DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Parts 229 and 697

[Docket No. FR–210827–0171]

RIN 0648–BJ09

Taking of Marine Mammals Incidental to Commercial Fishing Operations; Atlantic Large Whale Take Reduction Plan Regulations; Atlantic Coastal Fisheries Cooperative Management Act Provisions; American Lobster Fishery

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Final rule.

SUMMARY: NMFS is amending the regulations implementing the Atlantic Large Whale Take Reduction Plan to reduce the incidental mortality and serious injury to North Atlantic right whales (*Eubalaena glacialis*), fin whales (*Balaenoptera physalus*), and humpback whales (*Megaptera novaeangliae*) in northeast commercial lobster and Jonah crab trap/pot fisheries to meet the goals of the Marine Mammal Protection Act and the Endangered Species Act. In addition, this action also makes a small revision to Federal regulations implemented under the Atlantic State Marine Fisheries Commission's Interstate Fishery Management Plan for American Lobster to increase the maximum length of a lobster trap trawl groundline. This action is necessary to reduce the risks to North Atlantic right whales and other large whales associated with the presence of fishing gear in waters used by these animals.

DATES: This rule is effective October 18, 2021. Compliance for 50 CFR 229.32(b)(2)(i), (b)(3), (c)(2)(i) through (iv), and (c)(8) and (9) is not required until May 1, 2022 (see **SUPPLEMENTARY INFORMATION** for more details).

ADDRESSES: Copies of the Final Environmental Impacts Statement (FEIS) including the Record of Decision, Regulatory Impact Review (RIR), and Regulatory Flexibility Analysis (RFA) as well as supporting documents are accessible via the internet on the Atlantic Large Whale Take Reduction Plan website at: *Fisheries.NOAA.gov/ALWTRP* or you may request copies by email from Marisa Trego: *Marisa.Trego@noaa.gov.*

Written comments regarding the burden-hour estimates or other aspects of the collection-of-information requirements contained in this final rule should be sent within 30 days of publication of this rule to *www.reginfo.gov/public/do/PRAMain* or by email to Ainsley Smith at *Ainsley.Smith@noaa.gov.*

FOR FURTHER INFORMATION CONTACT: Dr. Marisa Trego, Marine Mammal Take Reduction Team Coordinator, phone: (978) 282–8484 or email: *Marisa.Trego@noaa.gov*

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Background

This final rule implements modifications to the Atlantic Large Whale Take Reduction Plan (ALWTRP or Plan) as informed by the Atlantic Large Whale Take Reduction Team (ALWTRT or Team) and contained in the proposed rule, as modified based upon public input, including modifications deemed necessary by NMFS to meet the goals of the Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA). The final rule includes a one-month delay in effectiveness to allow fishermen time to move gear away from seasonal restricted areas. Compliance with gear configuration modifications described below including those changes that require fishermen to modify gear marking, change gear configurations to increase traps fished on trawls, or modify buoy lines to accommodate new weak rope and weak insertions is not required until May 1, 2022. Delayed compliance will provide fishermen with the time necessary to purchase materials and reconfigure their gear while conducting other regular gear maintenance activities.

The ALWTRP was originally developed pursuant to section 118 of the MMPA (16 U.S.C. 1387) to reduce mortality and serious injury of three stocks of large whales (fin, humpback, and North Atlantic right) incidental to Category I and II fisheries. Under the MMPA, a strategic stock of marine mammals is defined as a stock: (1) For which the level of direct human-caused mortality exceeds the Potential Biological Removal (PBR) level; (2) which, based on the best available scientific information, is declining and is likely to be listed as a threatened species under the ESA of 1973 within the foreseeable future; or (3) which is listed as a threatened or endangered species under the ESA or is designated as depleted under the MMPA (16 U.S.C. 1362(19)). When incidental mortality or serious injury of marine mammals from commercial fishing exceeds a stock's PBR level, the MMPA directs NMFS to convene a take reduction team made up of stakeholders including representatives of Federal agencies, each coastal state which has fisheries which interact with the species or stock, appropriate Regional Fishery Management Councils, interstate fisheries commissions, academic and scientific organizations, environmental groups, all commercial and recreational fisheries groups and gear types which incidentally take the species or stock, and if relevant, Alaska Native organizations or Indian tribal organizations. [1]

The ALWTRT was established in 1996 and has 60 members, including about 22 trap/pot and gillnet fishermen or fishery representatives. The background for the take reduction planning process and initial development of the Plan is provided in the preambles to the proposed (62 FR 16519, April 7, 1997), interim final (62 FR 39157, July 22, 1997), and final (64 FR 7529, February 16, 1999) rules implementing the initial plan. The Team met and recommended modifications to the Plan, implemented by NMFS through rulemaking, several times since 1997 in an ongoing effort to meet the MMPA take reduction goals. Despite modifications to the Plan (notably the use of sinking groundlines effective in 2009 (72 FR 57104) and efforts to reduce the number of vertical buoy lines and an expansion of the Massachusetts Restricted Area (MRA) effective in 2015 (79 FR 36586, 79 FR 73848, and 80 FR 30367)), mortalities and serious injuries of right whales in U.S. gear and first seen in U.S. waters at levels above PBR have continued.

NMFS informed the Team in late 2017 that it was necessary to reconvene to develop recommendations to reduce the impacts of U.S. commercial fisheries on

[1] There are no Alaska Native or Indian tribal organizations participating in fisheries managed under the Atlantic Large Whale Take Reduction Team.

large whales with a focus on reducing risk to the declining North Atlantic right whale population (Pace *et al.* 2017). Seventeen right whale mortalities were observed in 2017, including many determined to have been caused by vessel strikes and entanglements, leading to a declaration of a right whale Unusual Mortality Event. An annual average of five entanglement-related mortalities and serious injuries were documented from 2009 through 2018. Most could not be identified to a country of origin; only 0.2 per year could be attributed with certainty to U.S. fisheries, only 0.7 per year to Canadian fisheries, and an average of four per year could not be attributed to either country. For the purposes of creating a risk reduction target, NMFS assigned half of the unknown entanglement incidents to U.S. fisheries. Under this assumption, based on documented mortality and serious entanglement incidents, a 60-percent reduction would be needed to reduce right whale mortality and serious injury in U.S. commercial fisheries from an annual average PBR of 2.2 to below the current PBR of 0.8 per year. However, documented mortalities and serious injuries represent a minimum count and unobserved mortalities and serious injuries are not considered in the 60-percent target risk reduction. An upper bound target of 80 percent considered estimated mortalities generated by the Pace *et al.* 2017 population model that estimates unobserved mortality (Hayes *et al.* 2019). Currently, there is no way to definitively apportion unseen but estimated mortality across causes (fishery interaction vs. vessel strike) or country of origin (*United States* vs. *Canada*). For the purposes of developing a conservative target to meet the MMPA goals, in 2019 NMFS assumed that half of the estimated undocumented incidents occurred in U.S. waters and were caused primarily by incidental entanglements. However, given the assumptions and other sources of uncertainty in the 80-percent target, as well as the challenges achieving such a target, the Team focused on developing recommendations to achieve the lower 60-percent target.

Greater detail on right whale population estimates, the stock's decline, changes in distribution and reproductive rates, and entanglement-related mortalities and serious injuries documented in recent years can be found in the preamble to the proposed rule (85 FR 86878 December 31, 2020), and are briefly summarized in Chapter 2 of the FEIS.

During a Team meeting in April 2019, the Team recommended a framework of measures to modify lobster and Jonah crab trap/pot trawls within the Northeast Region Trap/Pot Management Area (Northeast Region) intended to reduce risk of mortality and serious injury to right whales incidentally entangled in buoy line in those fisheries by at least 60 percent. The Team's near-consensus recommendations included jurisdictionally specific combinations of line reduction measures to reduce right whale encounters with buoy lines and weak rope requirements to increase the chance of right whales parting the rope (self-releasing) to reduce mortalities and serious injuries when entanglements do occur. As described in more detail in the preamble to the proposed rule and in Chapter 3 of the FEIS, the Team's recommendations were not fully crafted as regulatory elements, and the proposed rule and draft environmental impact statement (DEIS) included modifications to the Team's recommendations based on public scoping and input from New England states related to implementation and operational feasibility. The proposed rule analyzed in the DEIS included less line reduction and weak rope than the Team recommended, and included additional measures to reduce right whale co-occurrence through new or expanded seasonal restricted areas. Although the Team did not make recommendations on the existing weak link requirement at the buoy line or on the proposed change to transition seasonal restricted areas to be closures to fishing with buoy lines rather than closures to fishing altogether, those measures were also proposed and analyzed. Finally, gear marking recommendations were discussed by the Team and received general support, but specific gear marking requirements were never taken to a vote for consensus, and gear marking requirements were not included in the Team's recommendations. Comments on the proposed rule and DEIS as well as new information regarding right whales were considered in the development of this final rule.

