 2014).

3.1 Biological Environment

North Atlantic right whales (*Eubalaena glacialis*), North Atlantic humpback whales (*Megaptera novaeangliae*), and fin whales (*Balaenoptera physalus*) are protected by the MMPA and the ESA. The Plan was created in response to provisions of the MMPA, and under its authority. Sections 2.1.1 and 2.1.2 of the 2014 FEIS describe the protections that the MMPA and ESA provide for Atlantic large whales, and the requirements of the MMPA that led to the creation of the Plan.

Information regarding marine mammal distribution, abundance, and sources of injury and mortality can be found in the most recent marine mammal Draft Stock Assessment Reports (Waring *et al.* 2014). These reports published on January 29, 2015 (80 FR 4881) and are currently out for review. The comment period closes on April 29, 2015. The information below is considered preliminary. Also, this is the first Stock Assessment using the updated serious injury designation and reporting process, which uses guidance from previous serious injury workshops, expert opinion, and analysis of historic injury cases to develop new criteria for distinguishing serious from non-serious injury (Angliss and DeMaster 1998; Andersen *et al*.

2008; NOAA 2012). NMFS defines serious injury as an "*injury that is more likely than not to result in mortality.*" All injury determinations for this stock assessment were performed under the new guidelines. The new process involves proration of serious injury determinations where there is uncertainty regarding the severity or cause.

Table 3: 2014 Draft Stock Assessment Report Information[1] (2008-2012)			
	Minimum Population Estimate	**PBR**	**Serious Injury/Mortality**
Right Whale	465	0.9	3.85
Humpback Whale	823	2.7	8.75
Fin Whale	1,234	2.5	1.55

Examination of the minimum number alive population index calculated from the individual sightings database for right whales, as it existed on 25 October 2013, for the years 1990-2011 suggests a positive and slowly accelerating trend in population size. These data reveal a significant increase in the number of catalogued right whales with a geometric mean growth rate for the period of 2.8% . The minimum population estimate of 465 is an increase from the 444 animals in the 2013 Stock Assessment Report. However, status reviews by the National Marine Fisheries Service continue to affirm endangered status (NMFS Northeast Regional Office 2012). The total level of human-caused mortality and serious injury is unknown, but reported human-caused mortality and serious injury was a minimum of 3.85 right whales per year from 2008 through 2012. Given that PBR has been set to 0.9, any mortality or serious injury for this stock can be considered significant (Waring et al 2014).

Waring et al 2014 states, as with right whales, human impacts (vessel collisions and entanglements) may be slowing recovery of the humpback whale population. Van der Hoop *et al.* (2013) reviewed 1762 mortalities and serious injuries recorded for 8 species of large whales in the Northwest Atlantic for the 40 years 1970-–2009. Of 473 records of humpback whales, cause of death could be attributed for 203. Of the 203, 116 (57%) mortalities were caused by entanglements in fishing gear, and 31 (15%) were attributable to vessel strikes. The average annual rate of population increase for this stock was estimated at 3.1% (SE=0.005, Stevick *et al.* 2003). An analysis of demographic parameters for the Gulf of Maine (Clapham *et al.* 2003) suggested a lower rate of increase than the 6.5% reported by Barlow and Clapham (1997), but results may have been confounded by distribution shifts. The total level of U.S. fishery-caused mortality and serious injury is unknown, but reported levels are more than 10% of the calculated PBR and, therefore, cannot be considered to be insignificant or approaching a zero mortality and serious injury rate. This is a strategic stock because the average annual human-related mortality and serious injury exceeds PBR, and because the North Atlantic humpback whale is an endangered species.

Waring et al 2014 states, the total level of human-caused mortality and serious injury is unknown for fin whales but the estimated minimum annual rate of serious injury and mortality from

[1] The PBR level is defined by the MMPA as the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population.

fishery interactions for this fin whale stock is 1.55. NMFS records represent coverage of only a portion of the area surveyed for the population estimate for the stock. The total U.S. fishery-related mortality and serious injury for this stock derived from the available records is likely biased low and is still not less than 10% of the calculated PBR. Therefore entanglement rates cannot be considered insignificant and approaching a zero mortality and serious injury rate the ZMRG. The status of this stock relative to OSP in the U.S. Atlantic EEZ is unknown, but the species is listed as endangered under the ESA. There are insufficient data to determine the population trend for fin whales.

3.2 Fishing Community

The regulations implementing the Plan in New England primarily affect gear managed under the Northeast Multispecies Fishery Management Plan (FMP) and American Lobster trap/pot fishery managed under the Atlantic States Marine Fisheries Commission (ASMFC). This section provides a brief update on actions that have occurred since the FEIS accompanying the 2014 amendment to the Plan (NMFS 2014). For a more detailed description of the affected fishing community, please see NMFS (2014).

Northeast Multispecies FMP

The New England Fishery Management Council (NEFMC) finalized the development of Framework 48 to the NE Multispecies FMP, which became effective on September 30, 2013. This action: 1) revised the status determination criteria for Gulf of Maine (GOM) cod, Georges Bank (GB) cod, Southern New England/Mid-Atlantic (SNE/MA) yellowtail flounder, and white hake based on new benchmark assessments completed for these stocks in 2012 and 2013; 2) updated the status determination criteria for white hake; 3) Eliminated dockside monitoring requirements for the groundfish fishery; 4) reduced the minimum fish sizes for several groundfish stocks to reduce regulatory discards and increase revenue from catch; 5) clarified goals and performance standard for groundfish monitoring programs; 6) revised the allocation of GB yellowtail flounder to the scallop fishery; 7) established the sub-annual catch limits (ACLs) of GB yellowtail flounder and SNE/MA windowpane flounder for the scallop and other non-groundfish fisheries; and 8) approved revisions to recreational and commercial accountability measures (AMs), including amendments to existing AMs for windowpane flounder, ocean pout, and Atlantic halibut, and new ‘‘reactive’’ AMs for Atlantic wolffish and SNE/MA winter flounder, to address a remand by the U.S. District Court of Appeals.

Framework 49 is a joint Northeast Multispecies and Atlantic Sea Scallop action (Framework 24) that became effective May 20, 2013. The final rule approved and implemented Framework Adjustment 24 to the Atlantic Sea Scallop Fishery Management Plan which: 1) set specifications for the Atlantic sea scallop fishery for the 2013 fishing year, including days-at-sea allocations, individual fishing quotas, and sea scallop access area trip allocations; 2) set default fishing year 2014 specifications; 3) adjusts the Georges Bank scallop access area seasonal closure schedules (and because that changes exemptions to areas closed to fishing specified in the Northeast Multispecies Fishery Management Plan, Framework 24 must be a joint action Framework 49); 4) continued the closures of the Delmarva and Elephant Trunk scallop access areas; 5) refined the management of yellowtail flounder accountability measures in the scallop fishery; 6) made

adjustments to the industry-funded observer program; 4) provided more flexibility in the management of the individual fishing quota program.

Framework 50 became effective on May 1, 2013. The action: 1) implemented three parallel emergency actions to set fishing year (FY) 2013 catch limits for Georges Bank (GB) yellowtail flounder and white hake, and to modify the maximum Gulf of Maine (GOM) cod carryover available to sectors from FY 2012 to FY 2013; 2) set specifications for FYs 2013–2015, including 2013 total allowable catches (TACs) for U.S./ Canada stocks; 3) revised the rebuilding program and management measures for Southern New England/ Mid-Atlantic (SNE/MA) winter flounder; and 4) implemented FY 2013 management measures for the recreational and common pool fisheries and clarified how to account for sector carryover for FY 2013 and for FY 2014 and beyond.

The NEFMC finalized the development of Framework 51 on February 24, 2014 , with the Framework becoming effective on May 1, 2014. Framework 51: 1) set catch limits for groundfish stocks; 2) revised the rebuilding programs for Gulf of Maine cod and American plaice; 3) modified management measures for yellowtail flounder; and 4) revised management measures for the U.S./ Canada Management Area.

Framework 52 became effective on January 14, 2015 and consists of two modifications to the current windowpane flounder accountability measures. First, the size of the accountability measure gear restricted areas can be reduced if it is determined that improvements in windowpane flounder stock health occurred despite the catch limits being exceeded. Second, the duration of the accountability measure can be shortened if it is determined that an overage of the catch limit did not occur in the year following the overage.

NMFS announced temporary GOM cod and haddock management measures in November 2014. For GOM cod, these measures required: 1) commercial and recreational fishery closure areas; 2) a 200-lb trip limit for GOM cod for all sector and common pool fishing trips taken in the open areas of the GOM Broad Stock Area; 3) zero recreational possession of GOM cod; 4) limited access groundfish vessels that declare to fish in the GOM Broad Stock Area to only fish in that broad stock area for the duration of the declared trip, irrespective of whether an at-sea monitor or observer is onboard; and 5) the revocation of the fishing year 2014 sector exemption that allowed a higher number of gillnets that Day gillnet vessels fishing in the GOM can use. For GOM haddock, following a recent GOM haddock assessment, and at the request of the New England Fishery Management Council, the temporary management measures increased GOM haddock catch limits for the duration of fishing year 2014. The temporary management measures for GOM cod and haddock are effective November 13, 2014, through May 12, 2015. If Framework 53 (see below) is approved and implemented, the management measures in that action would replace these interim measures. Framework 53 is scheduled to be implemented on May 1, 2015.

American Lobster Fishery

Two addendums have been approved since the FEIS published in May 2014.

- Addendum XXIII, approved in August 2014, focuses on habitat components that play a vital role in the reproduction, growth, and the sustainability of commercial and recreational fisheries by providing shelter, feeding, spawning and nursery grounds for lobsters to survive. While the Addendum does not implement any changes to the lobster management program, it is intended to advance our understanding of the habitat needs and requirements of American lobster and provides the most current information to inform management decisions.
- Addendum XXIV, currently under development, attempts to align the requirements of the trap transferability program approved for Areas 2, 3, and OCC with recently approved Federal regulations.

NMFS adopted a recommendation from the ASMFC to have a 2-month winter trap haul-out for all traps within the Outer Cape Lobster Management Area. This action, adopted on April 7, 2014 (79 FR 19015) requires removal of all traps from the Outer Cape waters from January 15 to March 15. For the purposes of this action, we consider this closure area to be part of the status quo. This regulation was enacted for tag enforcement purposes. It has minimal conservation benefits, such as the ability to more easily identify and remove ghost gear from the area. On December 12, 2014 (70 FR 73848) in order to simplify regulations, NMFS shifted the trap haul out period from January 15 –March 15 to February 1 to March 31 to more closely align with the Massachusetts Restricted Area closure under the Plan.

The trap/pot fisheries in inshore state waters consist of mainly those who fish singles. This proposed amendment to the Plan would allow an estimated 309 full term equivalent vessels[2] to continue to fish singles in these waters. Those that fish singles choose to do so for a variety of reasons including:

- Some bottom habitat lends itself to fishing with singles (rugged hard bottoms and strong currents)
- Small vessels that can only handle one trap and at time (senior and student industry members)
- Potential for increased and more complex gear conflicts with trawls
- Potential for increased gear loss with trawls
- No need for additional crew to manage trawls

Alternative 1 consists of a ban on singles in most inshore state waters. Alternative 2 would allow industry members to fish how they currently fish and takes into account the reasons listed above for the necessity to fish singles.

[2] 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. The term 'vessels' refers to these 'full term equivalent vessels'.

4 IMPACTS OF THE MANAGEMENT ALTERNATIVES

4.1 Evaluating the Biological Impacts of the Alternatives Through use of the Model

4.1.1 Overview of the Co-Occurrence Model

NMFS' evaluation of the impact of potential regulatory changes on whale entanglement risks is largely qualitative. This approach is necessary because models that would enable NMFS to conduct a rigorous quantitative assessment of such risks are currently unavailable; however, efforts to gain a better understanding of the factors that contribute to entanglement risks are underway. In particular, NMFS has invested for a number of years in the development of a model. The model utilizes fishing gear characterization data and whale sightings per unit effort (SPUE) data to determine the co-occurrence of fishing gear density and whale density. For detailed information on the model including its limitations and uncertainties refer to Chapter 5 of the 2014 FEIS. Since NMFS published the June 2014 final rule the model has been updated to include more recent SPUE data through 2012/2013. Due to time constraints fishing effort data has not been updated so that data includes information up to 2011.

In addition, the baseline scenario was updated to account for the newly enacted Plan requirements including:

- Minimum traps per trawl requirements that become effective on June 1, 2015, as specified in the June 27, 2014 final rule.
- Closure of Massachusetts Restricted Area from February 1-April 30, as specified in the December 12, 2014 final rule.
- Closure of the Outer Cape LMA from February 1 through March 31, as specified in the FMP and December 12, 2014 final rule.

The analysis of the baseline co-occurrence assumes compliance with these new regulatory requirements so the baseline gear configurations were revised to conform to the minimum trap per trawl requirements and assumes suspension of all activity during the times the closures are in place.

4.1.2 Biological Impacts of Alternative 1

Under Alternative 1 (No Action), the current Plan management regime consisting of time/area closures, minimum trap per trawl requirements, use of weak leaks and sinking groundline remains in place. As mentioned above, the No Action alternative includes an updated baseline for comparison to Alternative 2.

The Preferred Alternative from the 2014 FEIS that resulted in the management measures in the June 2014 final rule is considered to be Alternative 1 (No Action) for this proposed action. The previous rule resulted in significant positive effects for whales by reducing the number of vertical lines in the water and built upon actions that had previously been taken to reduce this risk (ie. implementation of sinking groundline). The rule consisted of requirements designed to reduce whale entanglement risk. For a full description of the impacts of Alternative 1 please refer to the 2014 FEIS.

4.1.3 Biological Impacts of Alternative 2

Alternative 2 would allow certain waters to be exempt from the minimum number of traps per trawl requirement. In addition, those fishing in all Massachusetts state waters would be required to have one endline for trawls less than and equal to three traps, those fishing with more than three traps can have two endlines. The current requirement of one endline for trawls less than or equal to five traps remains in place in all other management areas. In these areas, larger trawls (i.e., > 5 traps/pots) can be fished using two endlines. Alternative 2 creates the potential for more lines to be in the water column.

In portions of Massachusetts state waters (particularly in Southern Massachusetts waters) the change in co-occurrence of fishing effort and whale distribution is minimal (2.1% annual increase). In Northern Massachusetts waters the request for the exemption is dictated by safety and financial concerns of industry. The change in co-occurrence in this area is 7.4% annual increase. According to DMF along the Outer Cape there are dynamic tides and featureless substrate that dictate the use of single traps in this area. Massachusetts also has a student lobster permit that allows for permit holders to fish alone and with small boats. Single traps are used in this fishery and other inshore waters as a matter of safety. The DMF proposal would affect an estimated 228 vessels.

Rhode Island Department of Environmental Management cites the need for singles for safety reasons similar to the safety reasons as those discussed for MA state waters. This proposal would affect 80 vessels. In addition, the exemption is proposed due to the minimal co-occurrence of fishing effort and whale distribution in these waters (0.4% annual increase).

