

# **DEVELOPING MODIFICATIONS TO THE ATLANTIC LARGE WHALE TAKE REDUCTION PLAN TO REDUCE SERIOUS INJURY AND MORTALITY OF NORTH ATLANTIC RIGHT WHALES**

## **SCOPING DOCUMENT**

August 2019

### **PURPOSE**

NOAA's National Marine Fisheries Service (NOAA Fisheries) intends to expand large whale conservation efforts by amending regulations that implement the Atlantic Large Whale Take Reduction Plan (ALWTRP). As part of that process, NOAA Fisheries is developing an Environmental Impact Statement (EIS). The purpose of scoping is to involve the public in developing ideas to reduce the risk of serious injury or mortality of large whales that interact with vertical lines (buoy lines) from commercial trap/pot and gillnet fishing gear. Feedback from scoping informs development of the EIS.

### **BACKGROUND**

Right whales are listed as endangered under the Endangered Species Act and considered depleted under the Marine Mammal Protection Act (MMPA). NOAA Fisheries formed the Atlantic Large Whale Take Reduction Team (Team) in 1997 to consider serious injuries and mortalities caused by incidental take in commercial fisheries of right whales as well as humpback and fin whales. The Team develops and recommends measures to reduce the impact of commercial fisheries on large whales in the Atlantic to achieve the Potential Biological Removal (PBR) level. This 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.

The Team has previously recommended modifications that NOAA Fisheries implemented as regulations to reduce the impacts of fishing gear on large whales in the region, such as area closures, gear configuration requirements, and gear marking rules. The most recent rule in 2014, amended in 2015, was implemented to reduce the risk of entanglement by decreasing the number of buoy lines, vertical lines in the water column that identify where fishing gear is set and allow fishermen to retrieve the gear.

The North Atlantic right whale population has been declining since 2010, and the most recent estimate indicates a population of no more than 411 individuals at the end of 2017. The decline has been exacerbated by an Unusual Mortality Event in 2017, following a calving season (2016-2017) with only five documented births and coinciding with the first calving season since monitoring began in 1990 with no new births documented (2017-2018). While climate change and the availability and redistribution of prey appear to be contributing to the population's declining fitness, a primary cause of significant injury and mortality of North Atlantic right whales is entanglement in fishing gear. With mortalities continuing to outpace births, the population decline is continuing, and further mitigation of entanglements that cause serious injury or mortality is needed.

The Marine Mammal Protection Act mandates that NOAA Fisheries develop and implement Take Reduction Plans for preventing the depletion and assisting in the recovery of certain marine mammal

stocks that are seriously injured or killed in commercial fisheries. Pursuant to the MMPA, NOAA Fisheries convenes Take Reduction Teams, composed of stakeholders that make recommendations for reducing serious injuries and deaths to acceptable levels. The teams design each plan to reduce bycatch within a specific timeframe through a combination of voluntary and regulatory measures implemented by NOAA Fisheries.

The MMPA establishes a serious injury and mortality target for U.S. commercial fisheries based on a marine mammal stock's abundance and status. For right whales, that Potential Biological Removal level (PBR) is currently 0.9 right whales per year. In developing an associated risk reduction target to meet PBR, NOAA Fisheries considered the proportion of past serious injuries and mortalities that could be assigned to U.S. or Canadian fisheries as determined by analyzing gear that was taken off entangled whales. Additional consideration was given to the proportion of time right whales spend in each country's waters. Based on these considerations, a take reduction target of 60 percent was identified for New England trap/pot fisheries to reduce serious injuries and mortalities in U.S. commercial fisheries to less than one right whale a year.

The NOAA Fisheries Northeast Fisheries Science Center (NEFSC) produced a Decision Support Tool to help the Team gauge how risk reduction measures being considered contribute to the take reduction goal being identified. The foundation of the tool's risk measure, multiplying gear density by whale density in a given area and time, has undergone scientific peer review and is a [published method](#) for assessing risk of pot gear entanglements in North Atlantic right whales. In developing the tool, the NEFSC recognized that there was greater variation in gear types and some gear types are likely more dangerous to right whales. As such, a severity modifier was developed to account for the fact that lighter gear is commonly fished in coastal waters.

During their meeting in April 2019, the Team provided near-consensus recommendations to NOAA Fisheries to reduce entanglements that cause right whale serious injuries and mortalities in trap/pot gear in New England waters by more than half to achieve the PBR level of less than one right whale per year in New England trap/pot fisheries. At the 2019 meeting, the Team discussed several management options to decrease the risk and severity of entanglements in these fisheries including: vertical line reduction through trap or line limits and ropeless fishing technologies, gear modifications to reduce the breaking strength of ropes so entangled whales could break free, and area closures where right whales can be predicted to aggregate seasonally. Ultimately, all but one Team member present recommended jurisdiction-specific vertical line reductions and gear modifications.