The public's vast input into this regulatory effort demonstrates stakeholder interest in conserving and recovering the North Atlantic right whale while also ensuring the development of operationally feasible and economical risk reduction measures. Benefits of large whale protection are difficult to describe in monetary value, but include non-consumer use benefits, non-use benefits, and potential costs savings from current disentanglements efforts. Economic research has demonstrated that society places economic value on environmental assets, whether or not those assets are ever directly exploited. The large number of commenters shows that society places real (and potentially measurable) economic value on simply knowing that large whale populations are flourishing in their natural environment (often referred to as ''existence value'') and will be preserved for the enjoyment of future generations. Collateral benefits to other species are also incurred through buoy line reductions that benefit other endangered species of large whales and endangered sea turtles, and weaker rope that would benefit other large whales.

Protection to large whales under the take reduction process, however, cannot be done without an economic impact. The annual cost of compliance for this rulemaking is $9.8–19.2 million, representing 1.5 to 3 percent of the 2019 landings value of the fisheries. However, given the input of fishermen and fishery managers, operationally feasible measures were developed that, relative to the other alternative analyzed, achieve the purposes of this rulemaking with nearly the same risk reduction but a much lesser economic impact on regulated entities than the analyzed non-preferred Alternative.

Changes to the Atlantic Large Whale Take Reduction Plan

This rule modifies the Plan in 50 CFR part 229, specifically the Northeast Region (Maine through Rhode Island) American lobster and Jonah crab trap/pot fishery. Described in more detail below, this rule: Increases the minimum number of traps per trawl based on area fished and distance fished from shore in the Northeast Region; modifies existing restricted areas from seasonal fishing closures to seasonal closures to fishing with persistent buoy lines; expands the geographic extent of the Massachusetts Restricted Area to include Massachusetts state waters north to the New Hampshire border; establishes two new restricted areas that are seasonally closed to fishing for lobster or Jonah crab with persistent buoy lines; requires modified buoy lines to incorporate rope engineered to break at no more than 1,700 pounds (lb) (771.1 kilograms (kg)) or weak insertion configurations that break at no more than 1,700 lb (771.1 kg); and requires additional marks on buoy lines to differentiate vertical buoy lines by principal port state, includes unique marks for Federal waters, and expands requirements into areas previously exempt from gear marking.

Changes to the Plan To Reduce the Number of Vertical Buoy Lines

The rule increases the minimum number of traps between buoy lines, known as trawling up, to reduce the number of buoy lines. The trawl configurations are established by area fished and distance fished from shore in the Northeast Region (waters offshore of Maine (ME), New Hampshire (NH), Massachusetts (MA), and Rhode Island (RI)) as detailed in Table 1. The rule describes the areas established in Maine regulations and known as Maine Lobster Management Zones (Zones) (ME DMR 13–188 Chapter 25.94). As a conservation equivalency measure for vessels fishing in Zones, this rule allows fishermen to choose to either trawl up to the minimum established traps/trawl or fish a trawl with half the minimum number of traps with a buoy line on only one end.

TABLE 1—LINE REDUCTION MEASURES

Area	Traps/trawl
ME 3 nm (5.56 km)–6 nm *, Zone A West	8 traps/trawl per two buoy lines or 4 traps/trawl per one buoy line.
ME 3 nm (5.56 km)–6 nm *, Zone B	5 traps/trawl per one buoy line.
ME 3 nm (5.56 km)–6 nm*, Zones C, D, E, F, G	10 traps/trawl per two buoy lines or 5 traps/trawl per one buoy line.
ME 3 nm (5.56 km)–12 nm (22.22 km), Zone A East	20 traps/trawl per two buoy lines or 10 traps/trawl per one buoy line.
ME 6*–12 nm, Zone A West	15 traps/trawl per two buoy lines or 8 traps/trawl per one buoy line.
ME 6*–12 nm, Zone B, D, E, F	10 traps/trawl per two buoy lines or 5 traps/trawl per one buoy line (status quo in D, E, & F).
ME 6*–12 nm, Zone C, G	20 traps/trawl per two buoy lines or 10 traps/trawl per one buoy line.
MA Lobster Management Area (LMA) 1, 6*–12 nm	15 traps/trawl.
LMA 1 & Outer Cape Cod (OCC) 3–12 nm (5.56–22.22 km)	15 traps/trawl.
LMA 1 over 12 nm (22.22 km)	25 traps/trawl.
LMA3, North of 50 fathom line on the south end of Georges Bank	45 traps/trawl, increase maximum trawl length from 1.5 nm (2.78 km) to 1.75 nm (3.24 km).
LMA3, South of 50 fathom line on the south end of Georges Bank	35 traps/trawl, increase maximum trawl length from 1.5 nm (2.78 km) to 1.75 nm (3.24 km).
LMA3, Georges Basin Restricted Area	50 traps/trawl, increase maximum trawl length from 1.5 nm (2.78 km) to 1.75 nm (3.24 km).

* ME 6 is a line offshore of Maine that is approximately 6 nm (11.1 km) from the coast.

Changes to the Plan Related to Seasonal Restricted Areas

The rule modifies closures in two restricted areas, the Massachusetts Restricted Area and the Great South Channel Restricted Area, by implementing closures to buoy lines rather than closures to the harvest of lobster or Jonah crab by the trap-pot fishery. The change would not include the Outer Cape Cod (OCC) Lobster Management Area (LMA), which remains closed to the lobster and Jonah crab trap/pot fishery under Massachusetts and Federal regulations (32 Mass. Reg 6.02 paragraph(7)(a) and 50 CFR 697.7(c)(1)(xxx)) implementing the Atlantic State Marine Fisheries Commission's (Commission) Interstate Fishery Management Plan for American Lobster. This modification allows fishermen with authorization to be exempt from surface marking requirements (buoys, radar reflectors, and high flyers) to fish these areas if they fish without the use of persistent buoy lines by remotely retrieving traps from the bottom using an acoustic signal, or through other means that do not require a persistent buoy line. This measure is intended to accelerate research and development of buoyless fishing methods, commonly termed ''ropeless'' fishing, so that in the future, commercial fishing using ropeless technology can be used in place of seasonal closures to allow trap/pot fishing while protecting right whales.

NMFS has invested a substantial amount of funding in developing ropeless fishing gear. We anticipate that these efforts to facilitate and support the industry's development of ropeless gear will continue, pending appropriations. Given the high cost of ropeless retrieval technology, for the foreseeable future, industry participants are likely to depend on loans of gear purchased by the Northeast Fisheries Science Center for ropeless research collaborations. By 2025, we anticipate this would allow up to 33 fishermen to fish with up to 10 trawls each in the Northeast Region, including the restricted areas. Because they would be fishing under Federal exempted fishing permits (EFP) or equivalent state authorization, conditions to minimize impacts on the natural and human environment will likely include some area restrictions, reporting and monitoring requirements, gear marking of any stored buoy line, and evidence of communication and collaboration with adjacent fixed and mobile gear fishermen to minimize gear conflicts.

This rule also extends the area of the Massachusetts Restricted Area north to the New Hampshire border for state waters, mirroring the Massachusetts 2021 modification of the state water closure (322 CMR 12.04(2)). This final rule does not adopt the Massachusetts seasonal extension through May 15, but instead retains the February through April seasonal closure.

This rule also establishes two new restricted areas that would be seasonally closed to fishing for lobster and Jonah crab with persistent buoy lines. The LMA 1 Restricted Area would be closed to buoy lines from October through January. The South Island Restricted Area would be closed to buoy lines from February through April. Figure 1 shows existing (dark gray) and new (light gray) seasonal restricted areas.