An exemption from the minimum number of traps per trawl requirement is also proposed for a ¼ mile buffer in waters surrounding the following islands in Maine – Matinicus Island Group (Metinic, Small Green, Large Green, Seal, and Wooden Ball)and Isle of Shoals Island Group (Duck, Appledore, Cedar, and Smuttynose). Boats within this ¼ mile buffer would be allowed to continue fishing single traps rather than multiple trap trawls due to safety issues since these waters are generally less than 30 fathoms deep with rocky edges, and boats fishing close to shore areas usually small. The inhabited islands of Monhegan, Matinicus, and Ragged Islands currently have a ¼ mile buffer created in the June 2014 rule. The proposed islands have the same bottom habitat as the previously exempt islands and many residents from many island communities fish around these islands. Additionally, the New Hampshire side of the Island of Shoals group is currently exempt from the minimum number of traps per trawl requirement, allowing the islands in the chain that fall on the Maine side of the border have the same exemption would provide parity to fishermen using islands on both sides of the border. The scale at which the co-occurrence model characterizes the distribution of fishing gear is too coarse to provide a meaningful assessment of vertical line use and change in co-occurrence with a quarter mile of shore. This is consistent with how the buffer islands were previously analyzed in the 2014 FEIS. However, ME DMR estimates that the fishing effort within the proposed buffer areas is small (0.3% of total vertical lines in the Northeast), and consists of approximately 20 fishermen and has peak use in the summer months. In addition, ME DMR is pursuing funding for aerial surveys

that would determine the use of marine mammals in these coastal areas as well as document the gear density.

4.1.4 Comparison of Biological Impacts

The primary difference in biological impacts between the No Action and Preferred alternatives is the addition of vertical lines back into the water column. On an annual basis the addition of these vertical lines is negative but minimal and results in less than a 5% increase in vertical lines and 9% increase in co-occurrence when compared to the status quo.

Table 4
Vertical Lines and Co-Occurrence Compared to No Action

PROPOSAL	ANNUAL	WINTER	SPRING	SUMMER	FALL
No Action	158,862	69,783	129,151	245,198	191,315
Alternative 2	168,312	70,505	139,154	263,586	200,003
Change in Number of VL	9,450	723	10,003	18,388	8,688
% Change of VL	5.9%	1.0%	7.7%	7.5%	4.5%
% Change in CO	8.2%	0.1%	17.7%	9.1%	3.6%

Overall, we consider the proposed action to have a slightly negative impact on large whales but not one that substantially prevents the Plan from achieving its goals as defined in the MMPA.

In an effort to monitor impacts from these exemptions, and determine future management if necessary, the Team recommended a unique gear marking scheme to help NMFS identify the relative contribution of single trap vertical lines to the overall serious injury and mortality of large whales. In addition, this action would require gear marking in two important high use areas for humpback and right whales—Jeffreys Ledge and Jordan Basin. Historic and recent sightings data from NMFS Aerial Surveys indicate a high number of whales utilize Jeffreys Ledge and eastward to Cashes Ledge. Jordan Basin is recognized as a mating area for right whales (Cole et al 2013). Gear marking is designed to improve NMFS ability to identify gear involved in entanglements and pinpoint where direct action is necessary. If an entanglement occurs in one of the uniquely marked areas, NMFS would perform an expedited serious injury on a case-by-case basis rather than an end of the year cumulative evaluation. NMFS would reconvene the Team (in-person or by webinar) if there are entanglements involving line from any of the newly-exempted areas that result in a large whale mortality or serious injury.

In addition to the unique gear marking the action would require annual reporting on number of vertical lines in the newly exempted areas to get a better understanding of the actual increase in co-occurrence and number of vertical lines vs what is predicted.

The additional gear marking is expected to have no direct impacts on biological resources but may have a slight positive indirect impact on large whales, if information from this data results in a future action.

4.2 Economic Impacts of the Alternatives

Alternative 1 would leave the provisions of the Plan unchanged, and thus would have no economic impact relative to current regulatory requirements. In the FEIS, it was determined the Plan amendment would have a slightly negative to negative economicimpact. In contrast, Alternative 2 would modify the Plan by allowing the use of single traps in Rhode Island state waters and in most Massachusetts state waters.[3] This change would constitute an exemption to the minimum two-trap-per-trawl requirement specified for these areas under the 2014 vertical line rulemaking. Those who until now have fished singles in these areas would avoid the costs associated with converting their gear from singles to doubles, and would also avoid other possible costs, such as a loss in revenue due to a reduction in catch. The analysis that follows estimates the likely magnitude of these impacts. Unless otherwise noted, the methods and data sources used in the analysis are consistent with those applied in Chapter 6 of the FEIS for the 2014 Plan amendments.

Analytic Approach

The costs that fishermen are likely to incur in complying with the 2014 trawling requirements include the following:

- **Gear Conversion**: Vessels fishing shorter configurations (e.g., singles) will need to reconfigure their gear to comply with trawling requirements. These changes may require expenditures on new equipment as well as investments of fishermen's time (i.e., time spent reconfiguring gear).

- **Catch Impacts**: Catch rates may decline for vessels that convert from shorter sets to longer trawls, reducing the revenues of affected operations.

- **Other Impacts**: Some vessels that shift to longer trawls may experience changes in the rate at which gear is lost. In addition, some fishermen may need to modify their vessels or add crew to handle longer trawls.

The analysis of avoided costs for vessels that would be affected by the proposed exemptions to trawling requirements is based upon the model vessels defined in the Vertical Line Model. Each model vessel represents a group of vessels that fish in the same area, share other operating characteristics, and would face similar regulatory requirements. The discussion below describes the use of model vessel concepts to assess costs related to gear conversion and potential changes in catch.

Gear Conversion Costs

Vessels that operate in areas that Alternative 2 would exempt from trawling requirements would avoid equipment costs associated with converting gear from singles to trawls. A vessel's equipment costs are a function of several factors, including the total number of traps fished; the

[3] Alternative 2 also would permit the use of single traps within a quarter mile of several islands in Maine. The scale at which the Vertical Line Model characterizes the distribution of fishing gear (i.e., 10-minute grid cells) is too coarse to provide a meaningful assessment of the number of vessels this provision would affect. As discussed below, however, research by the Maine Department of Marine Resources indicates that relatively few vessels set gear within these areas; hence, the analysis does not attempt to quantify the economic impacts of this provision.

depth at which gear is set; the diameter of vertical line and groundline; the composition of line; and the distance between traps. The FEIS details how these key parameters tend to vary by fishing area, and presents estimates of the cost of each gear element. It also presents estimates of the useful life of each gear element. The FEIS annualizes equipment costs based on these estimates, using a real annual discount rate of seven percent. The analysis of the economic impacts of Alternative 2 employs the same data and a similar approach. The only change in methodology is the adjustment of equipment costs from 2011 to 2013 dollars; this adjustment is made using the GDP implicit price deflator.

In addition to equipment costs, converting trap/pot gear to longer trawls would require an investment of fishermen's time. By allowing affected fishermen to avoid the need to convert singles to trawls, Alternative 2 would eliminate this cost. This analysis values the time saved using the same methods that the FEIS applied to estimate labor costs. Following the recommendation of NMFS gear specialists, the analysis assumes a savings of 15 minutes of labor for each trap that would no longer need to be converted to a new configuration. The total number of traps affected is based on estimates provided by the Vertical Line Model. The analysis assigns an implicit value to fishermen's time based on labor rates in professions they would pursue if not involved in fishing (i.e., their "opportunity cost"). The alternative professions upon which this value is based were identified in a survey conducted by the Gulf of Maine Research Institute; wages for these professions are based on data from the Bureau of Labor Statistics. The weighted average wage rate used to value fishermen's time is $23.22 (2013 dollars). The savings in labor costs is annualized over a period of five years, the approximate length of the Plan's regulatory review cycle.

It is noteworthy that in some instances, the analysis indicates that the use of singles actually increases a vessel's equipment costs, since it necessitates the use of more vertical line, buoys, and other gear elements. Presumably, fishermen who choose to fish singles despite higher equipment costs do so for other reasons, such as improving their catch rate. As discussed below, the analysis takes potential catch impacts into account in estimating the savings that Alternative 2 would provide.

Catch Impacts

The analysis of compliance costs associated with the recent Plan trawling requirements recognized the potential for impacts on landings under certain conditions. As noted in the 2014 FEIS, singles may allow fishermen to target especially productive bottom structure where longer trawls may be inefficient or difficult to haul (e.g., because of fouling on bottom structure). In addition, singles can be distributed more widely than trawled traps. Wide distribution may aid in the search for the target species and may reduce competition between traps, increasing the catch per unit of effort.

As discussed in the FEIS, data to support a quantitative analysis of the effect of gear configuration on catch are extremely limited. Adopting the approach used in the FEIS, this analysis assumes that vessels switching from singles to doubles would experience a five to ten percent reduction in catch, yielding a lower- and upper-bound estimate of catch and revenue impacts. Under Alternative 2, vessels operating in waters exempt from trawling requirements would be permitted to continue to fish singles, thus avoiding this adverse impact.

Table 5 summarizes the source and value of key parameters applied to analyze the revenue losses avoided by vessels that would be allowed to continue to fish singles under Alternative 2. The analysis uses the same annual catch per trap estimates applied in the FEIS, each of which is tailored to a specific area. To estimate gross revenue per trap and the revenue loss avoided, the analysis draws on ex-vessel price information obtained from the NMFS Commercial Landings database. The values employed reflect the average of prices from 2011 to 2013 (the most recent year for which data are available).

Estimated Economic Impacts

The methods discussed above can be applied to estimate the annual economic savings that Alternative 2 would provide. As shown in Exhibit 2, the Vertical Line Model indicates that more than 300 full-time equivalent trap/pot vessels fish in waters that Alternative 2 would exempt from Plan trawling requirements.[4] Just over 180 of these vessels target lobster, while the remainder target OTP species.[5] Under Alternative 2, in aggregate, affected vessels would realize estimated savings of $420,000 to $858,000 per year, with savings for OTP vessels being somewhat larger than those anticipated for lobster vessels (see Table 5). These include savings from avoided gear conversion costs, as well as savings from avoided catch and revenue impacts. Approximately, eight percent (= 325/4,000 vessels) would be impacted by this action. Savings per vessel range from a lower bound of about $200 for Rhode Island OTP vessels to an upper bound of $11,000 for OTP vessels in southern Massachusetts waters (SRAs 10 through 13). These savings represent between four and 12 percent of gross annual revenue per vessel, depending upon the geographic area and fishery. The analysis indicates that the OTP fishery in southern Massachusetts waters would realize the greatest savings. Savings in this fishery are driven by the estimated impact on conch landings, which are a major component of revenue for the OTP fishery in this region.

[4] Some vessels report activity in multiple areas in a given month. To avoid double-counting in such cases, the Vertical Line Model assigns the vessel's activity to each area in proportion to the distribution of trips it reports. For example, if over the course of a month a vessel reports seven trips to Area A and three trips to Area B, the analysis will assign 0.7 active vessels to Area A and 0.3 active vessels to Area B. Thus, all estimates of the number of vessels active in a given area are reported on a full-time equivalent basis; the number of vessels that fish a portion of their gear in the area each month may be higher. The documentation for the Vertical Line Model provides additional information on this issue.

[5] Data used in the Vertical Line Model indicate small levels of OTP effort scattered in Massachusetts SRAs 1 through 9, totaling approximately three full-time equivalent vessels. The analysis described above does not quantify the impact of Alternative 2 on these vessels. All else equal, this will lead to a slight underestimate of the economic savings Alternative 2 would provide.

Table 5

PARAMETERS FOR ASSESSING REVENUE LOSSES AVOIDED BY VESSELS THAT WOULD CONTINUE TO FISH SINGLES UNDER ALTERNATIVE 2

Fishery	Waters	Annual Catch per Trap (pounds)	Basis for Catch per Trap Estimate	Ex-Vessel Price	Price Basis	Gross Revenue per Trap	Revenue Loss Avoided	
							5% Revenue Reduction per Trap	10% Revenue Reduction per Trap
Lobster	Massachusetts SRA 1	30.2	2011 Catch Report data	$3.90	Average MA price, 2011 to 2013	$117.77	$5.89	$11.78
	Massachusetts SRA 2	30.6	2011 Catch Report data	$3.90	Average MA price, 2011 to 2013	$119.44	$5.97	$11.94
	Massachusetts SRA 3	27.4	2011 Catch Report data	$3.90	Average MA price, 2011 to 2013	$106.99	$5.35	$10.70
	Massachusetts SRA 4	34.3	2011 Catch Report data	$3.90	Average MA price, 2011 to 2013	$134.05	$6.70	$13.40
	Massachusetts SRA 5	24.9	2011 Catch Report data	$3.90	Average MA price, 2011 to 2013	$97.12	$4.86	$9.71
	Massachusetts SRA 6	29.6	2011 Catch Report data	$3.90	Average MA price, 2011 to 2013	$115.41	$5.77	$11.54
	Massachusetts SRA 7	32.1	2011 Catch Report data	$3.90	Average MA price, 2011 to 2013	$125.34	$6.27	$12.53
	Massachusetts SRA 8	32.8	2011 Catch Report data	$3.90	Average MA price, 2011 to 2013	$128.05	$6.40	$12.80
	Massachusetts SRA 9	36.6	2011 Catch Report data	$3.90	Average MA price, 2011 to 2013	$142.87	$7.14	$14.29
	Massachusetts S. Cape (SRAs 10-13)	16.2	2011 Catch Report data; average for the 3 SRAs	$3.90	Average MA price, 2011 to 2013	$63.36	$3.17	$6.34
	Massachusetts SRA 14	21.7	2011 Catch Report data	$3.90	Average MA price, 2011 to 2013	$84.67	$4.23	$8.47
	Rhode Island State Waters	24.5	GMRI catch per trap for LMA 2; LSA catch per trap for Southern New England	$4.54	Average RI price, 2011 to 2013	$111.55	$5.58	$11.15
OTP	Massachusetts SRA 10-13	326.4	Weighted mix of catch per trap for 3 MA species, using weights from VL Model	$2.97	Weighted mix of prices for 3 MA species, using weights from VL Model	$970.21	$48.51	$97.02
	Massachusetts SRA 14	106.9	Weighted mix of catch per trap for 3 MA species, using weights from VL Model	$2.97	Weighted mix of prices for 3 MA species, using weights from VL Model	$317.70	$15.89	$31.77
	RI State Waters	121.0	Average catch per trap for scup in MA Catch Report data	$0.54	Average RI price, 2011 to 2013	$65.84	$3.29	$6.58

Note: Values for gross revenue per trap may not equal the product of the catch and price values reported due to rounding.