**Table 1. April 2019 Take Reduction Framework.**

<b>April 2019 Take Reduction Framework</b>			
<b>State/ Jurisdiction</b>	<b>Vertical Line Reduction</b>	<b>Gear Modification</b>	<b>Est. % Risk Reduction</b>
Maine permitted vessels through LMA1	50% vertical line reduction through LMA1 (50% risk reduction)	LMA 1 - Weak rope outside of 3 miles on $\frac{3}{4}$ length of buoy line (toppers) (11.6% risk reduction)	61.6%
NH LMA1	30% vertical line reduction (30% risk reduction)	1700 lb. breaking strength or sleeves (28.5 % risk reduction)	58.5%
Massachusetts LMA1 and Outer Cape	Mass Bay Restricted Area Closure (24% risk reduction)	Sleeves or 1700 lb. breaking strength or equivalent (11% risk reduction)	60%
	30% vertical line reduction, not including MBRA fishermen (-5%) (25% risk reduction)		
LMA 2 - Massachusetts and Rhode Island	18% (2018 - 2020) vertical line reduction (18% risk reduction)	1700 lb. or equivalent (42% risk reduction)	60%
LMA 2 / 3 Overlap – Massachusetts, Rhode Island	Trawling up to 30 traps (from 20) (30% risk reduction for that area)		
LMA 3	Accelerate planned line reduction (18% risk reduction)	Rapid research on alternatives to introduce weak rope or weak link elements in to offshore line	18% + TBD Commit to 60%

In addition to changes in line numbers and strength, the Team strongly supported amplification of gear marking requirements to reduce uncertainty about where and in what fisheries large whales are entangled. During a June 2019 teleconference, the Team supported consideration of expanding the markings on buoy lines to all U.S. fixed gear fisheries including previously exempted waters, increasing spatial resolution in nearshore New England fisheries (“red” areas), adding a three-foot long mark within one fathom of the surface buoy system, and increasing the frequency of marks on buoy lines. Further information regarding that discussion can be found here: <https://go.usa.gov/xmSS3>.

You can find more information about the [Atlantic Large Whale Take Reduction Plan](#) and the [April 2019 Team meeting](#) that resulted in the recommendations to modify the Take Reduction Plan on our website.

*National Environmental Policy Act (NEPA)*. NEPA requires federal agencies to consider the environmental impacts (positive and negative) of their major proposed actions and through the development of reasonable alternatives to those actions. To comply with NEPA, federal agencies must prepare a detailed statement on the environmental impacts of any major federal action significantly affecting the quality of the human environment. This detailed statement is known as an EIS. NOAA Fisheries will prepare an EIS to evaluate the environmental effects of implementing further conservation measures to reduce the risk of serious injury and mortality of large whales that become entangled in the vertical lines of trap/pot and gillnet fishing gear.

We want your input on viable modifications to fishing practices that will reduce the risk of entanglements in vertical line. Following the recommendations of the Team, options may consist of gear modifications to reduce rope strength to allow right whales to break free of gear, or measures that would reduce the number of endlines, including trawling up gear (e.g., increasing the number of traps per trawl to reduce the number of endlines). We are also looking for input on gear marking to reduce uncertainty about where entanglements originate, and on closed areas as a strategy for line reduction. We are working in close collaboration with the New England states as we develop compatible measures for federal waters.

NOAA Fisheries is committed to obtaining the best scientific information available, including working directly with stakeholders to develop viable options that will work for fishermen and meet the requirements put forth under the Endangered Species and Marine Mammal Protection acts.

Along with details listed below, we would like input on:

- The geographic scope of our efforts. The Take Reduction Team recommendations are focused on New England waters, north of approximately 40°30’N, and primarily trap/pot fisheries, with an understanding that Mid Atlantic and gillnets will be considered during future Team meetings
- Scope of environmental impacts we should consider:
  - Human environment: cost of measures in materials, time, impacts on fishing , interaction with other actions such as lobster management measures, energy development
  - Right whales and other large whales
  - Other valuable ecosystem components (other fish species, protected species)

## HOW CAN I HELP?

In addition to providing input on the scope of actions we will analyze in our DEIS, below we describe the elements that we are planning to analyze. We would like input on these elements and would particularly appreciate information from fishermen regarding methods they could use to achieve these risk reduction measures including reducing endlines, modifying gear so that right whales can break free without serious injury or mortality, marking gear to reduce uncertainty, and seasonal closures they believe would reduce endlines. Particularly we are interested in how these risk reduction measures affect their operational procedures. Background information on the risk reduction elements can be found in the April 2019 Team meeting notes found here: <https://go.usa.gov/xmSk3> and in the presentations for the scoping meetings, on our website at <https://go.usa.gov/xhSAP>.

## HOW DO I COMMENT?

- Provide verbal comments at one of the scoping meetings in your area.
- Provide written comments via-
  - *Electronic Submission:* Submit all electronic public comments by sending an email to [nmfs.gar.ALWTRT2019@noaa.gov](mailto:nmfs.gar.ALWTRT2019@noaa.gov) using the subject line “Comments on Atlantic Large Whale Take Reduction Plan Scoping.”
  - *Mail:* Submit written comments to Michael Pentony, Regional Administrator, National Marine Fisheries Service, 55 Great Republic Drive, Gloucester, MA 01930-2276. Mark the outside of the envelope: “Comments on Atlantic Large Whale Take Reduction Plan Scoping.”
- Comments are due by **September 16, 2019**.