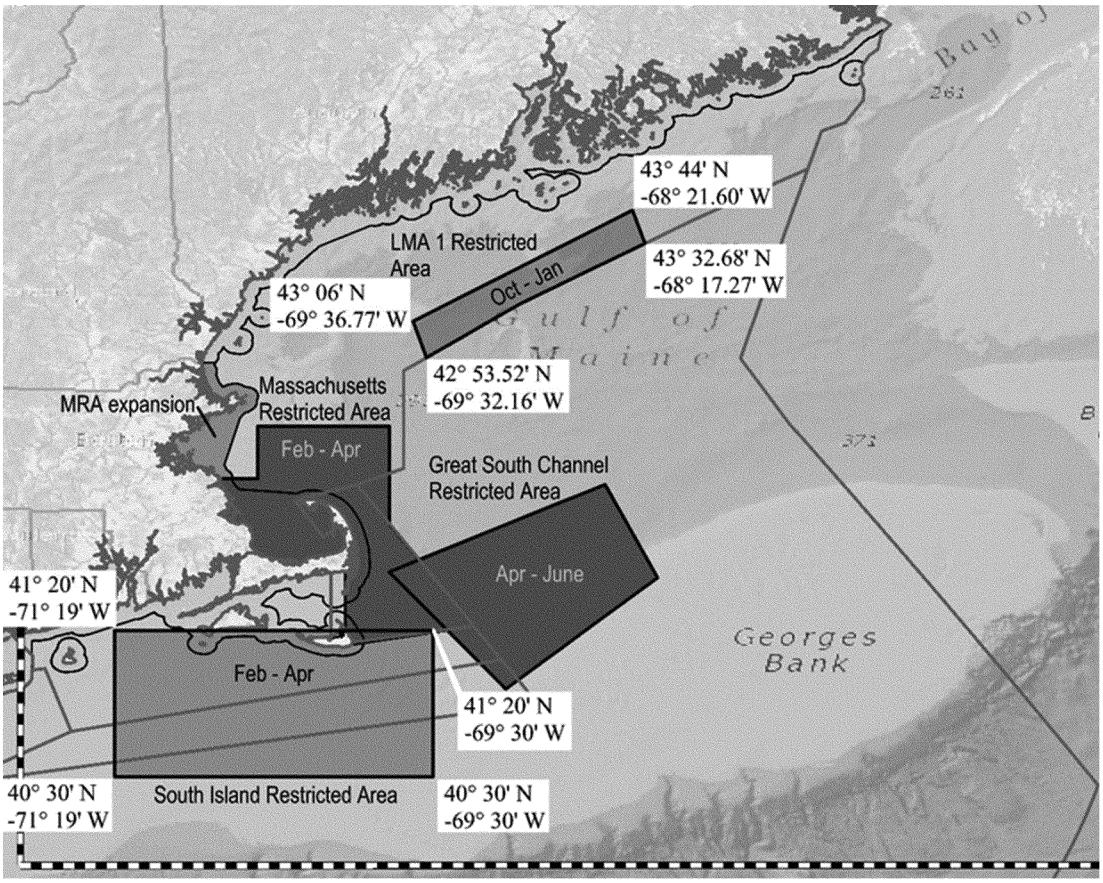

Figure 1. New (light gray) and existing (dark gray) seasonal restricted areas.

Changes to the Plan To Establish Weak Rope Requirements

This rule removes the requirement for a weak link at the buoy in the Northeast Region commercial lobster and Jonah crab trap/pot fisheries. As described in Table 2, all buoy lines in these fisheries will have weak rope or weak insertions well below the surface system. There is little information available to determine the efficacy of weak links at the buoy in reducing entanglement severity. Models suggest that when a whale encounters rope in the water column, the rope parts below the encounter (Knowlton *et al.* 2020). Retention of the buoy may have some benefits: Buoys have identifying marks that could improve our understanding of set locations of retrieved gear or may provide resistance and pull gear away from a whale, improving the chances of shedding gear.

Depending on the area fished and distance from shore, this rule requires all buoy lines in the fisheries to use engineered weak rope or weak inserts as described in Table 2. Under most operational conditions, weak rope or a weak insertion within the top half of a buoy line would not be subject to forces approaching or greater than 1,700 lb (771.1 kg) during hauls. Weak insertion placement locations were developed and proposed by Maine Department of Marine Resources (DMR), with much input from Maine fishermen who identified measures that could work with their existing gear, even with the longer trawl lengths being implemented. These measures reduce economic impacts and concerns that longer trawl lengths would result in strong and more dangerous buoy ropes.

TABLE 2—WEAK ROPE MEASURES

Area	Weak rope or weak insertions
Northeast Region	For all buoy lines incorporating weak line or weak insertions, remove weak link requirement at surface system.
ME state waters outside of exemption line	1 weak insertion 50 percent down the line.
MA State Waters	Fully weak line or weak inserts every 60 ft (18.3 m) in top 75 percent of line.
NH state waters	1 weak insertion 50 percent down the line.
RI wtate waters	Fully weak line or weak inserts every 60 ft (18.3 m) in top 75 percent of line.
ME Zone A west, B, C, D, E; Federal waters 3–12 nm (5.56–22.22 km).	2 weak insertions, at 25 percent and 50 percent down line.
ME Zone A east, F, and G; Federal waters 3–12 nm (5.56–22.22 km).	1 weak insertion 33 percent down the line.
MA and NH LMA 1 , OCC; Federal waters 3–12 nm (5.56–22.22 km).	2 weak insertions, at 25 percent and 50 percent down line.

TABLE 2—WEAK ROPE MEASURES—Continued

Area	Weak rope or weak insertions
LMA 1 & OCC over 12 nm (22.22 km)	1 weak insertion 33 percent down the line.
LMA 2	Fully weak line or weak inserts every 60 ft (18.3 m) in top 75 percent of line.
LMA 3	One buoy line weak to 75 percent.

A number of approved weak insertions are detailed in this regulation. To be approved, these weak inserts were demonstrated to break at 1,700 lb (771.1 kg) or less through 10 trials with a calibrated rope breaking machine, they are considered replicable, and are large enough and created with a contrasting color so they can be detected for enforcement purposes.

This rule also includes a provision for the Greater Atlantic Regional Administrator to approve in writing new weak insertions that are demonstrated to break at 1,700 lb (771.1 kg) or less and to include information about approved weak insertions on the ALWTRP website. The current regulations indicate that the NMFS Assistant Administrator would approve new weak insertions, as well as weak link and gear marking modifications. In actual practice, the NMFS Greater Atlantic Regional Administrator makes that determination, therefore these edits are made for accuracy. A definition for the Regional Administrator was added to the definitions list in 50 CFR part 229.

Changes to the Plan for Gear Marking Requirements

This rule modifies gear marking requirements by establishing a state-specific color for Maine (purple), New Hampshire (yellow), Massachusetts (red), and Rhode Island (silver/gray) vessels, except those fishing in LMA 3 which retains black as the primary gear mark color. For ropeless fishing operations working under EFPs or state authorizations, gear marking is likely to be recommended as a permit condition for any stored buoy line that is retrieved remotely, and a yellow/black striped mark is anticipated. All vessels in the Northeast Region are required to include a large 3-foot (0.9-meter (m)) solid mark within the surface system using paint or tape, and additional 1-foot (0.3-m) green marks (no marking convention defined; tape, paint, twine, etc.) within 6 inches (15.24 centimeters (cm)) of each area-specific gear mark to distinguish state from Federal waters or, in the case of LMA 3 vessels, to distinguish Northeast Region vessels from vessels fishing in the southern and western LMA 3 waters. For dual permitted vessels that fish in both state and Federal waters, the green gear mark can be created with a twine or other marking system that can be applied or removed during transit between state and Federal water fishing locations, or with paint, if applicable state regulations permit Federal marks to remain on buoy lines fished in state waters by dual permitted vessels. Gear marks are all required to be 1-foot long or greater when installed to distinguish them from Canadian marks, which currently are required to be at least 6 inches (15.24 cm) in length. The term ''state'' refers to the state associated with the vessel's principal port as declared on state and Federal permits. A principal port is considered the city and state where the majority of landings occur. Although more than 90 percent of lobster and Jonah crab Federal permit holders identify the same state as their principal port, mailing address, and home port (city and state where a vessel is moored), the port of landing was selected based on recommendations from some state managers, and is considered to be the area where fishing occurs.

TABLE 3—GEAR MARKING MODIFICATIONS

Area	Northeast Region Lobster and Jonah Crab Trap/Pot Gear Marking Requirement
State Waters	One 3-foot (0.9-m) state-specific colored mark (based on principal port state) in surface system within 2 fathoms (3.7 m) of the buoy. At least two 1-foot (0.3-m) marks in the state (principal port) color in the primary buoy line, one in the top half and one in the bottom half. Maine exempt waters will be regulated by Maine and not included in Federal regulations.
All Northeast Region Federal waters, except LMA 3.	A 3-foot (0.9-m) state-specific colored mark within two fathoms (3.7m) of the buoy. At least three 1-foot (0.3-m) marks in the state (principal port) color on the top, middle and bottom of the primary buoy line. Additional Northeast Region Federal water mark within 6 inches of each state-specific color: 1-foot (0.3-m) long green marks. For dual permitted vessels, state regulations will determine whether green Federal markings can remain on gear being fished in state waters.
LMA 3	A 3-foot (0.9-m) black mark within 2 fathoms (3.7 m) of the buoy. At least three 1-foot (0.3-m) black marks on the top, middle and bottom of the primary buoy line. Additional Northeast Region Federal water mark within 6 inches of each black mark: 1-foot (0.3-m) long green marks within 6 inches (15.24 cm).

Regulatory Language Changes (Definitions)

This rule adds three definitions to § 229.2. A definition is added for ''Lobster Management Area'' to reference the management areas that were developed for the American lobster fishery, citing the Atlantic Coastal Fisheries Cooperative Management Act regulations at 50 CFR 697.18. A definition for ''surface system'' is added for clarity related to the gear marking requirements. A definition for ''Regional Administrator'' is added to clarify approvals for any new weak insertions and provide information about approved weak insertions on the ALWTRP website.

A housekeeping edit is made to the Table in paragraph (c)(2(iv) completing a blank cell in the table by clarifying that there is no minimum number of traps per trawl in the Southern Nearshore Trap/Pot Waters Area.

Changes to Federal Regulations Implementing the American Lobster Management Plan

In addition to changes to 50 CFR part 229, this rule makes two minor revisions to the Federal regulations implemented under the Commission's Interstate Fishery Management Plan for American Lobster at 50 CFR 697.21. To accommodate conservation equivalencies in Maine Lobster Management Zones, this rule modifies the requirement that limits lobster trap trawls with a single buoy to trawls of no more than three traps to allow up to ten traps on a trawl attached and marked with a single buoy by Maine permitted vessels fishing in some Maine Zones within LMA1. To accommodate changes in the number of traps per trawl in LMA 3, this rule also increases the maximum length of a lobster trap trawl from 1.5 nm (2.78 km) to 1.75 nm (3.24 km), as measured from radar reflector to radar reflector.