Table 6 ESTIMATED SAVINGS UNDER ALTERNATIVE 2							
Fishery	Waters	Number of FTE Vessels in Newly Exempted State Waters	Average Traps per Affected Vessel	Estimated Annual Savings per Affected Vessel		Aggregate Annual Savings for All Vessels (Rounded to $100s)	
				Lower	Upper	Lower	Upper
Lobster	Massachusetts SRA 1	5	59	$306	$654	$1,500	$3,300
	Massachusetts SRA 2	1	68	$358	$764	$400	$800
	Massachusetts SRA 3	9	151	$701	$1,506	$6,300	$13,600
	Massachusetts SRA 4	18	66	$395	$835	$7,100	$15,000
	Massachusetts SRA 5	9	113	$471	$1,020	$4,200	$9,200
	Massachusetts SRA 6	17	106	$536	$1,146	$9,100	$19,500
	Massachusetts SRA 7	33	282	$1,574	$3,344	$51,900	$110,400
	Massachusetts SRA 8	3	182	$1,036	$2,199	$3,100	$6,600
	Massachusetts SRA 9	31	295	$1,900	$4,004	$58,900	$124,100
	Massachusetts S. Cape (SRAs 10-13)	14	139	$343	$783	$4,800	$11,000
	Massachusetts SRA 14	20	138	$488	$1,072	$9,800	$21,400
	Rhode Island State Waters	22	40	$276	$499	$6,100	$11,000
	Lobster Subtotal	**182**				**$163,200**	**$345,700**
OTP	Massachusetts SRA 10-13	41	106	$5,098	$10,225	$209,000	$419,200
	Massachusetts SRA 14	24	93	$1,441	$2,912	$34,600	$69,900
	RI State Waters	58	51	$235	$403	$13,600	$23,300
	OTP Subtotal	**123**				**$257,200**	**$512,500**
					TOTAL	**$420,400**	**$858,200**
Note: Values may not sum to the totals shown due to rounding.							

Additional Economic Considerations

Maine Islands Exemption

Alternative 2 also would establish quarter-mile buffer areas around the uninhabited islands of the Matinicus Island group, as well as the Isle of Shoals chain. Vessels fishing in these areas would not be subject to minimum trawl length requirements. As discussed above, the rationale for the buffers focuses on the likely absence of whales in close proximity to these islands, coupled with bottom conditions that favor the use of single traps.

The designation of a quarter-mile buffer zone would reduce compliance costs for vessels fishing singles around the affected islands. The effect is difficult to quantify, since the location and

timing of trap/pot activity around the islands are poorly characterized. Using aerial survey methods during peak fishing periods, the Maine Department of Marine Resources (DMR) counted approximately 1,880 vertical lines in the buffer surrounding the Matinicus Island group, and approximately 355 lines around the Isle of Shoals group. These figures suggest that relatively few vessels fish the proposed buffer areas; Maine DMR estimates roughly 20 fishermen could be affected.[6] Therefore, the aggregate economic savings associated with the continued use of singles in these areas would likely be minor. Nonetheless, the savings could be critical to individual fishermen and the economically disadvantaged island communities in which they reside.

Other Potential Savings

The analysis discussed above focuses on avoided gear conversion costs and catch impacts; however, a variety of other considerations may drive fishermen's preference for fishing singles in certain inshore areas. The following factors imply additional savings for fishermen who would be allowed to continue to fish singles under Alternative 2:

- **Gear Loss** – Some gear configuration requirements affecting fixed-gear fisheries have the potential to affect rates of gear loss. To the extent that trawling increases gear loss, vessels that would be exempt from trawling requirements under Alternative 2 could realize cost savings. As noted in the 2014 FEIS, however, the impact of trawling requirements on gear loss is difficult to predict. On the one hand, longer trawls may increase the likelihood that groundline will foul on bottom structure, increasing the potential for line to part while hauling traps. Longer trawls may also increase the potential for gear conflicts, particularly situations in which one fisherman's gear is laid across another's. On the other hand, trawling requirements may reduce gear loss by reducing the potential for encounters with whales or ship propellers, as well as by facilitating the process of grappling for gear. Longer trawls are also heavier and may be less likely to be swept away during extreme storm or tidal events. As discussed in section 6.2.4.1 of the FEIS, available gear loss studies are inconclusive regarding the relationship between gear loss and trawl length, particularly given the complex influence of other variables such as bottom structure, shipping traffic, gear density, gear conflicts, tides, currents, and weather events. The net effect of trawling in the context of all these variables is difficult to characterize or quantify. Hence, the cost/savings estimates discussed in this EA do not explicitly incorporate the impact of gear loss changes.

- **Crew –** Fishermen fishing single traps tend to fish alone (i.e., without a sternman). The Massachusetts Division of Marine Fisheries (DMF) estimates that approximately two-thirds of the vessels fishing singles in northern Massachusetts state waters are operated singlehandedly.[7] Alternative 2 may allow some vessel operators to avoid the cost of adding a sternman to assist in hauling trawls. Indeed, the limited size of many vessels fishing singles could preclude addition of crew, potentially rendering their operations non-viable without the trawling exemption.

[6] Maine Department of Marine Resources, "Maine Island Exemption Request," presented to Team on January 12, 2015.

[7] Massachusetts Division of Marine Fisheries, "Request for Limited Exemption from Ban on Single Pots," presentation to Team, January 12, 2015.

- **Vessel Modifications** – Many of the smaller vessels that fish singles may lack the deck space to accommodate trawls. Experts with Maine DMR note that some operators have modified their vessels to extend the available deck space. The operators of small vessels affected by forthcoming trawling requirements may choose to make similar modifications. To the extent that vessels operating in the proposed exemption areas avoid this expense, fishermen may realize savings beyond those estimated above.

Gear Marking Costs
The proposed action includes a set of alternative gear marking requirements that would apply to vessels fishing in waters that would be exempt from trawling requirements, as well as to vessels fishing in two additional regions (Jordan Basin and Jeffreys Ledge). The changes would require the use of colors that would differentiate gear set in these areas from gear fished in other waters. NMFS has determined, however, that the marking requirements would introduce no additional burden for the affected vessels; thus, a substantial increase in compliance costs is unlikely.

Overall, the economic impacts of the preferred alternative results in a vessel cost savings that would equal or range from $163,200 to $345,700 for lobster trap/pot vessels and $257,00 to $512,500 for other trap/pot vessels when compared to the no action alternative, resulting in a largely positive impact.

4.3 Social Impacts of the Alternatives

The social impact of Alternative 1 is the impact of the Preferred Alternative under the 2014 FEIS. Alternative 1 results in an overall slightly negative social impact. The management measures result in a negative social burden for the fishing industry. Although there were some potential positive social impacts for the fishing industry; the majority of the positive social impacts are public welfare impacts via whale watching as well as non-use benefits.[8] For a more detailed description of the impact please refer to the 2014 FEIS.

The proposed exemption to trawling requirements under Alternative 2 would have a variety of social impacts, primarily beneficial in nature. While small in scale, these impacts could have significant implications for specific subsets of fishermen.

Number and Characteristics of Affected Entities
The fishing operations affected by the proposed exemptions include fixed-gear vessels currently fishing single traps in Rhode Island state waters, most Massachusetts state waters, and the waters within the quarter-mile buffer around select islands off the Maine coast. Exhibit 3 summarizes the number of vessels the Vertical Line Model indicates would be affected; the exhibit also provides additional information presented by state fisheries managers seeking an exemption to the Plan's trawling requirements.

The Vertical Line Model generates an estimate of the number of Massachusetts and Rhode Island vessels that currently fish singles in the waters that Alternative 2 would exempt from trawling

[8] Non-use values are closely related to "spiritual" or "ethical" values emphasized by some whale conservation advocates. These observers argue that whales deserve protection from human interference and that such protection provides an intellectual or spiritual benefit to mankind.

requirements. As shown, the exemption for vessels fishing the near-coastal portions of Massachusetts SRAs 1 through 9 (northern state waters) would affect the largest number of vessels. The OTP fisheries in Massachusetts and Rhode Island state waters are also significant, and information from the states suggests that participation in these fisheries may be growing. In contrast, the number of lobster vessels fishing singles in southern Massachusetts and Rhode Island state waters is small and has been declining over time.

Table 7

VESSELS AFFECTED BY ALTERNATIVE 2

State	Fishery	Area	Vertical Line Model Estimate of Affected Vessels (Active FTE)	Other Information on Affected Vessels
MA	Lobster	Southern State Waters (SRAs 10-14)	34	• DMF estimates 109 license holders affected (active and inactive) • Declining abundance and effort
		Northern State Waters (SRAs 1-9, 0-3 miles from shore)	126	• N.A.
	OTP	Southern State Waters (SRAs 10-14)	65	• Fewer than 30 sea bass permits active in 2013 • Fewer than 70 scup permits active in 2013 • 86 conch permits active in 2013
RI	Lobster	State Waters	22	• Declining abundance and effort
	OTP	State Waters	58	• Recent growth in conch fishery; some traps fished as singles
ME	Lobster	Select Islands	N.A.	• ME aerial survey recorded 2,235 VLs in buffer areas • ME estimates approximately 20 fishermen fish the waters around the affected islands

Sources:
- MA Division of Marine Fisheries, "Massachusetts Vertical Line Rule Exemptions Request," August 18, 2014.
- MA Division of Marine Fisheries, "Request for Limited Exemption from Ban on Single Pots," presented to Team on January 12, 2015.
- RI Division of Fish and Wildlife, "Rhode Island Exemption Request to Plan Final Rule," October 3, 2014.
- ME Department of Marine Resources, "Maine Island Exemption Request," presented to Team on January 12, 2015.

The affected fisheries have several demographic and socioeconomic features in common. Operations that fish single traps in near-coastal waters tend to be smaller in scale, fishing fewer traps than vessels that operate further offshore. The Massachusetts OTP fisheries are subject to strict trap limits; conch vessels fish a maximum of 200 traps and scup vessels are limited to 50 pots. In Rhode Island, the number of trap tags ordered by the average vessel holding a multi-purpose state commercial fishing license has declined from 265 in 2003 to 88 in 2014.[9] The average traps per vessel estimated using the Vertical Line Model further reflects the small to moderate size of the affected operations (see Exhibit 2). Similarly, vessels fishing singles in

[9] Rhode Island Division of Fish and Wildlife, "Rhode Island Exemption Request to Plan Final Rule," October 3, 2014. This average does not include vessels that also hold a Federal fishing permit.

near-coastal state waters tend to be smaller in size. For example, Massachusetts DMF estimates that the median size of a lobster vessel fishing singles in northern state waters is 24 feet. Anecdotally, state fisheries managers in Massachusetts have indicated that some who fish singles do so from skiffs rather than conventional lobster boats.

The fishermen affected by the proposed exemptions have a somewhat distinct profile relative to others who are subject to Plan regulations. State fisheries managers note that the waters closest to shore are commonly fished by younger fisherman learning the trade or older fishermen with declining capabilities and smaller operations. In Massachusetts, this includes seasonal license holders, who must be full-time students. These individuals are limited to 25 traps and are licensed to take and sell lobsters to a licensed dealer only from June 15 through September 15. Seasonal fishermen generally fish from small boats; in some cases, the fishermen haul by hand rather than with a hauler/winch.[10] Similarly, many of the fishermen working the buffer areas around the Maine islands are nearing retirement or are young entrants learning the trade. These operations tend to use smaller vessels and fewer traps.[11]

Alternative 2 is expected to have little or no impact on the overall harvest of lobster or OTP species. Therefore, impacts on other entities, such as commercial fishing dealers or fish processors, are likely to be negligible.

Safety Benefits of Proposed Exemptions

The 2014 FEIS emphasized that trawling requirements could adversely affect the safety of fishermen who operate small vessels. The general effect of Alternative 2 would be to mitigate those impacts and enhance the safety of these fishermen.

The safety benefits of Alternative 2 are a function of the features of the fishing operations it would affect (see above). In general, the affected vessels are likely to be smaller and are more likely to be operated singlehandedly than vessels in areas that would remain subject to Plan requirements. Fishermen who use small vessels may find it difficult to transport, set, and haul the trawls called for under current regulations. Trawl fishing also may create unsafe conditions when grappling for traps fouled on bottom structure or untangling crossed gear.

Three key subsets of fishermen could potentially realize the greatest safety benefits from the proposed exemptions:

- **Outer Cape Fleet**: The Massachusetts DMF notes that the Outer Cape has strong currents and severe surf conditions. Entangled gear would be especially problematic for singlehanded vessels and vessels with limited hauling power. Gear conflicts with draggers and scallopers also are more common in this region relative to other waters.[12]

[10] The discussion of the seasonal lobster fishery is based upon information provided by the Massachusetts Division of Marine Fisheries: personal communication, November 7, 2012. The information was originally reported in the FEIS for the 2014 rulemaking.
[11] Personal communication with Nick Battista, Marine Programs Director, Island Institute, November 25, 2013.
[12] Massachusetts Division of Marine Fisheries, "Request for Limited Exemption from Ban on Single Pots," presented to Team on January 12, 2015.

- **Massachusetts Seasonal Fleet**: The seasonal vessels described above would also realize safety benefits. Given the size and configuration of these vessels, the limited experience of the operators, and their tendency to fish alone, trawl fishing could introduce safety risks.

- **Maine Island Fishermen**: The proposed buffer areas in Maine are fished by residents of the nearby inhabited islands. The fishermen tend to be older, are more likely to fish lone, and generally operate smaller vessels. Furthermore, the bottom structure is rocky and complex, and may contribute to the risk of hang downs.[13]

The overall impact to safety of these fishermen and others as a result of the proposed exemptions will be largely positive.

Historic fishing practices will continue to thrive as a result of the proposed exemptions. Massachusetts has a law that allows full-time students to be holders of a Student Lobster Permit, authorizing the fishing of 25 traps from June 15 to September 15. These permit holders often fish along and from small open boats. This proposed exemption would allow these vessels to continue to fish singles and thus allow for historic fishing practices to continue.

Socioeconomic Impacts

The economic and safety benefits of the proposed exemptions are likely to improve the socioeconomic condition of individual fishing operations and the communities that support them. By avoiding the costs associated with converting from singles to trawls, the affected fishing operations would likely be more profitable and sustainable. This is especially important for small operations with narrow profit margins. By improving the viability of these operations, the exemptions may also improve the standing of fishing communities in Rhode Island, Massachusetts, and Maine, many of which are under stress from the decline of key commercial species (e.g., cod and other groundfish) and other economic trends. Overall we expect positive impacts.

Socioeconomic impacts are especially notable for two sub-groups. First, participants in the Massachusetts seasonal lobster fishery may find it difficult to comply with the existing minimum trawl-length requirements. Without the proposed exemptions, participation in the seasonal fishery may diminish. If student fishermen are forced to seek summer employment in other industries, the diminished apprentice pool could negatively affect the Massachusetts lobster fishery. While the number of student license holders, vessels, and landings does not constitute a substantial portion of the Massachusetts lobster fishery, the fishery is socially and culturally important in that it helps young people learn a trade and provides a source of experienced labor for the commercial lobster fishery. Overall impacts for these sub-groups are expected to be positive.