OPTIONS AND CONSIDERATIONS

**1. Line Reduction Options and Considerations:**

<b>Endline reduction</b>	<b>Potential considerations</b>	<b>Potential benefits</b>
Trawling up	<ol style="list-style-type: none"> <li>1. Equipment cost</li> <li>2. Labor cost</li> <li>3. Catch impacts</li> <li>4. Gear loss</li> <li>5. Additional crew</li> <li>6. Vessel modification</li> <li>7. Safety</li> </ol>	<ol style="list-style-type: none"> <li>8. Savings on endlines and buoys</li> <li>9. Savings on fuel</li> </ol>
Endline allocation	<ol style="list-style-type: none"> <li>1. Similar to above list</li> </ol>	<ol style="list-style-type: none"> <li>2. Fishermen choose reduction method</li> </ol>
Trap reduction	<ol style="list-style-type: none"> <li>1. Catch impact</li> </ol>	<ol style="list-style-type: none"> <li>2. Savings on endlines and buoys</li> <li>3. Savings on traps</li> <li>4. Savings on other lines</li> </ol>

**2. Weak Rope Options and Considerations:**

<b>Weak Rope</b>	<b>Potential considerations</b>	<b>Potential benefits</b>
Weak Rope	<ol style="list-style-type: none"> <li>1. Gear replacement costs</li> <li>2. Gear modification (time) costs</li> <li>3. Gear loss costs</li> <li>4. More frequent replacement</li> <li>5. Increasing operating risks</li> </ol>	<ol style="list-style-type: none"> <li>6. Avoids area closure</li> <li>7. Savings when replacing new ropes</li> </ol>
Intermittent weak rope: Sleeves, spliced in weak rope, or other “contrivances” (menu) every 6 - 10 fathoms	<ol style="list-style-type: none"> <li>1. Gear modification costs (lower than full rope replacement)</li> <li>2. Gear loss costs</li> </ol>	<ol style="list-style-type: none"> <li>3. Avoid area closure</li> <li>4. Less costly than changing rope</li> </ol>
Timed Tension Line Cutter	<ol style="list-style-type: none"> <li>1. Device costs (TTLC not yet commercially available)</li> <li>2. Gear loss due to device failure or gear conflict</li> <li>3. Can result in extensive lengths of line on whales</li> </ol>	<ol style="list-style-type: none"> <li>4. Avoid area closure</li> <li>5. Fish with original gear sets</li> </ol>

**3. Gear marking options and considerations:**

<b>Gear Marking options</b>	<b>Potential costs</b>	<b>Potential benefits</b>
<ol style="list-style-type: none"> <li>1. Everywhere year round, no exemptions (not just New England)</li> <li>2. Three foot solid mark within two fathoms of buoy; addition to current 1 foot requirements for mark in top, middle and bottom sections</li> <li>3. Delineate country, support for state colors, consider adding additional area marks</li> <li>4. Allow sleeves/weak inserts as gear mark</li> </ol>	<ol style="list-style-type: none"> <li>1. Equipment</li> <li>2. Labor</li> </ol>	<p>Increase the probability of identification of recovered lines from whales to reduce uncertainty of location of entanglement</p>

**4. Area closure considerations as line reduction option (discussed but not recommended by Team)**

	<b>Potential considerations</b>	<b>Potential benefits</b>
Gear in (move to other areas)	<ol style="list-style-type: none"> <li>1. Fuel costs</li> <li>2. Less catch</li> </ol>	<ol style="list-style-type: none"> <li>3. Exploring new fishing ground</li> <li>4. Maintain income stream to support year round costs</li> </ol>
Gear out (move to dock)	<ol style="list-style-type: none"> <li>1. No catch</li> <li>2. Extra trips to move gears</li> <li>3. Storage costs</li> <li>4. Cash flow/payments costs</li> </ol>	<ol style="list-style-type: none"> <li>5. Reduce operating costs: Bait, fuel, etc.</li> <li>6. Labor savings</li> <li>7. Better catch in the future (more and higher quality)</li> </ol>
Ropeless as alternative to closure	<ol style="list-style-type: none"> <li>1. Device costs</li> <li>2. Gear loss costs due to device failure or gear conflicts</li> <li>3. Costs to mobile fisheries and enforcement for detection</li> <li>4. Safety</li> </ol>	<ol style="list-style-type: none"> <li>5. Alternative to area closure</li> <li>6. Fish with original gear sets</li> </ol>

## OPERATIONAL PRACTICES

We are considering information regarding trap/pot fishing operations from vessel trip reports, observe data, cost survey data and other sources and appreciate input from fishermen to supplement existing information such as:

<b>Vessel Characteristics</b>	<b>Fishing Practice</b>	<b>Gear marking or replacement</b>
Vessel length Fishing area Total Traps Gear configuration Total traps	Do you fish your total trap allocation? How many/what percentage of traps in water at a time? Do you pull gear? Where do you keep your gear when season is over? What's the storage cost?	How do you mark your gear? On land or at sea? What about line replacement or weak sleeves installation? How and where do you dispose of old fishing lines?