Comments and Responses

We published the Proposed Rule to Amend the Atlantic Large Whale Take Reduction Plan to Reduce Risk of Serious Injury and Mortality to North Atlantic Right Whales Caused by Entanglement in Northeast Crab and Lobster Trap/Pot Fisheries and DEIS on December 31, 2020. A 60-day public comment period began on December 31, 2020, and ended on March 1, 2021 (85 FR 86878, December 31, 2020). We reviewed and considered all written and oral public submissions received during the public comment period. Comments on the proposed rule and DEIS were accepted as electronic submissions via *regulations.gov* on docket number NOAA–NMFS–2020–0031, as electronic submissions via email to a NMFS representative, and comments submitted orally at public information sessions and hearings.

In January 2021, we held four public information sessions and in February 2021, we held four public hearings, all virtual due to the global pandemic. The sessions were organized by region, though everyone was welcome to attend any session. Although the purpose of the January meetings was to provide information and answer questions, we accepted oral comments on the proposed rule and the DEIS at all eight meetings. A total of 122 speakers submitted comments orally at public information sessions or public hearings. Many of the speakers submitted more than one comment, and several submitted comments at more than one session. If an individual commented at more than one session, the individual was counted as a unique speaker on each day. We received 2 comments from academic/scientific individuals or organizations, 3 fishing industry associations, 27 non-governmental organizations, 27 members of the public, 59 fishermen, 2 state fishery resource managers, and 2 state/Federal legislators.

We received 171,213 written comments on the Proposed Rule and the DEIS through the comment portal. Of these, six comments from Non-Governmental Organizations were entered as counting for more than one comment: Pew Charitable Trusts: 47,699; Conservation Law Foundation: 1,192; Humane Society of the U.S: 15,922; Oceana: 18,440; Natural Resources Defense Council: 33,045; and Riverkeepers: 4. Five additional comments from Non-Governmental Organization were entered as one comment, but had thousands of signatures attached: International Fund for Animal Welfare: 31,912; Whale and Dolphin Conservation: 3,629; Environment America: 11,727; Center for Biological Diversity: 26,594; and Environmental Action: 11,135.

All of the above-referenced comments, which represent up to 201,269 people, were in favor of stronger regulations to protect North Atlantic right whales. They strongly favored the following measures: Longer and larger restricted areas, increased gear marking, transition to ropeless gear, and a risk reduction target of more than 60 percent. While many were in favor of weak rope or weak link requirements, many also voiced concerns that 1700 lb breaking strength has not been proven to reduce entanglements and could still severely entangle juveniles and calves. In addition, the vast majority urged NMFS to use the most updated population data in setting risk reduction targets and recommended the use of emergency measures to take action immediately.

After accounting for the bulk submissions, we received 53,585 comments uploaded through the *regulations.gov* portal, as well as 9 comments emailed directly to our office, 3 of which were added to *regulations.gov,* and are included in the 53,585 total above. After running a deduplication analysis, identifying additional campaign emails not detected by the deduplication analysis, and reviewing the entries for double submissions or submissions of supporting documentation separate from the original comment letter, we received approximately 1,076 unique comments that were not clearly part of a coordinated campaign. We received 28 comments from academic/scientific individuals or organizations, 2 Federal agencies, 1 Federal resource manager, 2 fishery management associations, 10 fishing industry associations, 2 manufacturers, 71 non-governmental organizations, 617 members of the public, 300 fishermen, 2 representatives from other industries, 32 state/Federal legislators, 7 state fishery resource managers, and 2 towns.

As many of the speakers who submitted comments orally also submitted comments through the *regulations.gov* portal, we considered each individual's comments, both oral and written, as one submission. This gives us a total of 1,129 unique submissions. Combining both written and oral submissions, and excluding duplicates, we received submissions from 28 academic/scientific individuals or organizations, 2 Federal agencies, 1 Federal resource manager, 2 fishery management associations, 10 fishing industry associations, 2 manufacturers, 76 non-governmental organizations, 628 members of the public, 336 fishermen, 2 representatives from other industries, 33 state/Federal legislators, 7 state fishery resource managers, and 2 towns.

Of the 336 unique commenters who identified themselves as fishermen, either directly or through context, 312 voiced opposition to all or part of the rule, 19 commented on particular provisions, but did not expressly support or oppose, and 5 supported the general idea of the rule, though had specific comments on some measures. Of the ten fishing industry groups, eight opposed all or part of the rule, one gave specific recommendations, but did expressly support or oppose, and one supported the general idea of the rule. The primary concerns raised by fishermen are that right whales are not in the areas that they fish and this rule will not protect right whales, but instead will place a large economic burden on fishermen with no benefit for the whales (>147); the economic impact of this rule will put them out of business and devastate coastal communities (>126); and that ropeless fishing is not yet and may never be feasible on a large scale (>105).

Of the 628 unique commenters who identified themselves as members of the public, either directly or through context, the vast majority (534) supported this rule, but expressed the opinion that the rule did not go far enough to protect right whales, with 84 suggesting NMFS use emergency authority to implement immediate protections for whales. Only 54 expressed opposition to the rule. A small number suggested that this rule

should be withdrawn because it does not provide adequate levels of protection for right whales, and NMFS should start over.

To summarize, overall, nearly 59 percent of unique commenters supported the Proposed Rule in whole or in part, with the majority expressing the opinion that the proposed regulations should be strengthened to provide more protection to right whales. A little over 34 percent of commenters opposed the rule in whole or in part, and about 4 percent suggested that the rule should be withdrawn because it does not provide adequate levels of protection for right whales, and NMFS should start over. About 4 percent of commenters did not express support or opposition, but suggested specific measures or strategies that NMFS should employ. In addition, about 14 percent of commenters (who had either supported the rule or suggested starting over) wanted NMFS to take emergency action.

We identified a total of 187 distinct substantive comments that were within the scope of the current rulemaking. The majority of these comments were submitted by multiple people, some of them by thousands of people. We also received several comments that were outside the scope of the current rulemaking, which are summarized below. The final rule and analyses in the FEIS are related to amendments to the Plan. The Plan and the take reduction process are restricted to the monitoring and management of incidental mortality and serious injury of marine mammals in U.S. commercial fisheries. Because these comments were out of the scope of the final rule and the FEIS, we did not provide responses in this document.

Below, we summarize the comments received in the topic category, and then provide specific comments and responses to each. Responses may refer to portions of the FEIS or final rule that have been modified as a result of comments (to obtain copies of the FEIS see **ADDRESSES**). We also made changes to the DEIS and the rule in response to the comments, where appropriate, including updates to data where the comments affect the impact analysis. Technical or editorial comments on the DEIS merely pointing out a mistake or missing information were addressed directly in the body of the FEIS and final rule.

Due to the large number of comments, they are organized according to the following specific topics: 1. Canada, 2. Economics, 3. Enforcement, 4. Gear Marking, 5. Legal Issues, 6. Line/Effort Reduction, 7. Management, 8. Research, 9. Restricted Areas, 10. Ropeless Gear, 11. Stressors, 12. Trawls, 13. Weak Links/Inserts/Rope, 14. Out of Scope.

1. Canada

Of the 1,129 unique comments, around 43 suggested that Canadian fishing gear is largely to blame for the recent right whale mortalities and entanglements, and that Canada needs to do more to reduce right whale mortalities and serious injuries. In addition to these commenters, dozens of others felt it was unfair that U.S. fishermen are being asked to make expensive and time-consuming changes to fishing gear and practices, and many questioned NMFS's apportionment of unknown entanglements in determining how much risk reduction was needed to reduce U.S. commercial fishery interactions to the PBR level established under the MMPA.

Comment 1.1: Canadian fishing gear is primarily responsible for recent right whale entanglements and mortalities, not U.S. fishing gear, and NMFS should not attribute 50 percent of the unknown gear to the United States.

Response: In recent years, gear has only been retrieved from about 54 percent of the detected right whale entanglement events. The majority of the entangling line retrieved is of unknown origin. During 2010–2019, out of 114 documented right whale entanglement incidents, gear was present on 62 whales. Of these, gear could be identified to a country in only 25 incidents (22 percent of all observed incidents): 18 were documented Canadian cases (14 Canadian snow crab, 4 unknown Canadian) and 7 were documented U.S. cases (1 gillnet, 1 lobster, 2 unknown trap, 3 unknown United States). The remaining 37 incidents involved gear of unknown origin (6 unknown gillnet/mesh, 1 unknown trap, 30 unknown line). Out of approximately 1.24 million buoy lines within the Northeast waters from Rhode Island to Maine, we estimate that 72 percent of buoy lines were unmarked under current ALWTRP gear marking guidelines although that percentage was reduced when Maine required gear marks on lobster trap buoy lines beginning in September 2020.