Second, the Maine islands exemptions may improve socioeconomic conditions for the affected island communities. These communities face a variety of economic challenges, including an aging population; gentrification from an influx of seasonal homebuyers; and the decline of

[13] Maine Department of Marine Resources, "Maine Vertical Line Rule Islands Exemption Proposal," September 2014.

resource-based industries (including groundfishing). Traditional lifestyles are threatened by these and other changes. Furthermore, lobstering plays a central role in the economic well-being of island residents. For instance, in 2010, approximately 40 percent of all Matinicus residents held a lobster license.[14] Alternative 2 would reduce trawling-related compliance costs for island fishermen, improving their profitability and fortifying the sustainability of island lifestyles, resulting in a largely positive impact.

4.3 Cumulative Impacts of the Alternatives

The Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR Part 1508.25) reference the need for a cumulative effects analysis (CEA). CEQ regulations define cumulative impacts as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other action." The purpose of a CEA is to consider the effects of the Proposed Action combined with the effects of many other actions on the human environment. The CEA assesses impacts that would be missed if each action were evaluated separately. CEQ guidelines recognize that it is not practical to analyze the cumulative effects of an action from every conceivable perspective, but, rather, the intent is to focus on those effects that are truly meaningful. The CEA baseline condition consists of the present condition plus the combined effects of past, present and reasonably foreseeable future actions (summarized below).

4.3.1 Geographic and Temporal Scope

The geographic scope of the cumulative effects analysis is based on the northeast distribution of larger whales within U.S. waters. Temporally, the baseline analysis considers current condition and extends five years into the future. This timeframe was chosen because it is anticipated that a review of the success of the Plan would be developed and implemented in the next five years.

Past, Present, and Reasonably Foreseeable Future Actions

Detailed information on the past, present, and reasonably foreseeable future actions that may impact this action were evaluated as part of the cumulative effects assessment found in the environmental assessment prepared for the last substantial modification to the Plan (NMFS 2014). Much of that information remains applicable. The following provides a brief summary of updates on the pertinent non-fishing activities, the proposed rule identifying right whale critical habitat, the Northeast Multispecies FMP, and the pending Omnibus Habitat Amendment.

<u>Non-fishing Activities</u>

Traditional aquaculture within the U.S. east coast has been located in habitats, typically very close to shore in state waters, where large whales are unlikely to be present. No known large whale aquaculture interactions have been documented in U.S. waters. However, as technology has improved and the industry has expanded their interest in expanding aquaculture into new habitats farther offshore, the chance of an entanglement interaction is a cause for concern.

[14] Island Institute, *Island Indicators 2010-2011: A Status Report on Maine's Year-Round Island Communities*, 2012.

NMFS consideration of recent applications for two commercial offshore shellfish aquaculture systems off New England required section 7 Endangered Species Act consultation, because the project had the potential to affect listed species, including large whales. Ultimately, the projects were small enough in scale, with adequate measures to reduce the likelihood of interactions, so the consultation could be completed as "not likely to adversely affect," where all effects are insignificant or discountable. These two applications have piqued interest within the industry and additional applications in the coming years are expected.

Given the lack of data regarding large whale aquaculture interactions, it is difficult to assess the potential risks. NMFS has created an aquaculture advisory panel to investigate the potential for entanglement with all endangered species and to create a best practices guidance document. A literature review, including any international aquaculture interactions, is currently being conducted to further research the issue. As with all new fishing industries, offshore aquaculture will be monitored for large whale interactions and the Plan will be adjusted as needed.

Also noteworthy is the anticipated development of several wind farm sites that have been proposed along the East Coast within the population range of marine mammals. The initial construction activities of these sites may have short-term negative impacts to marine mammals through displacement. However, this displacement is expected to be highly localized and limited to comparatively small areas when considering the stock's habitat range. Regardless, NMFS is currently working with the agencies permitting these activities to ensure that impacts are as low as practicable.

Right Whale Critical Habitat

On February 20, 2015, NOAA's National Marine Fisheries Service published a proposed rule in the Federal Register (80 FR 9314) to replace the 1994 designation of critical habitat for Northern right whales in the North Atlantic Ocean with critical habitat for the North Atlantic right whale (*Eubalaena glacialis*), in accordance with section 4 of the Endangered Species Act (ESA). The proposed action will replace the existing right whale critical habitat that was designated in 1994 with two new (or expanded) areas. The existing 1994 critical habitat designation includes portions of Cape Cod Bay and Stellwagen Bank, the Great South Channel (each off the coast of Massachusetts), and waters adjacent to the coasts of Georgia and the east coast of Florida. These areas were determined to provide critical feeding, nursery, and calving habitat for right whales.

In 2003, we denied a petition to revise the 1994 critical habitat designation, but committed to continuing to analyze the data to evaluate whether other revisions might be appropriate. Subsequently, in 2008, we listed North Atlantic and North Pacific right whales as separate species under the ESA. Subject to some exceptions, the ESA requires the designation of critical habitat upon issuance of a final listing determination. In addition, in 2009, we received another petition to revise the 1994 critical habitat. In response to that petition, we indicated our intention to revise the existing 1994 critical habitat for northern right whales by continuing this rulemaking process for designating critical habitat for the newly listed species. Therefore, this action follows from both the listing of the new species and our response to the petition to revise existing critical habitat.

The two proposed new areas will result in a significant expansion of critical habitat in the northeast feeding area (Gulf of Maine/Georges Bank region) and the southeast calving area (North Carolina to Florida). The areas under consideration cover approximately 29,945 square nautical miles (nm2) of marine habitat in the Gulf of Maine/Georges Bank region (Unit 1) and Southeast U.S (Unit 2).

Critical habitat designations focus on "essential features" that may require special management considerations or protection. "Essential features" are those physical and biological features of important habitats, such as feeding areas, breeding and calving grounds, migratory routes, and sheltering locations that are essential to the conservation of the listed species. We have prepared a Biological Source Document that explains our identification of the features essential to the conservation of the North Atlantic right whale. Specifically, we have identified essential features of right whale foraging and calving habitat that may require special management considerations or protection, but are unable to identify critical habitat associated with migration and breeding.

For North Atlantic right whales, essential features of their foraging habitat are those that support the persistence and aggregation of the copepod *Calanus finmarchicus*, preferred forage for right whales (see Figure 2). The essential features of right whale calving habitat include a combination of physical oceanographic features including calm sea surface conditions, specific sea surface temperatures (7°C to 17°C), and water depths of 6 to 28 meters.

As required by section 4(b)(2) of the ESA, we have considered the economic, national security and other relevant impacts, of specifying Unit 1 and Unit 2 as critical habitat. Impacts of critical habitat designation result primarily from application of section 7 consultation requirements of the ESA, where proposed actions with a federal nexus "may affect" the essential features of critical habitat, and such projects may need to be modified to avoid such effects. Our analysis documents that no federal actions predicted to occur in the critical habitat units in the future will trigger consultation solely due to impacts to critical habitat; that is, consultations will be triggered due to impacts to the whales themselves as well as to critical habitat. Section 4(b)(2) allows, but does not require, us to consider excluding a particular area from a designation, but only if the benefits of excluding that area outweigh the benefits of including it in the designation, and if the exclusion will not result in extinction of the species. Based on our analysis of the potential impacts of the proposed critical habitat, we are not proposing to exclude all or any part of these areas.

In addition, we analyzed the potential national security impacts of the proposed designation. Based on a review of the information provided by the DoD, including the Navy, USMC, DHS, USCG and the Air Force, we conclude that there will be no national security impacts associated with the proposed action.

Fishery Management Plan Activities

Northeast Multispecies FMP – The NEFMC is currently developing Framework 53 and is intended to be implemented for the 2015 fishing year, beginning on May 1, 2015. The action

proposes to: 1) set specifications for fishing year 2015 including shared U.S./Canada quotas for transboundary Georges Bank stocks; 2) modify seasonal area closures designed to protect Gulf of Maine (GOM) cod spawning; 3) prohibit possession of GOM cod for all recreational groundfish vessels; 4) establish a mechanism to set default specifications in the event a management action is delayed; and 5) modify the sector carryover provision.

The NEFMC is also currently in developing Amendment 18, which is expected to be implemented in 2015. This action would address concerns related to preventing excessive control or ownership of fishing privileges (e.g., vessels, fishing permits, DAS, fishing quotas, potential sector contributions, ACE, sector allocations), maintaining the diversity of the fleet, addressing impacts of market forces on a highly regulated industry, and maintaining fishery infrastructure and fishing ports throughout New England. The effects of these actions on large whales are unknown at this time but a potential effect could include fishing effort shifting to other locations. NMFS will continue to coordinate with NEFMC to encourage adequate protection for large whales if needed as a result of this future Framework and Amendment.

NE Multispecies FMP actions, such as those described above and in the future, may ease restrictions on accessing previously closed areas or modifying these closed areas (e.g., cod spawning seasonal closures). However, potential marine mammal impacts are considered on a case-by-case and overall fishing effort is unlikely to increase in these areas.

Habitat Omnibus Essential Fish Habitat Amendment – The Omnibus Habitat Amendment has been under development since 2004. It includes a review and update of essential fish habitat designations, consideration of habitat areas of particular concern, an updated prey species list, and an update of non-fishing impacts. The document will also evaluate the effects of fishing on essential fish habitat and management measures to minimize the adverse effects of fishing. In 2011, during the development of the Omnibus Amendment, it was noted that there is considerable spatial overlap between the Northeast multispecies closed areas implemented under the Northeast Multispecies FMP and the current habitat areas which are closed to bottom tending mobile gears. In addition, this amendment could affect the spatial distribution of gillnet gear only -- not trap/pot -- in the Gulf of Maine. However, since overall fishing effort is unaffected by this action (only spatial distribution) and given the Team's prioritization of reducing entanglement risk in trap/pot gear, it is unlikely that this action would increase the entanglement risk to large whales. Despite the outcome of the Omnibus Habitat Amendment, the requirements of the Plan agreed upon by the Team will remain in place, including the use of sinking groundline on all fixed gear, vertical line reduction measures, weak link requirements, area closures, etc.

The Habitat PDT and Committee have developed a new set of habitat management areas designed to minimize adverse effects on EFH from fishing to the extent practicable. Another Council group, the Closed Area Technical Team (CATT), has developed additional habitat management areas, focused on vulnerable habitat important for juvenile groundfish. Throughout 2013 and 2014, the Habitat PDT and Committee in conjunction with the CATT and the Groundfish Oversight Committee refined the suite of potential

alternatives. The Council selected an initial set of preferred alternatives[15] in February 2014. The Draft Environmental Impact Statement was filed with the Environmental Protection Agency on October 10, 2014 (79 FR 61303), with a 60-day comment period that was later extended to 90 days (79 FR 68242; November 14, 2014). The DEIS comment period ended January 8, 2015. The Council held 12 public hearings from November 24, 2014, through January 7, 2015 (79 FR 66361; November 7, 2014.) The Council is scheduled to take final action in April 2015. Pending review and approval, the Amendment would be implemented in early 2016.

4.3.2 Cumulative Effects Analysis

Impacts of Past, Present and Future Foreseeable Actions

Table 8. Impacts from Past, Present and Future Foreseeable Actions

Action	Description	Biological Impacts	Economic Impacts	Social Impacts	Habitat and Physical Impacts
Non-fishing, non-regulatory impacts	These activities include, but are not limited to aquaculture, beach nourishment, coastal development, marine transportation, and dredging.	Negative at Site-impacts primarily inshore	Likely Negative - loss of fishing opportunities may occur	Mixed – some user groups benefit from these activities while others suffer localized negative impacts	Likely Negative Inshore – may lead to destruction of habitat
Regulatory Actions under the ESA and MMPA Habitat	ALWTRP and amendments, Right Whale Critical Habitat Designation, etc.	Positive – interactions have been reduced	Negative – some regulations have reduced fishing opportunity and effort	Mixed – negative impacts to some fisheries due to safety concerns, positive for general public	Neutral – no impacts expected to habitat
Fishery Management Plan Actions	Actions taken to manage stock status, prevent overfishing and protect habitat while maximizing optimum yield, including the Habitat Omnibus Amendment	Mixed but mostly positive – most stocks are not experiencing overfishing and the baseline has improved over past conditions, positive impacts to protected resources from effort controls	Mixed – Limiting fishing effort has short term negative impacts, but should lead to long term stability	Positive-Sustainable resources should support viable communities and economies	Positive – effort controls have led to an overall improvement in habitat

[15] The Council selected preferred habitat management alternatives in the three Gulf of Maine sub-regions (Western, Central, and Eastern Gulf of Maine), for the spawning alternatives in the Gulf of Maine and Georges Bank, and for three dedicated habitat research areas. Preferred habitat management alternatives were not designated in the Georges Bank or Southern New England/Great South Channel sub-regions.

Biological Impacts from all Past, Present and Future Foreseeable Actions

As summarized above and in FEIS 2014, NMFS has implemented numerous regulatory actions to reduce injuries and mortalities to protect species from gear interactions. These impacts, when combined with reductions in fishing effort through the implementation of recent groundfish and lobster management actions, have generally had positive effects on protected resources by limiting the amount of fishing gear used in their geographic range during the fishing year, which may result in reductions in the rates of gear interactions. A primary example of this impact would be through implementation of sector management to the Northeast Multispecies FMP which resulted in changes to some vessel operations with overall trends showing that trips and catch fell substantially for gillnet vessels.

All management actions described herein are likely to benefit or have negligible impacts on protected resources. Overall, the cumulative effects on large whales are likely to be positive and non-significant or negligible.

Economic and Social Impacts from all Past, Present and Future Foreseeable Actions

Gear modifications, time and area closures, and mandated reductions in fishing effort have resulted in negative economic and social impacts to fishing communities. Management measures designed to benefit protected resources and restrict fishing effort have had negative economic effects on communities. Furthermore, while the establishment of ACLs through sectors with the ultimate goal of rebuilding groundfish stocks to sustainable levels will benefit fishing communities, given the depleted status of several groundfish stocks, this could take considerable time. Some positive social impacts have occurred from management of protected resources and fishery impacts, and in the long term social impacts are expected to grow more positive as economics improve.

Impacts from the Preferred Alternative

Biological Impacts from the Preferred Alternative

Impacts from the preferred alternative are likely to have a minor, negative impact on large whales from increasing the presence of vertical lines and co-occurrence of vertical lines and SPUE. Overall there is less than a 5% increase in vertical lines and 9% increase in co-occurrence expected on an annual basis. This action is not expected to otherwise impact fishery resources or other protected resources.

Economic Impacts from the Preferred Alternative

A moderately positive impact is expected from maintaining fishing opportunities and preventing vessel modifications or increased crew requirements. Overall, the economic impacts of the preferred alternative results in a vessel cost savings that are expected to range from $163,200 to

$345,700 for lobster trap/pot vessels and $257,000 to $512,500 for other trap/pot vessels when compared to the no action alternative.