It is important to consider that most right whale mortalities are never seen. Entanglement incidents detected in the Gulf of St. Lawrence in recent years from May to early November may reflect some observer bias as the result of the extensive survey effort since late summer 2017 in an enclosed water body. During most of that season, the whereabouts of the two-thirds of the population that were not detected in the Gulf of St. Lawrence remains largely unknown. While acoustic detections indicate that right whales are present in U.S. waters year round, counts of individuals when spread over large areas remain outside of current capabilities but, given Gulf of St. Lawrence counts, the entire population could be present in U.S. waters from December through April and up to two thirds of them could be present year round. U.S. fisheries fish many more buoy lines than Canadian fisheries. That exposure to U.S. fisheries is balanced, however, by the many broad scale gear modifications in place, as well as seasonal restricted areas implemented under the Plan. However lacking an actual estimate of the proportion of the right whale population's exposure to U.S. or Canadian fisheries each year, in 2019 NMFS apportioned unknown mortality using a 50/50 split that recognized that more whales may be exposed over more months to fishing gear in U.S. waters (suggesting higher opportunity for entanglement) but broad based U.S. conservation measures would reduce mortality and serious injury. This apportionment also recognizes that mortality is occurring on both sides of the border, and that U.S. and Canadian measures are needed to reduce human-caused mortality to this transboundary species to recover the population. For more, see FEIS Section 2.1.5.

Comment 1.2: Canada's current regulations are insufficient, as they rely on dynamic management, which could fail due to lack of visual or acoustic detections, and the delay of weak rope implementation until the end of 2022.

Response: Under the MMPA, NMFS is responsible for U.S. fisheries and protected species within our borders and on the high seas. We work closely with our Canadian partners through bilateral meetings, coordinated disentanglement efforts, distribution and abundance data, health assessment, and gear analysis. Since July 2017, Canada has shown a commitment to reduce the impacts of their fisheries on the North Atlantic right whale population and they affirm that commitment in these bilateral efforts. The Canadian Department of Fisheries and Oceans (DFO) is responsible for fisheries management and protected species within their borders, and any concerns about their management measures should be directed to Canada's DFO.

Comment 1.3: Canada and the United States should collaborate in monitoring, data collection, and technology development to understand whale movements and sources of mortality,

and the United States should pressure Canada into doing more.

Response: NMFS coordinates with Canada on right whale conservation and recovery efforts through bilateral discussions and frequent information sharing with the DFO and Transport Canada at both the senior leadership and staff levels. NMFS senior leadership have had discussions with leadership from DFO and Transport Canada on conservation and management efforts for right whales since 2019, and plan to continue these discussions. We also coordinate and cooperate with DFO and Transport Canada through the Canada and United States Bilateral Working Group on North Atlantic Right Whales. This includes discussing lessons learned on fishing and vessel regulations, planning joint scientific activities (*e.g.,* aerial surveys), and coordinating collaboration across all right whale conservation efforts.

Comment 1.4: Maine's Department of Marine Resources should be allowed to participate in all future bilateral meetings with Canada.

Response: The U.S. Government routinely conducts bilateral consultations with foreign counterparts on issues of fisheries management. Several of these ongoing consultations are founded in formal collaborative agreements, while others occur through less formal arrangements. Discussions often include sensitive topics, such as respective positions being considered for multilateral organizations. Consequently, such consultations are restricted to Federal government personnel.

2. Economics

Approximately 143 commenters voiced concerns that this rule would cause them extreme economic hardship, with some stating that this rule would put them out of business. Many commenters expressed concern about the effects of this rule on the economic health of their communities, the supply chain, and on the state of Maine. Several questioned NMFS' economic analysis and suggested additional factors to consider in the economic analysis. Others were concerned that economics inappropriately and illegally dictated the alternatives considered in this rule; see the Legal Issues section for responses to those comments.

Comment 2.1: The new regulations will drive up costs, making fishermen unable to compete with Canada, resulting in the loss of an iconic U.S. fishery.

Response: Under the Fish and Fish Product Import Provisions of the MMPA published on August 15, 2016 (81 FR 54389), fish and fish products from fisheries identified by the NOAA Assistant Administrator in the List of Foreign Fisheries can only be imported into the United States if the harvesting nation has applied for and received a comparability finding from NMFS. Nations have until November 30, 2021, to apply for Comparability Findings for their fisheries. Beginning January 1, 2023, all nations seeking to continue exporting fish and fish products to the United States must have received Comparability Findings. Beginning in 2023, Canadian lobster and snow crab fisheries will face similar conservation costs for large whale protection if they wish to enter the U.S. seafood market. The new MMPA import regulations are intended to even the playing field.

Comment 2.2: NMFS underestimated the economic costs of the LMA1 seasonal restricted area because it did not take into account; (1) total affected vessels, (2) displacement of effort from those vessels, (3) changes in value to landings.

Response: Based on the comments received, we identified new and updated data sources and have revised our estimation methods. In the DEIS, we relied on the Industrial Economics (IEc) model vessel data and calculated catch per trap using NMFS Vessel Trip Report data. Because only about 10 percent of Maine vessels provide trip reports annually, these data may not have reflected the catch rates and landings achieved by vessels fishing in the seasonal restricted areas. Due to public comments, we updated the analysis using Maine Department of Marine Resources (Maine DMR) harvester and dealer report data to re-estimate the total landings outside 12 nm. Please see FEIS Section 6.3.4.1 for details.

Further, not all landings would be lost when the restricted area is in place. Fishermen are expected to relocate their gear to fishing grounds within the same or directly adjacent Maine lobster management zones. As fishermen commented, vessels already fishing in those adjacent fishing grounds would then be crowded, reducing their catch rates. We have included the crowding effects to other vessels in the surrounding areas in our economic calculations in the FEIS. We also assume a 5–10 percent reduction rate based on the natural lobster mortality rate. Nearly all the lobsters not caught during the restricted area closure are assumed to be caught at other locations or later in the year. Looking at the industry as a whole, the lost value to the entire fleet would be those lobsters dying from natural causes.

In Table 6.12, as one commenter noted, we had incorrect information on the lobster price unit leading to an error in the landings values. The prices displayed in the table are in dollars per pound but should have been calculated as dollars per kilogram. However, the costs in the last two columns are still correct, as they were calculated separately using pounds.

Comment 2.3: NMFS should include the potential benefit of reducing the need for disentanglement efforts in the economic effects analysis. We ask NMFS to evaluate the annual average costs of retaining each disentanglement team, including its equipment, insurance requirements, and staff.

Response: We agree that we should consider this in our economic analysis, and have revised our analysis to include an estimate of disentanglement costs as well as the potential benefit of reducing the need for disentanglement efforts. See the qualitative and quantitative discussion in FEIS Section 9.6.4.

Comment 2.4: The DEIS does not analyze the economic benefits of ropeless fishing.

Response: This rule does not require fishermen to fish with ''ropeless'' fishing gear. However, in response to commenters, we added some analysis of the economic costs and benefits of ropeless fishing to FEIS Section 6.3.3, and some details of anticipated impacts can be found in response to comments below in response to Comment 9.4.

Comment 2.5: The Proposed Rule fails to account for the full benefits of weakening vertical lines to reduce mortality and serious injury from entanglements. The full benefits should be taken into account in the development of a final rule.

Response: All cases where full weak rope was not implemented were analyzed according to the proportional risk reduction of the number of inserts compared to the equivalent of full weak rope (an insert every 40 feet). Please see FEIS Section 3.3.4 and 5.3.1.3 for a description of how the use of weak rope was analyzed and the anticipated impacts on large whales. FEIS Sections 5.3.2.3 and 5.3.4.3 discuss the expected impacts on other protected species and protected habitat.

Comment 2.6: NMFS should consider the costs already incurred under previous take reduction measures, and the effectiveness of those measures, and should standardize a review of its economic analysis based on the actual impact of previous rules.

Response: In the FEIS, we revised our analysis to provide as much information as possible about the costs already incurred under previous take reduction

measures. However, these economic impacts are not directly related to current rulemaking, so would not be included in the final costs. Under Section 610 of the Regulatory Flexibility Act, NMFS is required to review any significant rule to evaluate the continued need for regulation. Our review procedures include a summary of the expected economic impacts contained in the final rule, as well as a summary of any changes in technology or economic conditions that may have occurred since. To allow for sufficient time for economic adjustments to occur and for data to become available, we review rules every seven years. The most recent ALWTRP rule was published in 2015, and will be coming up for review shortly.

Comment 2.7: Did economic analysis take into account fishermen from outside Maine, New Hampshire, Massachusetts, and Rhode Island, as there are some fishermen from New York and Connecticut that may be affected?

Response: This rulemaking applies to lobster and Jonah crab fisheries in the Northeast Region Trap/Pot Management Area (Northeast Region). Please see FEIS Chapter 1 for the regulated waters map. In the DEIS, we only included fishermen from Maine to Rhode Island. In the FEIS, we identified a few New York fishermen that fished within the regulated area and we revised our analysis to include the economic impacts to those lobster and Jonah crab fishermen. No Connecticut fishermen were identified in the regulated waters. Due to data confidentiality requirements, those New York fishermen were combined with Rhode Island LMA 2 vessels and LMA 3 vessels in the analysis.

Comment 2.8: This rule will drive small fishermen out, and the fleet will become consolidated into larger corporate operations, destroying iconic tourist-drawing fishing communities and resulting in cultural loss.

Response: A number of the measures including trawling up and weak insertion requirements were initially developed by Maine DMR after extensive outreach with Maine fishermen. Fishermen indicated that the trawling up and weak insertion measures could be done by reconfiguring existing trawls and buoy lines, reducing impacts of wholesale replacement of gear. Based on recommendations from the public, fishermen and state agencies, we have modified the alternatives in the FEIS to include conservation equivalencies in Southern New England, LMA 3, and Maine Lobster Management Zones out to 12 miles. As requested by Rhode Island fishermen and supported by the state, we analyzed the use of weak rope instead of trawling up measures for LMA 2. Fishermen indicated they could not support longer trawls unless they invested in a new vessel or vessel modifications. An analysis of risk reduction determined that this provided equal or better risk reduction. The final rule applies weak rope measures identical to the Massachusetts state measures for LMA 2 and does not require further trawling up. Similar concerns expressed by LMA 3 fishermen resulted in the implementation of trawling up restricted areas with varying trawling up requirements. Conservation equivalency measures provided by Maine fishermen and Maine DMR allow fishermen to choose between different trawl lengths with one or two buoy lines, or use more weak inserts instead of trawling up based on fishing practices in the Maine lobster management zones.

Comment 2.9: Does the economic analysis of gear conversion take into account the replacement savings of current gear that is nearing the end of its lifespan?

Response: We have revised our analysis to include this in the FEIS. Since it is difficult to estimate the life stages for all gears in the regulated areas, we applied new gear prices for current gear requirements in the DEIS.

When vessels modify their gear configurations by trawling-up to add more traps between trawls, they can save some gear costs from the reduction in surface system like buoy lines, buoys and radar reflectors. These savings are calculated using new gear prices.

For weak rope measures, in Alternative 2 (Preferred) and the final rule, weak rope can be inserted into current ropes, so no large-scale replacement of buoy lines is needed. Estimated costs of inserts assume the rope or sleeve is new. In Alternative 3, which requires fully engineered weak rope to replace the current rope, the compliance costs would be the difference between fully weak rope and regular rope. We also use new gear prices for both ropes.

Comment 2.10: Fishermen should be compensated for the time it takes to mark all the gear.

Response: Currently there is no mechanism by which NMFS is able to compensate fishermen for gear marking costs. A program of that nature would require Congressional appropriations. Similar programs have been made available to fishermen in the past. Note that effective gear marking could help fishermen and the government avoid additional regulatory burden in the future by better identifying areas where interactions are likely and unlikely to occur.

Comment 2.11: The costs of lost gear from new weak rope requirements should have been considered in the evaluation of economic effects.

Response: We discussed this issue qualitatively in FEIS Section 6.2.6.1.

Comment 2.12: The economic impacts of gear marking, including the time already spent marking gear, should have been included in the economic impact analysis because the rules were implemented in direct anticipation of the Proposed Rule.

Response: Other than the gear marking costs for fishermen fishing within Maine Exempt waters, who will be regulated by the state of Maine, we revised the analysis to include estimates of the gear marking costs (both material and labor costs). This revision is in response to public comments correctly noting that Maine implemented gear marking measures in anticipation of this final rule. However, improved information regarding the location of large whale entanglement related mortalities and serious injuries may allow future tailoring and reduced economic impacts of regulations.

Comment 2.13: The evaluation of the economic effects of this rule should have included all parts of the supply chain, such as lobster processors, dealers, gear suppliers, trap builders, rope and line manufacturers, and restaurateurs.

Response: We quantitatively evaluated the economic impact of the final rule as it applies to the lobster and Jonah crab trap/pot fisheries in the Northeast. We recognize that these changes could impact the broader supply chain, as well as local communities and economies in ways that are not easily quantifiable. In FEIS Section 6.7.2.2, we include a qualitative evaluation of the socioeconomic impacts to fishing communities.

Comment 2.14: Fishermen should get economic assistance/subsidies to cover the costs of gear changes and lost revenue.

Response: Given the vast amount of industry input into the development of weak insertions, which would not require fishermen to replace buoy lines, and trawling up measures, many gear modifications implemented in the final rule were created to control costs. However, the economic analysis in Chapter 6 indicates the first-year cost of this rulemaking is $9.8 to $19.2 million, which is 3 percent of the landings value of the lobster fishery in 2019. Some of those costs are likely to be passed on to

the consumer but economic impacts to fishermen are anticipated.

In December 2019, $1.6 million in Federal funds were reprogrammed to support recovery actions for the North Atlantic right whale in the lobster/Jonah crab trap/pot fishery. The funds were made available to fishermen through our partnership with the Commission. The funds were obligated to the Commission and have been distributed to Maine, New Hampshire, Massachusetts, and Rhode Island to assist the lobster/Jonah crab trap/pot fishery in adapting to and comply with the measures in this final rule and to help defray costs to support affected fishermen broadly. Maine and Massachusetts have used funds to improve reporting (Maine) and to support a gear liaison to collaborate with fishermen to develop and test weak insertions. New Hampshire and Rhode Island plan to use funds to purchase rope for fishermen once the rule becomes effective. At this time additional funds have not been appropriated by Congress or further reprogrammed to reimburse fishermen.

Comment 2.15: NMFS should reevaluate the use of Automatic Identification Systems (AIS) to track vessel locations and movements, and not dismiss it from consideration as an alternative based on expense.

Response: NMFS supports the collection of high-resolution spatial data in the lobster fishery and intends to continue to work with the Commission, through their technical working group, to develop data collection objectives and requirements, while balancing the financial burden to industry. Included in ongoing discussions are specifications needed to determine whether options less expensive than AIS systems can be used effectively. A basic vessel tracking system costs between $500 and $1,300, while a more advanced AIS system costs between $750 and $3,500. AIS devices also have ongoing operating costs. In relation to the overall size and value of the lobster fishery (approximately $600 million), for example, the cost of vessel tracking technology is small in light of the benefits it provides in the form of real-time fishery monitoring as well as safety to prevent vessel collisions. We anticipate continued investigation into the appropriate vessel tracking specifications to meet the needs for lobster and right whale management and, if appropriate, would pursue rulemaking within the next few years to require vessel tracking for federally permitted vessels fishing for lobster.

Many lobster vessels are smaller than 65 feet and therefore not currently required by law to carry AIS. While the individual cost of AIS systems are low compared to the value of the fishery, outfitting the entire fleet with AIS would not be a cost effective approach to monitoring, due to the trap-setting nature of the fishery. Other vessel tracking methods are being piloted by the Commission that are more responsive to tracking the movements of lobster boats, such as setting and hauling back. NMFS will work with them to regulate this monitoring approach.

Comment 2.16: In doing its economic analysis, NMFS did not consider the ecological value of right whales, and the role they play in a healthy environment, including their role in carbon sequestration.

Response: In Section 9.6.1 of the DEIS, we discussed the value of large whale protection in non-consumptive use benefits and non-use benefits. We provided the total expenditure of the whale watching industry as a proxy for non-consumption use value, and we provided a list of research results on the willingness to pay for whale protection programs from society as a proxy for the non-use value. In FEIS Section 9.6, we revised our analysis to include recent studies on the ecological and economic value of large whales.

Comment 2.17: The DEIS does not include a reference to the Meyers and Moore 2020 paper that suggests a reduction in effort brought about by time/area closures and removals of traps and lines from the water may reduce costs.

Response: When we prepared the DEIS in spring 2020, this Meyers and Moore (2020) paper had not yet been published. We have updated the FEIS and this paper has been cited. See FEIS Section 6.5.1.

Comment 2.18: The economic and social impacts analysis fails to consider the impact that the ongoing COVID–19 pandemic has had on demand for the fisheries. In the first six months of 2020, U.S. exports of lobster declined by 44.6 percent (FAO Globefish 2021) and that significant uncertainty regarding the duration and extent of these impacts remains.

Response: The full consequences of COVID–19 on the U.S. lobster and Jonah crab trap/pot fisheries cannot yet be determined. In the first half of 2020, the U.S. fishing and seafood sector experienced broad declines due to COVID–19 protective measures instituted in March 2020 across the United States. While lobster fishing effort and demand for lobster were low in the first half of 2020, landings increased and prices rose as the year went on. Maine, the state that has the most active and valuable lobster fishery, reported preliminary data that indicated that the value of lobster landings in 2020 exceeded $400 million for only the seventh time (Maine DMR constituent email, March 24, 2021). The catch volume was reportedly 5 percent lower than 2019 landings but the vessel price was $0.44 higher per pound than the average price over the previous ten years. While the uncertainty caused by COVID–19 on communities that rely on lobster and other fisheries cannot be understated, in the Gulf of Maine, where lobster stocks are healthy, the fishery appears to be somewhat resilient.

Comment 2.19: The costs of compliance fail to account for economic losses associated with shorter equipment durability and lifespan caused by the proposed weak ropes, insertions, and trawling up.