Social Impacts from the Preferred Alternative

The preferred Alternative would mitigate social impacts potentially associated with longer trawls. In general, the affected vessels are likely to be smaller and are more likely to be operated singlehandedly than vessels in areas that would remain subject to trawling requirements. Fishermen who use small vessels may find it difficult to transport, set, and haul the trawls called for under current regulations. Trawl fishing also may create unsafe conditions when grappling for traps fouled on bottom structure or untangling crossed gear. In addition, by allowing the fishing industry to fish with singles the action is proposing to maintain historic fishing practices in certain areas.

Overall, this proposed action minimizes potential economic and social impacts without increasing risk to large whales. NMFS proposes this action because it responds to comments to improve the past action while balancing risk reduction considerations. Specifically, the action decreases the number of affected vessels and would result in reductions in compliance costs while changing little in terms of entanglement risk reduction.

Table 9
Summary of Cumulative Effects Across all VECs For Each Alternative

Alternative	Biological	Economic	Social	Habitat
Alternative 1 (No Action)	Positive Effects	Slightly Negative to Negative	Slightly Negative	No Impact
Alternative 2 (Preferred)	Moderately Positive	Moderately Positive	Moderately Positive	No Impact

Cumulative Effects expected from this Action

Biological Impacts

Slightly negative, insignificant biological impacts are expected from the preferred alternative, however, this is not expected significantly alter the positive impacts from the Plan and other regulatory actions. No impact is expected to fishery resources from this action. The cumulative effect of the preferred alternative in conjunction with past and future management actions under the Plan and FMPs and take reduction measures developed under the MMPA should still continue to reduce the impact to large whales and fishery resources. Overall the cumulative impacts will remain mixed but grow more positive in the long term.

Economic Impacts

This action will have a minor positive impact on economic factors for trap/pot fishermen. Past and some present actions have had substantial, but non-significant impacts on fishing communities. Other present and future foreseeable actions are likely to create positive effects in

the long-term, however, stocks are expected to rebuild and additional fishing opportunities will likely result from future actions beyond the temporal scope of this EA. Therefore, combined with past, present and future foreseeable actions, the preferred alternatives is expected to result in minor, insignificant positive cumulative impacts on the economic environment.

Social Impacts

This action will have a minor positive impact on the social environment for communities where safety issues for seniors, students and small operators was a concern. While past, present and some future foreseeable actions are having a localized, minor negative effect on the social environment, overall the impacts to the social environment from these actions have been moderately positive. Combined with the preferred alternative, the impacts on the social environment will remain moderate and non-significantly positive.

Total Cumulative Impacts Summary

Overall, this proposed action has minor, positive potential economic and social impacts without increasing risk to large whales. NMFS proposes this action because it responds to comments to improve the past action while balancing risk reduction considerations. Specifically, the action decreases the number of affected vessels, allows fishing to continue in a safe manner for seniors and students, and would result in reductions in compliance costs while changing little in terms of entanglement risk reduction. Given the minor nature of the impacts from the preferred alternative, combined with all past, present and future foreseeable actions, no significant cumulative impacts are expected.

5 EXECUTIVE ORDER 12866 REVIEW

5.1 Determination of Significance under E.O. 12866

Under Executive Order 12866, a Regulatory Impact Review (RIR) fulfills the objective to enhance planning and coordination with respect to new and existing regulations. A review of the proposed action by the U.S. Office of Management and Budget (OMB) determined that this action is not likely to impose a significant economic impact on a substantial number of small entities and therefore is not significant for the purposes of E.O. 12866.

5.2 Initial Regulatory Flexibility Analysis

The Regulatory Flexibility Act (RFA) requires Federal regulatory agencies to examine the impacts of proposed and existing rules on small businesses, small organizations, and small governmental jurisdictions. The RFA requires that agencies develop an Initial Regulatory Flexibility Analysis (IRFA) and a Final Regulatory Flexibility Analysis (FRFA). These analyses evaluate the impact that the regulatory alternatives under consideration would have on small entities and examine ways to minimize these impacts.

In accordance with the RFA, this IRFA evaluates the Plan modifications that NMFS is considering. The IRFA addresses the following topics:

- A description of the reasons why action by the agency is being considered;
- The objectives and legal basis of the proposed modifications;
- The provisions included in the regulatory alternatives under consideration;
- The small entities potentially affected by the modifications;
- The impacts of the proposed rules on small entities;
- Reporting, recordkeeping, and other compliance requirements; and
- Rules that may duplicate, overlap, or conflict with the proposed rule.

Objectives and Legal Basis

The purpose of NMFS' action is to consider whether an amendment to the Atlantic Large Whale Take Reduction Plan is appropriate. This action is needed because NMFS state partners requested an exemption to portions of the Plan citing safety concerns. The requests followed the agreed upon procedure for requesting an exemption, thus, NMFS determined it was necessary to consider the request.

An Estimate of the Number of Small Entities Affected

The fishing operations affected by Alternative 2 include fixed-gear vessels currently fishing single traps in Rhode Island state waters, most Massachusetts state waters, and the waters within the quarter-mile buffer around select islands off the Maine coast. Exhibit 4 summarizes the number of vessels the Vertical Line Model indicates would be affected; the exhibit also provides additional information presented by state fisheries managers seeking an exemption to the Plan's trawling requirements.

The Vertical Line Model generates an estimate of the number of Massachusetts and Rhode Island vessels that currently fish singles in the waters that Alternative 2 would exempt from trawling requirements. As shown, the exemption for vessels fishing the near-coastal portions of Massachusetts SRAs 1 through 9 (northern state waters) would affect the largest number of vessels. The OTP fisheries in Massachusetts and Rhode Island state waters are also significant, and information from the states suggests that participation in these fisheries may be growing. In contrast, the number of lobster vessels fishing singles in southern Massachusetts and Rhode Island state waters is small and has been declining over time. The proposed changes would also allow the use of single traps within a quarter mile of several islands in Maine. The scale at which the Vertical Line Model characterizes the distribution of fishing gear (i.e., 10-minute grid cells) is too coarse to provide a meaningful assessment of the number of vessels this provision would affect. Research by the Maine Department of Marine Resources, however, indicates that approximately 20 vessels set gear within these areas. In all, the approximately 325 vessels

affected by Alternative 2 represent about eight percent of the roughly 4,000 vessels affected by the 2014 Plan amendments.

Table 10
VESSELS AFFECTED BY ALTERNATIVE 2

State	Fishery	Area	Vertical Line Model Estimate of Affected Vessels (Active FTE)	Other Information on Affected Vessels
MA	Lobster	Southern State Waters (SRAs 10-14)	34	• DMF estimates 109 license holders affected (active and inactive) • Declining abundance and effort
		Northern State Waters (SRAs 1-9, 0-3 miles from shore)	126	• N.A.
	OTP	Southern State Waters (SRAs 10-14)	65	• Fewer than 30 sea bass permits active in 2013 • Fewer than 70 scup permits active in 2013 • 86 conch permits active in 2013
RI	Lobster	State Waters	22	• Declining abundance and effort
	OTP	State Waters	58	• Recent growth in conch fishery; some traps fished as singles
ME	Lobster	Select Islands	N.A.	• ME aerial survey recorded 2,235 VLs in buffer areas • ME estimates approximately 20 fishermen fish the waters around the affected islands

Sources:
- MA Division of Marine Fisheries, "Massachusetts Vertical Line Rule Exemptions Request," August 18, 2014.
- MA Division of Marine Fisheries, "Request for Limited Exemption from Ban on Single Pots," presented to ALWTRT on January 12, 2015.
- RI Division of Fish and Wildlife, "Rhode Island Exemption Request to Plan Final Rule," October 3, 2014.
- ME Department of Marine Resources, "Maine Island Exemption Request," presented to Team on January 12, 2015.

The affected fisheries have several demographic and socioeconomic features in common. Operations that fish single traps in near-coastal waters tend to be smaller in scale. They fish fewer traps than vessels that operate further offshore and generally fish from smaller vessels. In addition, the waters closest to shore are commonly fished by younger fisherman learning the trade or older fishermen with declining capabilities and smaller operations. In Massachusetts, this includes seasonal license holders, who must be full-time students. These individuals are limited to 25 traps and are licensed to take and sell lobsters to a licensed dealer only from June 15 through September 15.

Alternative 2 is expected to have little or no impact on the overall harvest of lobster or OTP species. Therefore, impacts on other small entities, such as commercial fishing dealers or fish processors, are likely to be negligible.

Economic Impact of Proposed Action on Small Entities

The proposed rule changes would modify the Plan by allowing the use of single traps in Rhode Island state waters and in most Massachusetts state waters. This change would constitute an exemption to the minimum two-trap-per-trawl requirement specified for these areas under the 2014 vertical line rulemaking. Those who until now have fished singles in these areas would avoid the costs associated with converting their gear from singles to doubles, and would also

avoid other possible costs, such as a loss in revenue due to a reduction in catch. The analysis that follows estimates the likely magnitude of these impacts. Unless otherwise noted, the methods and data sources used in the analysis are consistent with those applied in Chapter 6 of the FEIS for the 2014 Plan amendments.

Analytic Methods

Gear Conversion Costs

Vessels that operate in areas that Alternative 2 would exempt from trawling requirements would avoid equipment costs associated with converting gear from singles to trawls. For vessels that must comply with the new trawling requirements, equipment costs are a function of several factors, including the total number of traps fished; the depth at which gear is set; the diameter of vertical line and groundline; the composition of line; and the distance between traps. To estimate avoided compliance costs (i.e., savings), the analysis of the economic impacts of Alternative 2 employs the same approach as applied to estimates costs in the FEIS, adjusting equipment costs from 2011 to 2013 dollars.

In addition to direct expenditures on gear, converting trap/pot gear to longer trawls requires an investment of fishermen's time. Under Alternative 2, fishermen would no longer need to spend time converting singles to trawls; hence, they would realize cost savings. This analysis values the time saved using the same methods that the FEIS applied to estimate labor costs.

It is noteworthy that in some instances, the analysis indicates that the use of singles actually increases a vessel's equipment costs, since it necessitates the use of more vertical line, buoys, and other gear elements relative to trawl configurations. Stated differently, the exemption offered under Alternative 2 could be seen as potentially increasing gear costs rather than offering savings to fishermen who continue fishing with singles. However; fishermen who choose to fish singles despite higher equipment costs presumably do so for other reasons, such as improving their catch rate. As discussed below, the analysis takes potential catch impacts into account in estimating the savings that Alternative 2 would provide.

Catch Impacts

The analysis of compliance costs associated with the recent ALWTRP trawling requirements recognized the potential for impacts on landings under certain conditions. As noted in the 2014 FEIS, singles may allow fishermen to target especially productive bottom structure where longer trawls may be inefficient or difficult to haul (e.g., because of fouling on bottom structure). In addition, singles can be distributed more widely than trawled traps. Wide distribution may aid in the search for the target species and may reduce competition between traps, increasing the catch per unit of effort.

As discussed in the FEIS, data to support a quantitative analysis of the effect of gear configuration on catch are extremely limited. Adopting the approach used in the FEIS, this analysis assumes that vessels switching from singles to doubles would experience a five to ten percent reduction in catch, yielding a lower- and upper-bound estimate of catch and revenue

impacts. Under Alternative 2, vessels operating in waters exempt from trawling requirements would be permitted to continue to fish singles, thus avoiding this adverse impact.

Catch impacts are valued using the same approach described in the FEIS. To estimate gross revenue per trap and the revenue loss avoided (i.e, the savings realized), the analysis draws on updated (2011 to 2103) ex-vessel price information obtained from the NMFS Commercial Landings database.

Estimated Economic Impacts

In aggregate, the affected vessels would realize estimated savings of $420,000 to $858,000 per year, with savings for OTP vessels being somewhat larger than those anticipated for lobster vessels (See Table 11). These include savings from avoided gear conversion costs, as well as savings from avoided catch and revenue impacts. Approximately, eight percent (= 325/4,000 vessels) would be impacted by this action.[16] Savings per vessel range from a lower bound of about $200 for Rhode Island OTP vessels to an upper bound of $11,000 for OTP vessels in southern Massachusetts waters (SRAs 10 through 13). These savings represent between four and 12 percent of gross annual revenue per vessel, depending upon the geographic area and fishery. The analysis indicates that the OTP fishery in southern Massachusetts waters would realize the greatest savings. Savings in this fishery are driven by the estimated impact on conch landings, which are a major component of revenue for the OTP fishery in this region.

Other Impacts on Small Entities

In addition to the economic impacts discussed above, small entities affected by Alternative 2 would potentially realize other savings, improved safety, and socioeconomic benefits.

Other Potential Savings

A variety of considerations may drive fishermen's preference for fishing singles in certain inshore areas. The following factors imply additional savings for fishermen who would be allowed to continue to fish singles under Alternative 2:

- **Gear Loss** – Some gear configuration requirements affecting fixed-gear fisheries have the potential to affect rates of gear loss. To the extent that trawling increases gear loss, vessels that would be exempt from trawling requirements under Alternative 2 could realize cost savings.

- **Crew –** Fishermen fishing single traps tend to fish alone (i.e., without a sternman). Alternative 2 may allow some vessel operators to avoid the cost of adding a sternman to assist in hauling trawls.

[16] As explained in the FEIS, the gear configuration, closure, and/or gear marking requirements provided for in the 2014 amendments to the ALWTRP would have an economic impact on the operations of approximately 4,006 vessels currently active in ALWTRP fisheries. The Vertical Line Model indicates that the exemptions to gear configuration requirements now under consideration would affect approximately eight percent of these vessels. Many of the vessels that are likely to be affected, however, fish relatively few traps. Therefore, the share of total economic activity (e.g., percent of gross revenue) affected by NMFS' preferred alternative is likely to be significantly less than eight percent.

- **Vessel Modifications** – Many of the smaller vessels that fish singles may lack the deck space to accommodate trawls. The operators of small vessels affected by forthcoming trawling requirements may choose to modify their vessels to better manage trawls. To the extent that vessels operating in the proposed exemption areas avoid this expense, fishermen may realize savings.

- **Maine Islands Exemption** – Alternative 2 also would establish quarter-mile buffer areas around the uninhabited islands of the Matinicus Island group, as well as the Isle of Shoals chain. Vessels fishing in these areas would not be subject to minimum trawl length requirements. The designation of a quarter-mile buffer zone would reduce compliance costs for vessels fishing singles around the affected islands.