Response: See the description of gear loss costs in Chapter 6, section 6.2.6.1. Gear loss is not included in the final costs estimation because the effect of trawling up on gear loss is unclear and not thought to be substantial. We also currently have no evidence that weak rope or weak inserts would cause significantly more gear loss. In a study of weak inserts conducted by New England Aquarium for the Massachusetts Office of Energy and Environmental Affairs, Knowlton *et al.* (2018) documented sleeves designed with reduced breaking strength breaking in only 11.8 percent of hauls relative to 8.5 percent of control buoy lines, which they did not find statistically significant. Some fishermen who have used the South Shore Sleeves for several years have incurred no significant increase in extra gear loss. NMFS will continue to test and evaluate the use of weak inserts to ensure they are not likely to contribute to an increase in ghost gear. See Section 5.3.1.3.2 for a description of the anticipated indirect effects of trawl length and weak rope measures, including the likelihood of gear loss. Also note that lobster landings dropped in 2020 due to COVID–19 but the 2020 lobster average price was the second highest in the past decade, about $4.4/lb.

Comment 2.20: The DEIS exclusively uses the Federal dealer data to analyze the commercial impact to the industry, not the full value of the supply chain, and so underestimates the true cost.

Response: For our analysis of the impacts on commercial fisheries, the dealer data provides the most accurate information. Although we have some information of the total economic value of the supply chain in Maine, it is difficult to estimate the impacts of the proposed rule on it. The biggest impact

on the supply chain from the rulemaking would be the short-term landing reduction. There could be some negative impacts in the near term, but also could benefit the industry in the long run. We discussed this issue briefly in FEIS Section 6.7.2.2.

Comment 2.20: NMFS's economic analysis fails to properly consider that reduced effort does not equate to reduced catch.

Response: For reduced effort in restricted areas, under the scenario where fishing is suspended, we assumed fishermen would lose all their revenue during the closed fishing period, which was the more conservative estimate. We recognize the costs could be overestimated in section 6.3.1.2 ''Caveats''. Under the scenario where effort is relocated, we assumed a 5 percent to 10 percent landing reduction in the first year, and we also applied a decreasing rate of landing reduction for the impacts of restricted areas.

3. Enforcement

About 14 commenters voiced concerns that this rule would be difficult to enforce, and 11 commenters including the United States Coast Guard, suggested that NMFS needs to develop a comprehensive enforcement plan for the areas affected by this rule. As noted in the FEIS, lobster trap/pot gear makes up the vast majority of buoy lines fished in the Northeast Region, making compliance with regulations paramount to the rule's ultimate success or failure in reducing right whale mortalities and serious injuries.

Comment 3.1: NMFS should develop a comprehensive monitoring and enforcement plan to ensure compliance. One commenter stated that there is currently no enforcement in Massachusetts, New Hampshire, and LMA 3, and another stressed the importance of including states in the development of any enforcement plan.

Response: State partnerships serve a significant role in effective regional enforcement activities. The Office of Law Enforcement-Northeast Division (OLE–NED) has Joint Enforcement Agreements (JEA) in place with ten New England and Mid-Atlantic coastal states (Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, and Virginia). The following states perform inspections of lobster gear in Lobster Management Areas: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, and New Jersey. The following states perform inspections of black-sea-bass gear in Lobster Management Areas: Delaware, Maryland, and Virginia. OLE–NED has developed and implemented a pilot program using remotely operated vehicles (ROVs) to inspect offshore fishing gear, including in LMA 3. The pilot project will inform future offshore enforcement activities for ALWTRP compliance monitoring efforts Additional information on this pilot program is provided in response to Comment 3.2. OLE–NED has identified a number of elements to review, in partnership with the states and the United States Coast Guard, to help develop a more comprehensive enforcement strategy for the ALWTRP regulatory requirements. Appendix 3.5 of the FEIS provides a high-level overview of compliance monitoring plans and associated enforcement assets.

Comment 3.2: Several commenters noted that enforcement in the offshore areas, particularly LMA 3, is sparse, and question whether Marine Patrol will be able to do gear inspections on longer trawls.

Response: Traditional methods of hauling gear in offshore waters for compliance monitoring poses both safety and sustainability challenges. To meet these challenges, OLE–NED developed and implemented a pilot program using ROVs to inspect offshore fishing gear. OLE–NED has conducted offshore subsurface ROV surveys to check for sinking groundlines, gear markings, and weak links in previously uninspected areas. Gear tags were also inspected when possible. After initial trials, OLE has determined that ROV-based inspection of gear in the water is a safer and more efficient way to enforce offshore lobster gear requirements, rather than physically pulling the gear. The pilot project was carried out in FY2020 and FY2021, and will inform future offshore enforcement activities for ALWTRP compliance monitoring efforts.

Comment 3.3: How will NMFS be able to enforce the different requirements in different areas, as fishermen move from area to area?

Response: NOAA's Office of Law Enforcement partners with state agencies and the United States Coast Guard to enforce all applicable lobster regulations nearshore and offshore. Fishermen are required to adhere to the regulations in the areas they fish. In Maine Lobster Management Zones, where conservation equivalencies established by zone and distance from shore present the greatest enforcement challenge, the Maine Marine Patrol assured us that they use outreach, education, and enforcement to establish and maximize compliance, are very familiar with Maine's lobster management zones and boundaries, and that ''. . . enforcement of most restrictive rules relative to lobster zones does not present any significant challenge . . .'' (email from Erin Summers, April 20, 2021). Offshore enforcement poses challenges that enforcement partners have been evaluating in recent years. While OLE does not disclose specific law enforcement techniques, as discussed above, OLE has started deploying ROVs to inspect offshore gear. OLE welcomes and encourages the public to report violations to their hotline.

4. Gear Marking

A total of 75 commenters supported gear marking, indicating that gear marking is the best way to determine where and in which fisheries entanglements occur, and potentially absolving other areas and fisheries of blame. Gear marking was universally supported by conservationists and fishermen. Several Maine fishermen commented that they had already completed their required gear marking, and many are expecting the results to show that Maine's lobster fishery does not entangle whales.

Comment 4.1 NMFS should give Maine's lobster fishery a three-year evaluation period to make sure that Maine's rope (now with purple marks) is not causing entanglements before adding any other requirements.

Response: The results of Pace *et al.* 2021 show that in the years 1990–2009, roughly eight right whales per year died, many unseen. Since 2010, on average 21 right whales per year have died. Recent observations indicate that the increase in mortality since 2010 is in part due to a significant amount of mortality in Canadian waters and/or from Canadian fishing gear. However, the sources of the unseen mortality (roughly eight whales per year) that has existed for decades remains uncertain and the effects of the Plan's measures cannot be evaluated (Pace et al. 2017) and likely has not reduced mortality and serious injury below one per year as required to meet MMPA goals.

If current trends continue, even accounting for a mean of 11 births per year over the last 10 years, we could expect to lose another 30 whales over the next 3 years, or 10 whales per year. Pace *et al.* (2021) estimates that approximately 368 right whales were alive at the end of 2019. At the current rate of decline, we would expect the 2020 population to be 358. If we wait 3 more years to implement risk reduction regulations, the population could be as low as 328. We are required by the

MMPA to take action now. See FEIS Chapter 1 for more information on the need for immediate action.

We expect gear marking and acoustic and aerial surveys to help us further identify the areas of most risk to right whales. Until we have additional information, we must regulate based on the best available science: Maine has the highest concentration of all vertical line gear in U.S. waters, and right whales are still using Maine waters.

Comment 4.2: There should be an exemption for hand-hauled lobster traps in less than 100 feet of water, because when traps are pulled by hand, the vertical lines are not cleared of organisms on the rope as they would be when a pot hauler is used.

Response: It is unclear what exemption is being requested by the commenter, as no exemption fitting this general description was included in the final rule. The request may be for an exemption from gear marking requirements because marks may be obscured by fouling. While this may reduce the ability to see marks from a vessel, gear marks would be detectable from line retrieved from a whale.

Comment 4.3: We received comments from some who support the idea of individual ID tags that would allow NMFS to identify the fisherman whose gear entangles a whale, as well as from others who oppose individual ID tags.

Response: Current regulations require buoys to be marked with information that can be traced back to individual fishermen. Buoy and individual line tagging technologies exist, but this method of marking comes at some cost and the benefits are unclear. Gear is not always recovered and often buoys or traps are not present on the entangled whale. Line marking technology, such as identification tape (*i.e.,* marker tape) that is woven into line, is expensive and is difficult to enforce without severing the buoy rope. Radio frequency identification and passive integrated transponder tags are also expensive, require standardized tag readers to adequately enforce, and in field trials have not held up well in commercial fishing conditions. As the technology improves and the costs are reduced, NMFS will continue to monitor the possibility of line identification tape. We are not requiring individual markings in this rulemaking.

Comment 4.4: One commenter proposed dividing Massachusetts and Maine into smaller subdivisions with distinct markers to allow NMFS to develop more accurate and targeted marine policy, and another suggested weak rope should be marked or colored to identify it as weak rope.

Response: Current regulations include some small zones of multiple colored marks but given the rarity of gear retrieval, the value of small area marking requirements is not yet proven. Gear marking is one of the most expensive elements within the proposed regulations and increasing complexity adds expense without proven benefits or any risk reduction. Regarding requiring weak rope to be identifiable with a color or marking scheme, NMFS does not regulate rope manufacturers. However, we are asking them to create intentionally engineered weak rope with a tracer or a strand of a contrasting color. Weak insertion approval has included a requirement of a contrasting color to allow both enforcement and disentanglement teams to recognize the weak insertion.