Table 11

ESTIMATED SAVINGS UNDER ALTERNATIVE 2

Fishery	Waters	Number of FTE Vessels in Newly Exempted State Waters	Average Traps per Affected Vessel	Estimated Annual Savings per Affected Vessel (Gear Conversion and Catch Impact)		Percent Increase in Annual Gross Vessel Revenue		Aggregate Annual Savings for All Vessels (Rounded to $100s)	
				Lower	Upper	Lower	Upper	Lower	Upper
Lobster	Massachusetts SRA 1	5	59	$306	$654	4.4%	9.4%	$1,500	$3,300
	Massachusetts SRA 2	1	68	$358	$764	4.4%	9.4%	$400	$800
	Massachusetts SRA 3	9	151	$701	$1,506	4.4%	9.4%	$6,300	$13,600
	Massachusetts SRA 4	18	66	$395	$835	4.5%	9.5%	$7,100	$15,000
	Massachusetts SRA 5	9	113	$471	$1,020	4.3%	9.3%	$4,200	$9,200
	Massachusetts SRA 6	17	106	$536	$1,146	4.4%	9.4%	$9,100	$19,500
	Massachusetts SRA 7	33	282	$1,574	$3,344	4.4%	9.4%	$51,900	$110,400
	Massachusetts SRA 8	3	182	$1,036	$2,199	4.5%	9.5%	$3,100	$6,600
	Massachusetts SRA 9	31	295	$1,900	$4,004	4.5%	9.5%	$58,900	$124,100

Table 11

ESTIMATED SAVINGS UNDER ALTERNATIVE 2

Fishery	Waters	Number of FTE Vessels in Newly Exempted State Waters	Average Traps per Affected Vessel	Estimated Annual Savings per Affected Vessel (Gear Conversion and Catch Impact)		Percent Increase in Annual Gross Vessel Revenue		Aggregate Annual Savings for All Vessels (Rounded to $100s)	
				Lower	Upper	Lower	Upper	Lower	Upper
	Massachusetts S. Cape (SRAs 10-13)	14	139	$343	$783	3.9%	8.9%	$4,800	$11,000
	Massachusetts SRA 14	20	138	$488	$1,072	4.2%	9.2%	$9,800	$21,400
	Rhode Island State Waters	22	40	$276	$499	6.2%	11.2%	$6,100	$11,000
	Lobster Subtotal	**182**						**$163,200**	**$345,700**
OTP	Massachusetts SRA 10-13	41	106	$5,098	$10,225	5.0%	10.0%	$209,000	$419,200
	Massachusetts SRA 14	24	93	$1,441	$2,912	4.9%	9.9%	$34,600	$69,900
	RI State Waters	58	51	$235	$403	7.0%	12.0%	$13,600	$23,300
	OTP Subtotal	**123**						**$257,200**	**$512,500**
							TOTAL	**$420,400**	**$858,200**

Note: Values may not sum to the totals shown due to rounding.

Improved Safety
Alternative 2 would mitigate safety impacts potentially associated with longer trawls, and would therefore enhance the safety of fishermen in the exempted areas. In general, the affected vessels are likely to be smaller and are more likely to be operated singlehandedly than vessels in areas that would remain subject to trawling requirements. Fishermen who use small vessels may find it difficult to transport, set, and haul the trawls called for under current regulations. Trawl fishing also may create unsafe conditions when grappling for traps fouled on bottom structure or untangling crossed gear.

Socioeconomic Benefits
The economic and safety benefits of the proposed exemptions are likely to improve the socioeconomic condition of individual fishing operations and the communities that support them. By avoiding the costs associated with converting from singles to trawls, the affected fishing operations would likely be more profitable and sustainable. This is especially important for small operations with narrow profit margins. By improving the viability of these operations, the exemptions may also improve the standing of fishing communities in Rhode Island, Massachusetts, and Maine, many of which are under stress from the decline of key commercial species (e.g., cod and other groundfish) and other economic trends.

Reporting, Recordkeeping, and Other Compliance Requirements
This action does not introduce any new reporting, recordkeeping, or other compliance requirements, although it does modify the gear marking specifications for vessels fishing in waters that would be exempt from trawling requirements, as well as vessels fishing in other specified regions (Jordan Basin and Jeffreys Ledge). The changes would require the use of colors that would differentiate gear set in these areas from gear fished in other waters. NMFS has determined, however, that the change in gear marking specifications is unlikely to result in a substantial increase in compliance costs.

Rules that May Duplicate, Overlap, or Conflict with Proposed Action
No duplicative, overlapping, or conflicting Federal rules have been identified.

6 APPLICABLE LAWS AND REGULATIONS

6.1 Endangered Species Act

Section 7 of the ESA requires federal agencies to ensure that their actions do not jeopardize the continued existence of any species listed as threatened or endangered or result in the destruction or adverse modification of the Critical Habitat of listed species. The ESA requires the "action" agency to consult with an "expert" agency to evaluate the effects a proposed agency action may have on a listed species. If the action agency determines through preparation of a biological assessment or informal consultation that the Preferred Alternative is "not likely to adversely affect" listed species or Critical Habitat, formal consultation is not required so long as the expert agency concurs.

A Section 7 consultation was conducted on the original Plan in 1996 and concluded that the Plan was not likely to adversely affect any listed species under NMFS jurisdiction. An informal Section 7 consultation for this action is being completed for this action.

6.2 Marine Mammal Protection Act

The primary management objective of the MMPA is to maintain the health and stability of the marine ecosystem, with a goal of obtaining an optimum sustainable population of marine mammals within the carrying capacity of the habitat. Section 118 of the MMPA specifies that NMFS develop and implement TRPs to assist in the recovery or prevent the depletion of strategic marine mammal stocks that interact with Category I and Category II fisheries, which are fisheries with frequent (Category I) or occasional (Category II) serious injuries and mortalities of marine mammals. The goal is to reduce these takes incidental to fishing activities to levels below the PBR level, defined as the maximum number of animals, not including natural mortalities that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population.

6.3 Paperwork Reduction Act

This action contains a collection-of-information requirement (gear marking) for the purposes of the Paperwork Reduction Act (PRA). The appropriate PRA documents are being submitted with the rule.

6.4 Magnuson-Stevens Fishery Conservation and Management Act including Essential Fish Habitat

The area affected by the Proposed Action has been identified as EFH for 67 fish species (see Section 3.2). These species include American plaice, Atlantic cod, Atlantic halibut, Atlantic herring, Atlantic salmon, Atlantic sea scallop, haddock, monkfish (goose-fish), ocean pout, offshore hake, pollock, red hake, redfish, white hake, whiting (silver hake), windowpane flounder, winter flounder, witch flounder, yellowtail flounder, seven skate species (barndoor, clearnose, little, rosette, smooth, thorny, and winter), deep sea red crab, Atlantic mackerel, black sea bass, bluefish, butterfish, *Illex* squid, *Loligo* squid, ocean quahog, scup, spiny dogfish, summer flounder, surf clam, tilefish, albacore tuna, Atlantic angel shark, Atlantic bigeye tuna, Atlantic bluefin tuna, Atlantic sharpnose, Atlantic skipjack, Atlantic swordfish, Atlantic yellowfin tuna, basking shark, blue marlin, blue shark, dusky shark, longfin mako, porbeagle, sand tiger shark, sandbar shark, scalloped hammerhead, shortfin mako, silky shark, thresher shark, tiger shark, white marlin, and white shark. South Atlantic species include red drum, Spanish mackerel, cobia, king mackerel, and golden crab. In addition to EFH, Habitat Areas of Particular Concern (HAPC) have been identified for two species in the Northeast region, Atlantic cod and Atlantic salmon.

None of the proposed measures presented in Section 2 (Summary of Management Alternatives) of this draft EA are likely to modify fishing practices in a manner that would adversely affect EFH or HAPC further than what was analyzed in NMFS 2014. Therefore, an EFH consultation on the Proposed Action is not necessary.

6.5 Data Quality Act (Public Law 106-554)

Section 515 of Public Law 106-554 (the Data Quality Act) directs that all information products released to the public must first undergo a Pre-Dissemination Review to ensure and maximize the quality, objectivity, utility, and integrity of the information (including statistical information) disseminated by or for federal agencies. The following section addresses these requirements.

Utility

The information disseminated is intended to describe a management action and the impacts of that action. The information is intended to be useful to 1) industry participants, conservation groups, State and Federal Managers, and other interested parties so they can understand the management action, its effects, and its justification; and 2) managers and policy makers so they can choose an alternative for implementation.

Along with the proposed rule, this draft EA is the principal means by which the information contained herein is available to the public. The information provided in this document is based on the most recent available information from the relevant data sources. The development of this document and the decisions made by the Team and NMFS to propose this action are the result of a multi-stage process, including the dissemination of this draft EA. The draft EA will be improved based on comments from the public, the fishing industry, Team members, and NMFS.

This document is available in several formats, including printed publication, and online through the NMFS Greater Atlantic Region Fisheries Office Web page. The *Federal Register* notice that announces the proposed rule also makes these documents available on the Web site for the Regional Office and through the www.Regulations.gov Web site. The *Federal Register* document will provide metric conversions for all measurements.

Integrity

Prior to dissemination, information associated with this action, independent of the specific intended distribution mechanism, is safeguarded from improper access, modification, or destruction, to a degree commensurate with the risk and magnitude of harm that could result from the loss, misuse, or unauthorized access to or modification of such information. All electronic information disseminated by NMFS adheres to the standards set out in "Security of Automated Information Resources," of OMB Circular A-130, as well as the Computer Security Act and the Government Information Security Act. All confidential information (e.g., dealer purchase reports) is safeguarded pursuant to the Privacy Act; Titles 13, 15, and 22 of the U.S. Code (confidentiality of census, business, and financial information); the Confidentiality of Statistics provisions of the Magnuson-Stevens Act; and NOAA Administrative Order 216-100, Protection of Confidential Fisheries Statistics.

Information and data, including statistics that may be considered confidential, are used in this draft EA in the description of the fisheries and analysis of impacts associated with this document. This information is needed to assess the impacts of the alternatives considered as required under

the National Environmental Policy Act (NEPA) and Regulatory Flexibility Act for the preparation of an environmental assessment/regulatory flexibility act analysis/regulatory impact review. NMFS complied with all relevant statutory and regulatory requirements as well as NOAA's policy regarding confidentiality of data. In addition, confidential data are safeguarded to prevent improper disclosure or unauthorized use. Finally, the information made available to the public is presented in aggregate, summary, or other such form that does not disclose the identity or business of any person.

Objectivity

The NOAA Information Quality Guidelines standards for Natural Resource Plans state that plans be presented in an accurate, clear, complete, and unbiased manner. The proposed management measures are presented in a clear and easily understandable manner with detailed descriptions that explain the decision making process and the implications of management measures on marine resources and the public. Although the alternatives considered in this document rely upon scientific information, analyses, and conclusions, clear distinctions are drawn between policy choices and the supporting science. In addition, the scientific information relied upon in the development, drafting, and publication of this draft EA was properly cited, and a list of references and appendices are provided. Finally, this document was reviewed by a variety of biologists, policy analysts, economists, and attorneys from NMFS' Greater Atlantic Region and Northeast Fisheries Science Center (NEFSC).

Preparation of this document required input from the Team, the NEFSC, the Greater Atlantic Region Fisheries Office (GARFO), and NMFS Headquarters. The review process involved the NEFSC, the GARFO, and NMFS Headquarters. The NEFSC's technical review is conducted by senior level scientists with specialties in population dynamics, stock assessment methods, population biology, and the social sciences. Review by staff at the NMFS Regional and Headquarters Offices is conducted by those with expertise in protected species management and policy, and compliance with the applicable law. Final approval of the action proposed in this document and clearance of any rules prepared to implement resulting regulations is conducted by staff at NMFS Headquarters, the Department of Commerce, and the U.S. Office of Management and Budget.

6.6 Administrative Procedure Act

The Federal Administrative Procedure Act (APA) establishes procedural requirements applicable to informal rulemaking by Federal agencies. The purpose of the APA is to ensure public access to the Federal rulemaking process and to give the public notice and an opportunity to comment before the agency promulgates new regulations. NMFS is not requesting a waiver from the requirements of the APA for notice and comment on this rulemaking. However, NMFS is planning to waive the typical "cooling off" period after which the final rule is published but before the Plan amendments take effect. This will be done to prevent some of the previous requirements from going into effect on June 1, 2015 in certain areas.

6.7 Coastal Zone Management Act

Section 307(c)(1) of the Federal Coastal Zone Management Act of 1972 requires that all Federal activities that affect any land or water use or natural resource of the coastal zone be consistent with approved state coastal zone management programs to the maximum extent practicable. NMFS has determined that this action is consistent to the maximum extent practicable with the enforceable policies of approved Coastal Zone Management Programs of Maine, Massachusetts, New Hampshire, and Rhode Island. Letters documenting NMFS' determination, along with this draft EA and proposed rule are being sent to the coastal zone management program offices of these states. Interested states are expected to provide comments prior to the close of the proposed rulemaking comment period and prior to final rulemaking.

6.8 Executive Order (E.O.) 13132 Federalism

E.O. 13132, otherwise known as the Federalism E.O., was signed by President Clinton on August 4, 1999, and published in the *Federal Register* on August 10, 1999 (64 FR 43255). This E.O. is intended to guide Federal agencies in the formulation and implementation of "policies that have federal implications." Such policies include regulations, legislative comments or proposed legislation, and other policy statements or actions that have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government. E.O. 13132 requires federal agencies to have a process to ensure meaningful and timely input by state and local officials in the development of regulatory policies that have federalism implications. A Federal summary impact statement is also required for rules that have federalism implications.

NMFS believes that these proposed regulations are consistent with E.O. 13132, Federalism. The majority of these regulations were recommended by the Team, which includes agency representatives from fishery resource agencies in each of the states affected by this action. In addition, the Assistant Secretary for Legislative and Intergovernmental Affairs is providing notice of the Preferred Alternative to appropriate officials in all the affected coastal states during the public comment period. Any response received will be addressed in the final rule and with a response to the appropriate official.

6.9 Regulatory Flexibility Act

The purpose of the Regulatory Flexibility Act (RFA) is to reduce the impacts of burdensome regulations and recordkeeping requirements on small businesses. To achieve this goal, the RFA requires Federal agencies to describe and analyze the effects of proposed regulations, and possible alternatives, on small business entities. A memorandum has been prepared for the Chief Counsel for Advocacy of the Small Business Administration including an Initial Regulatory Flexibility Analysis of the proposed action, if implemented, would not have a significant economic impact on a substantial number of small entities.

6.10 E.O. 12866 Regulatory Planning and Review

The purpose of E.O. 12866, otherwise known as Regulatory Planning and Review, is to enhance planning and coordination with respect to new and existing regulations. This E.O. requires the Office of Management and Budget to review regulatory programs that are considered to be "significant." A review of the proposed action by OMB determined that this action is not significant for the purposes of E.O. 12866.

6.11 National Environmental Policy Act

6.11.1 Finding of No Significant Impact

The Council on Environmental Quality (CEQ) Regulations state that the determination of significance using an analysis of effects requires examination of both context and intensity, and lists ten criteria for intensity (40 CFR 1508.27). In addition, the National Oceanic and Atmospheric Administration Administrative Order (NAO) 216-6 Section 6.01b. 1 - 11 provides eleven criteria, the same ten as the CEQ Regulations and one additional, for determining whether the impacts of a proposed action are significant. Each criterion is discussed below with respect to the proposed action and considered individually as well as in combination with the others.

1. Can the proposed action reasonably be expected to cause both beneficial and adverse impacts that overall may result in a significant effect, even if the effect will be beneficial?

> No, the proposed action is expected to result in a minor negative effect on the biological VEC and a largely positive effect for economic and social VECs. Refer to Section 4.3.2 for a description of effects of the proposed action.

2. Can the proposed action reasonably be expected to significantly affect public health or safety?

> The proposed action is expected to have a minor, positive impacts on public health and safety. The action responds to safety concerns regarding the previous requirements. This action will decrease the potential safety and operational impacts of current requirements for fishermen using smaller vessels. This impact is not considered significant because we expect that this action will allow many fishermen to continue to fish as they currently fish rather than fish in an unsafe manner. Refer to Section 4.2 for a description of the social impacts of the proposed action.

3. Can the proposed action reasonably be expected to result in significant impacts to unique characteristics of the geographic area, such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas?

> The proposed action cannot be reasonably expected to result in substantial impacts to unique or ecologically critical areas. Right whale critical habitat, designated HAPCs, EFH for fish species, and the Stellwagen Bank National Marine Sanctuary all occur within the broad management areas of the Plan. However, the structures that support the copepod and plankton abundance that provide the critical habitat's value to right whales

are not likely to be affected by gillnets or trap/pots. Further, the proposed action is not likely to modify fishing practices in a manner that would adversely affect EFH, HAPC, right whale critical habitat, or Stellwagen Bank National Marine Sanctuary.

4. Are the proposed action's effects on the quality of the human environment likely to be highly controversial?

The effects on the quality of the human environment are not likely to be highly controversial. The proposed action is relieving a restriction in an attempt to improve the quality of the human environment resulting from previous restrictions. We fully vetted this proposal with the Team and have received a majority recommendation supporting this proposed action. This action was seen by the Team as an integrated package that balances risk to large whales with small vessel and fleet safety and operational and economic considerations while still generating information that will be important to informing future Team deliberations

5. Are the proposed action's effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

The proposed action is not expected to result in uncertainty or unknown risks. The proposed action considers permitting fishing in a manner that was previously permitted. Therefore there is no uncertainty anticipated and there are no unknown risks expected.

6. Can the proposed action reasonably be expected to establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration?

The proposed action is not expected to establish a precedent for future actions or represent a decision about a future action. However, the Team may consider additional regulations in the future, but is not currently required to do so under the MMPA. Future management measures, including additional exemptions if requested, that are recommended by the Team will be considered independent of the proposed action. Known future foreseeable actions were considered in Section 4.3.1.

7. Is the proposed action related to other actions that when considered together will have individually insignificant but cumulatively significant impacts?

The proposed action is not related to other actions that when considered together will have individually insignificant but cumulative significant impacts, see Section 4.3 for further detail Although modifications to the Plan may be considered in the future, no such action has been developed at this time.

8. Can the proposed action reasonably be expected to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources?

The proposed action is not likely to affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, or cause loss or destruction of significant scientific, cultural, or historical resources. Although there are shipwrecks present in areas where fishing occurs, including some registered on the National Register of Historic Places, vessels try to avoid fishing too close to wrecks due to the possible loss or entanglement of fishing gear. Therefore, it is not likely that the proposed action would adversely affect the historic resources.

9. Can the proposed action reasonably be expected to have a significant impact on endangered or threatened species, or their critical habitat as defined under the Endangered Species Act of 1973?

The proposed action cannot reasonably be expected to significantly affect any endangered or threatened species or their critical habitat. Overall, we consider the proposed action to have a slightly negative, insignificant impact on large whales but not one that substantially prevents the Plan from achieving its goals as defined in the MMPA .

10. Can the proposed action reasonably be expected to threaten a violation of Federal, state, or local law or requirements imposed for environmental protection?

The proposed action is not expected to violate Federal, State, or local environmental laws see Chapter 6 for more detail. In particular, the proposed action is in compliance with the MMPA and the ESA. The purpose of the proposed action is to continue managing Northeast gillnet and trap/pot fisheries according to MMPA requirements through modification of the Plan. The MMPA requires the implementation of measures, through a take reduction plan, to reduce the serious injury and mortality of marine mammals in U.S. commercial fisheries to levels that are below each stock's PBR. Federal, State, and fishery management agency representatives participated on the Team, helping to ensure consistency with Federal, State and local laws. Additionally, NMFS forwarded the draft EA to the coastal zone management programs in each coastal state to ensure compliance with State land, water use, and natural resource management programs.

11. Can the proposed action reasonably be expected to result in the introduction or spread of a nonindigenous species?

The proposed action would not result in the introduction or spread of non-indigenous species. The proposed action will not result in U.S. vessels leaving regional waters, or result in foreign vessels operating in U.S. waters.

DETERMINATION

In view of the information presented in this document and the analysis contained in the supporting Environmental Assessment prepared for Atlantic Large Whale Take Reduction Plan modifications, it is hereby determined that the proposed action will not significantly impact the quality of the human environment as described above and in the supporting Environmental Assessment. In addition, all beneficial and adverse impacts of the proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an environmental impact statement for this action is not necessary.

MAR 11 2015

John K. Bullard
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Date

7 REFERENCES

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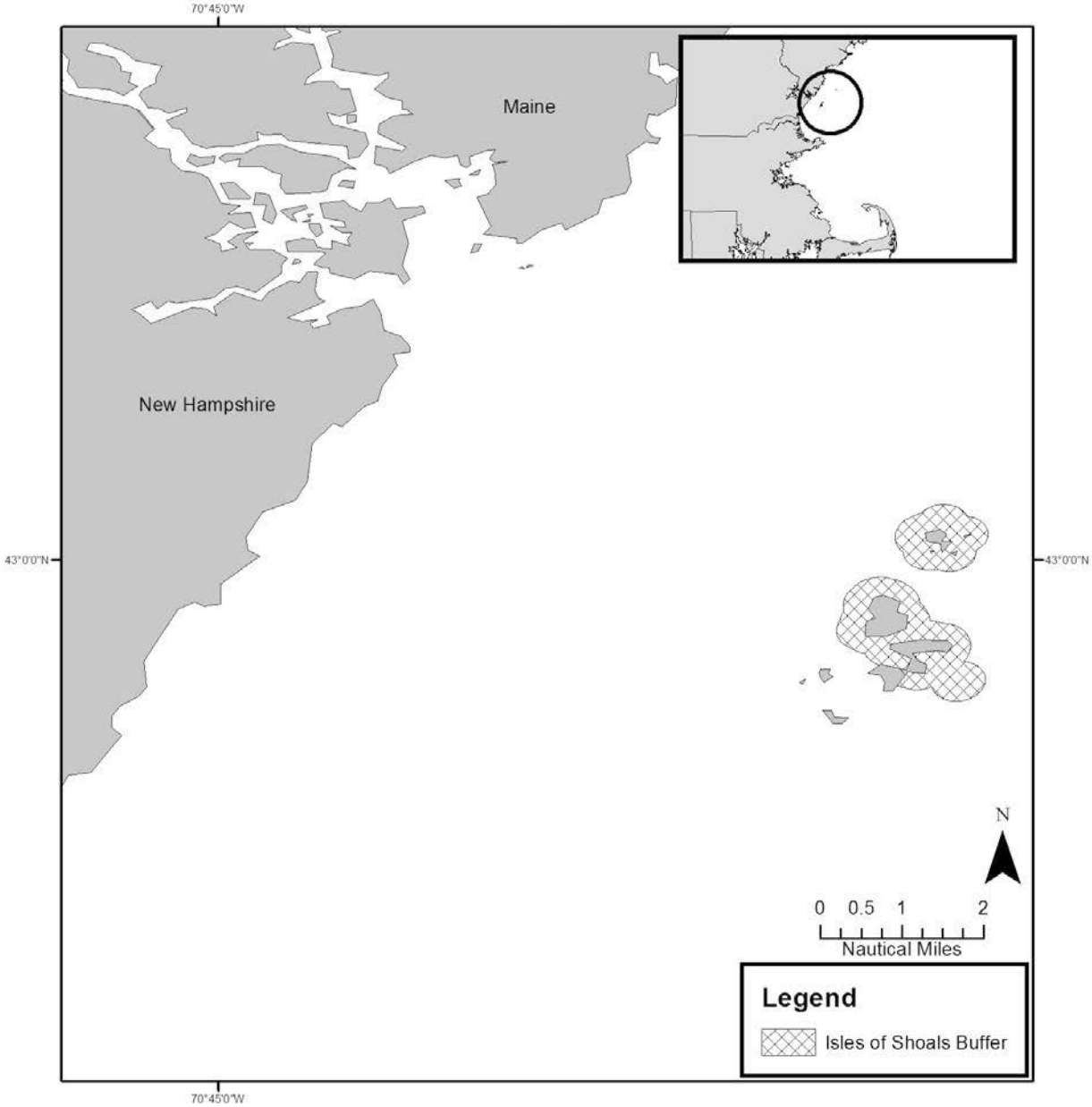
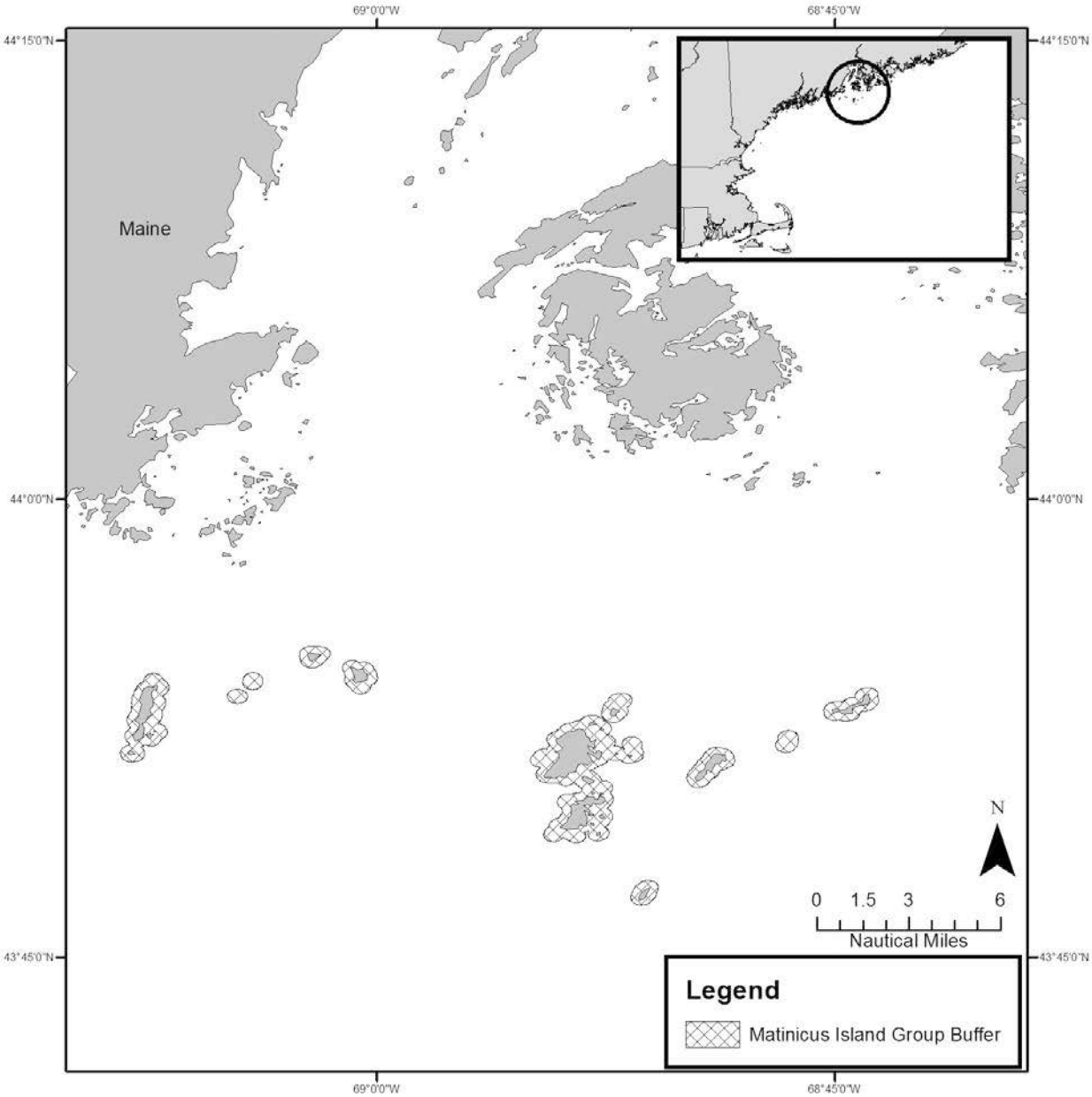
ATTACHMENT 1

Figure 1. Proposed Isle of Shoals ¼ mile Buffer Waters



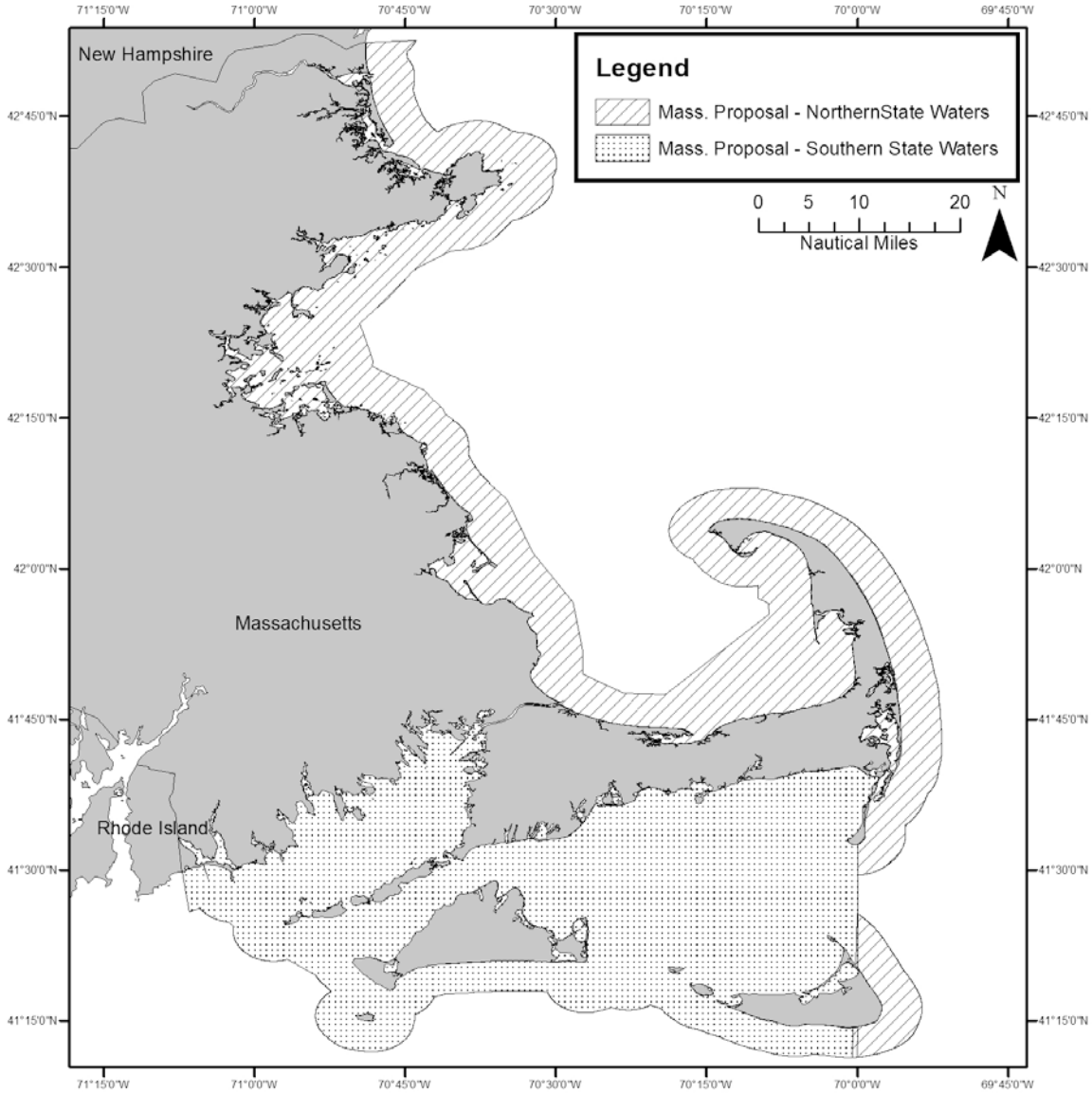
- Implement a ¼ mile buffer in waters surrounding the Isle of Shoals, Maine. Those fishing in the buffer are exempt from the new minimum number of traps per trawl requirement.
- Those fishing singles in the buffer waters would be required to mark gear with three red and orange marks.

Figure 2. Proposed Matinicus Island Group ¼ mile Buffer Waters



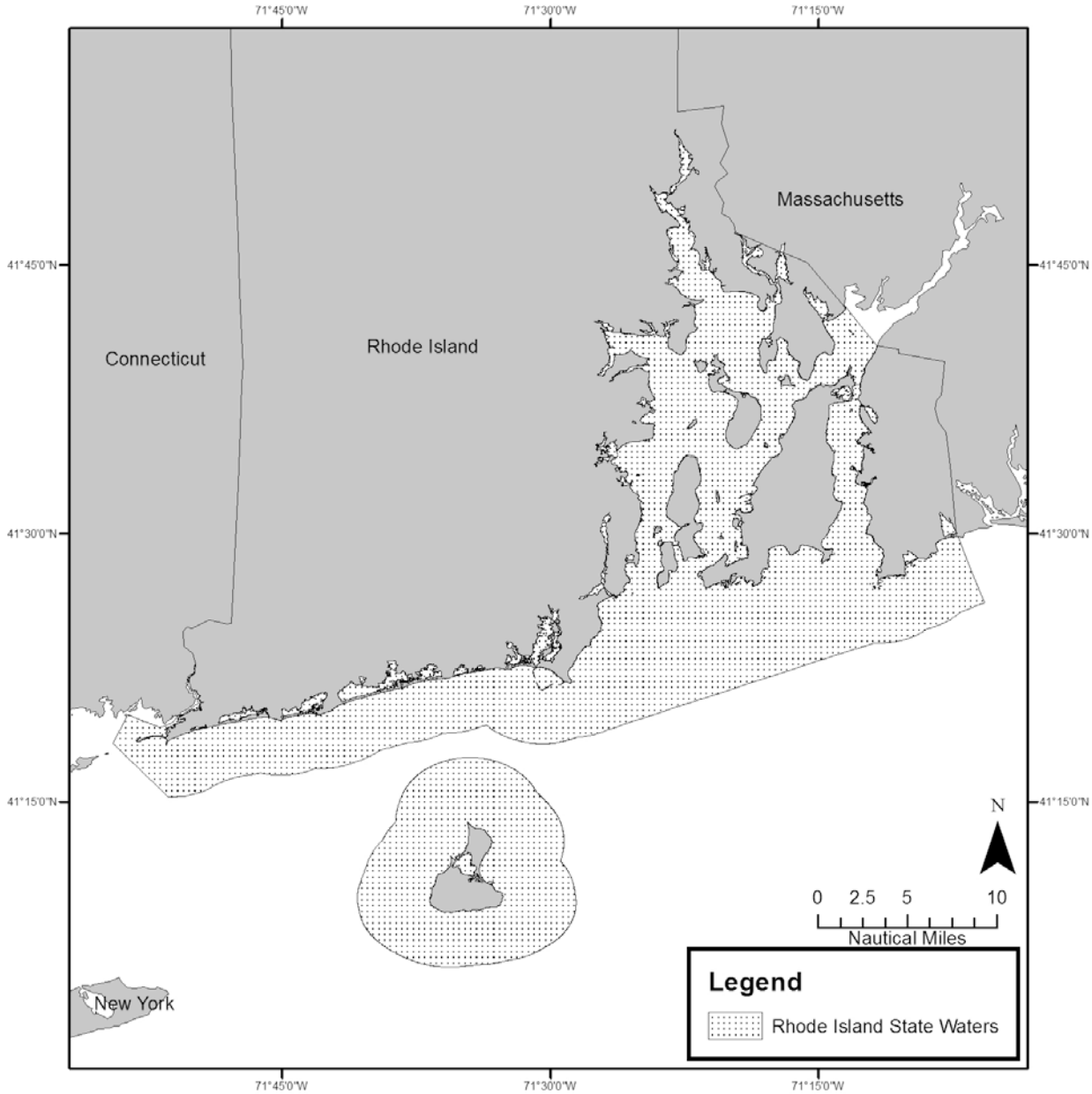
- Implement a ¼ mile buffer in waters surrounding the Matinicus Island Group. Those fishing in the buffer are exempt from the new minimum number of traps per trawl requirement.

Figure 3. Proposed Massachusetts Exempted Waters



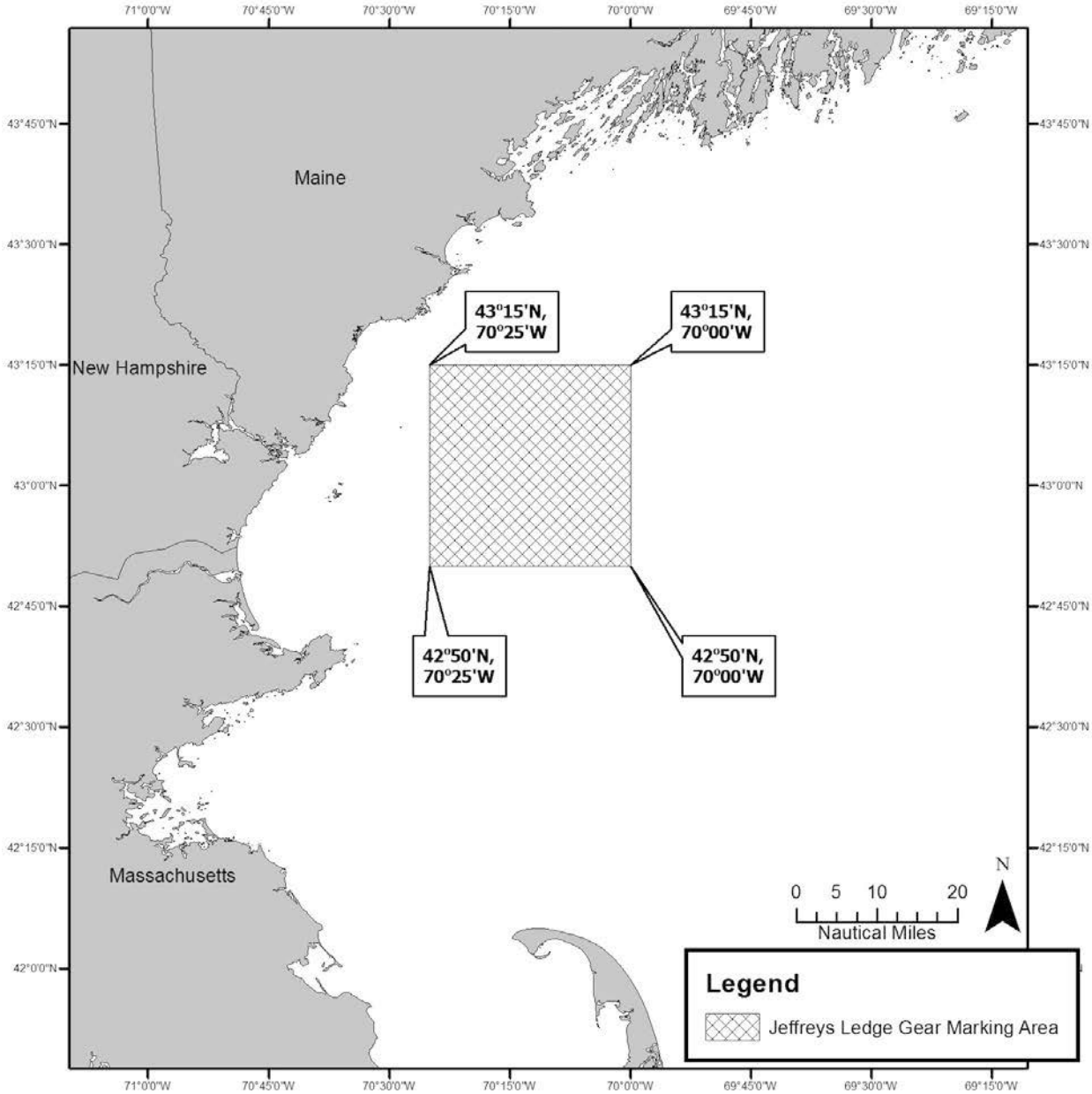
- Exempt Massachusetts state waters south of 41˚ 40’ N and west of 70˚ 00’ W to the Rhode Island border.
    - Those fishing singles in these southern LMA 2 state waters would be required to mark gear with three red and black marks.
- Exempt Massachusetts state waters north and east of Cape Cod from 0-3 miles from shore, including a portion of water along the 60 ft. contour in East Cape Cod Bay. Those fishing singles in these northern LMA 1 state waters would be required to mark gear with three red and white marks.
    - Those fishing singles in Outer Cape state waters would be required to mark gear with three red and yellow marks.
- Allow those fishing with trawls equal to and greater than four traps to fish two endlines.

Figure 4. Proposed Rhode Island Exempted Waters



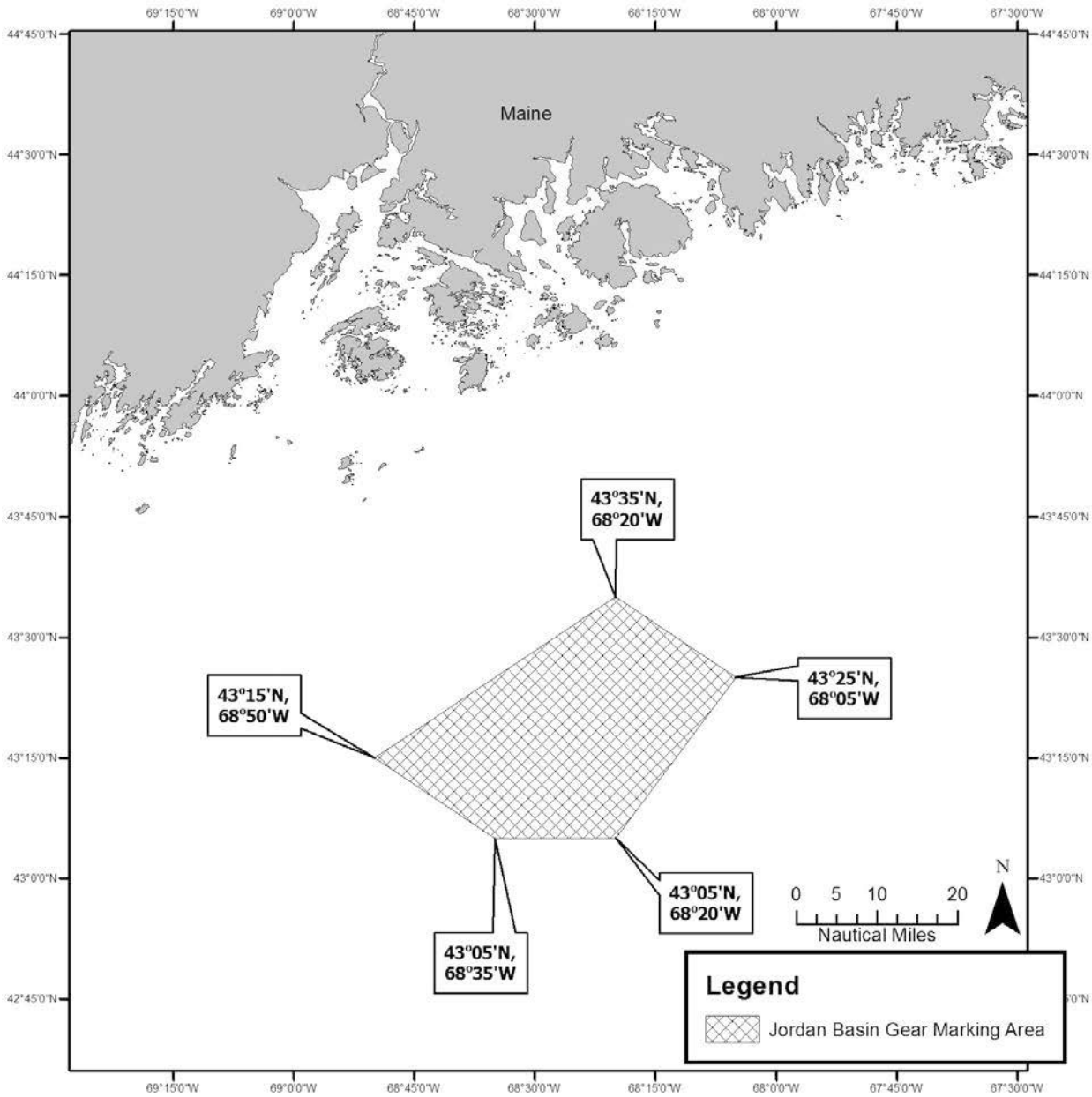
- Exempt Rhode Island state waters from the minimum number of traps per trawl requirement.
- Those fishing singles in Rhode Island state waters would be required to mark gear with three red and blue marks.

Figure 5. Proposed Jeffreys Ledge Area for Trap/Pot and Gillnet Gear Marking



- Those fishing trap/pot in this area would be required to mark gear with three red and green marks.
- Those fishing gillnet in this area would be required to mark gear with three green and black marks.

Figure 6. Proposed Jordan Basin Area for Trap/Pot and Gillnet Gear Marking



- Those fishing trap/pot in this area would be required to mark gear with three black (or red) and purple marks.
- Those fishing gillnet in this area would be required to mark gear with three green and yellow marks.