Comment 4.5: NMFS should not require any additional gear marking beyond what is already in place.

Response: Currently, the majority of gear recovered has no identifiable marks and until Maine established gear marking requirements in Maine exempted waters, over half of all U.S. buoy lines were unmarked. In order for the ALWTRT to make better recommendations, including those that could allow more targeted gear modifications and closures, the Team needs a better understanding of the types and locations of rope that entangle whales. The more robust gear marking scheme included in the final rule, including some markings largely supported by the ALWTRT and states, should increase our ability to identify the gear, and subsequently, identify more targeted and more effective measures to reduce entanglements.

Comment 4.6: Gear marking should be required for all fisheries in the right whale migratory path.

Response: The ALWTRP covers commercial fisheries within the right whale migratory path from Florida to Maine. While, historically, the majority of gear recovered from right whale entanglements has been unknown, state regulations and the final rule expand the gear marking schemes substantially for the lobster/Jonah crab fishery, which contributes the vast majority of vertical lines in these waters. The new gear marking requirements should increase the frequency with which we encounter gear marks on recovered rope from entanglements and enable visual identification of state of origin from aerial and vessel-based platforms. The ALWTRT has begun meeting to develop recommendations related to reducing the risks posed by other U.S. fisheries in right whales range. In recent years, Canada has also implemented gear marking requirements for Canadian lobster and snow crab fisheries.

Comment 4.7: NMFS should require gear markings every 17 fathoms, so that gear markings will be at the same intervals regardless of the total length of the rope.

Response: The large number of different fisheries operating at various depths managed under the ALWTRP makes it difficult to implement a single gear marking structure. For those fisheries occurring in deep offshore waters, this rule more than doubles current gear marking requirements but may not result in marks as frequent as every 17 fathoms (31 m). However given the large number of buoy lines in shallower waters, one marking every 17 fathoms (31 m) would be a reduction in gear marking compared to what we have in the final rule.

Comment 4.8: Several commenters suggested that sinking groundlines should be marked to distinguish them from vertical lines, while others supported not requiring any gear marking on sinking groundlines.

Response: Groundline marking has not been extensively discussed by the ALWTRT in recent years. Under current ALWTRP and in this final rule, no gear marking will be required for sinking ground lines.

Comment 4.9: Why are the gear marks required to be 3 feet long (0.91 m), and would that be useful in murky water?

Response: Gear marking and fishery identification relies mainly on recovering gear from entangled whales, making the water clarity a negligible component of gear identification. However, the proposed larger 3-foot (0.91 m) mark within 2 fathoms (3.65 m) of the surface system should help identify gear from vessel and aerial platforms, as the surface system will keep the line in relatively clear water. The mark could also provide useful information for disentanglement teams, and may allow gear identification in cases where whales are photographed, but not seen again.

Comment 4.10: Any final rule should include requirements for all buoy lines to be marked the full length of the vertical line, or at the very least, markings every 40 feet, and in such a way that the location of where gear was set can be known even in cases when a buoy is not seen or retrieved.

Response: The final rule increases the number of marks with additional distinction between Federal and state waters, offering better spatial resolution than those in the Proposed Rule. The marks will also be longer in length to increase the likelihood that a mark will be spotted without a buoy. However, it

was determined that marking every 40 feet would be costly without a commensurate benefit given that since 2010 gear has only been retrieved from about 40 percent of the observed right whale entanglements.

Comment 4.11: Time consuming gear marking regulations should be implemented during the off season, as otherwise gear making will reduce the time available for fishing.

Response: We recognize this issue, and this rule will include a delayed implementation date to allow time during slow seasons as practicable for gear configuration and gear marking changes.

Comment 4.12: Can we alert whales to the presence of ropes with visual or acoustic cues?

Response: Research conducted by Kraus, Fasick, Werner and McFarron (2014), and Kraus and Hagbloom (2016), suggested that red and orange lines may be visually detectable by North Atlantic right whales at greater distances than other colors although it is unclear to what depths color can be detected or whether detection results in avoidance. For more information on gear marking measures included in this rule, please see Table 3.3. Unlike toothed whales that use echolocation to sense their surroundings, baleen whales like right whales are not detecting fishing gear acoustically and acoustic cues are unlikely to result in gear avoidance in the same way that pingers have been successful at reducing entanglements of harbor porpoises, for example.

5. Legal Issues

Approximately 28 commenters believe that the Proposed Rule violated the requirements of the MMPA, the ESA, the National Environmental Policy Act (NEPA), and/or the Administrative Procedure Act (APA). Most of these concerns were raised by NGOs, including but not limited to: Whale and Dolphin Conservation, Oceana, Center for Biological Diversity, Conservation Law Foundation, Defenders of Wildlife, Humane Society of the United States, Natural Resources Defense Council, PEER, Clearwater Marine Aquarium, Georgia Aquarium, Southern Environmental Law Center, as well as the Maine Lobstering Union, and many Federal and state legislators.

Comment 5.1: NMFS refusal to evaluate some strategies, including but not limited to certain trap reductions, weak line enhancements, static area closures, and gear marking strategies, was ''arbitrary and capricious'' under the APA.

Response: The development of the Proposed Rule was the result of an extensive public process involving challenging negotiations within the ALWTRT and ample opportunity for public input as prescribed by the MMPA, NEPA, and the APA.

Many options were considered, deliberated, and evaluated by the ALWTRT, the public, and NMFS, and some were modified or eliminated from further consideration as the process unfolded. Where the measures considered in the final rule would also affect state fisheries, the input of state fisheries agencies was important to ensure that conservation measures were feasible and safe in the various locations in which they would apply. State scoping and outreach helped inform the rulemaking efforts, and helped identify the measures that would be given extensive consideration in the NEPA process.

The final rule and FEIS reflect this extensive involvement by the numerous stakeholders and considered a reasonable range of alternatives.

Comment 5.2: Proposed rule and DEIS violated Executive Order (E.O.) 12898 by not reviewing issues of environmental justice, particularly for Maine's Washington County.

Response: E.O. 12898 requires agencies to consider whether their actions result in disproportionately adverse human health and environmental impacts on minority or low income populations. The DEIS addressed E.O. 12898 by examining the various counties affected by the ALWTRP rulemaking, and concluding that minority and low impact communities will not be disproportionately affected.

While Washington County has higher than state average low income and minority populations, Washington County is not disproportionately affected by adverse health and environmental impacts from the rulemaking when compared to other counties. Where the impacts of the ALWTRP rulemaking extend over a large area across multiple states, the county level is an appropriate level at which to assess whether the rulemaking would result in disproportionate impacts.

The commenter's concerns appear to be economic in nature, as opposed to adverse human health and environmental impacts, which are the focus of E.O. 12898. See FEIS Section 10.12 for a complete analysis of this rule as it pertains to E.O. 12898.

Comment 5.3: NMFS' authorization of lobster and Jonah crab trap/pot fisheries violates the ESA by allowing entanglements.

Response: NMFS has satisfied its obligations under the ESA by reinitiating consultation on the operation of Federal fisheries under eight Federal fishery management plans and two interstate fishery management plans, which was completed on May 27, 2021, and consulting on the amendment of the ALWTRP itself, which was completed on May 25, 2021.

The ALWTRP does not authorize fisheries. NMFS disagrees with the commenter's claims that the ALWTRP ''allows'' entanglements. The ALWTRP does not state that entanglements are allowed, nor does it prevent fishermen from taking actions to avoid or prevent entanglements beyond what is required by this rule.

Comment 5.4: Allocating the full PBR to the trap/pot fishery violates the MMPA.

Response: MMPA Section 118 directs NMFS to develop take reduction plans to reduce the incidental mortality and serious injury of marine mammals incidentally taken by commercial fishing operations to levels less than a stock's PBR level. Section 118 does not address other sources of human-caused mortality (*e.g.,* vessel strikes) and those other causes are not considered in the goals of the take reduction plan. The short-term goal of a take reduction plan is to reduce incidental mortality and serious injury of each marine mammal stock to below the stock's PBR in the commercial fisheries addressed by the plan, with a longer term goal of reducing incidental mortality and serious injury to 10 percent of a stock's PBR taking into account economics, available technology, and existing fishery management plans. NMFS has already reconvened the ALWTRT to develop recommendations for gillnet and other trap/pot fisheries.

Additionally, the FEIS analyzes other sources of impacts on right whales. Although beyond the scope of this rule, NMFS has identified evaluation of current measures to protect right whales from vessel strikes, as well as research into factors affecting health and abundance, collaboration with Canada on range-wide recovery efforts, and consideration of emerging threats as 2021 to 2025 priority actions in the right whale 5-year Species in the Spotlight action plan.

Comment 5.5: The Proposed Rule violates the MMPA by considering economics as a factor when choosing the preferred alternative.

Response: The commenter argues that NMFS is prohibited from considering the economic impacts of measures to be implemented in a Take Reduction Plan unless such measures are part of the

MMPA's long-term goal of reducing mortality and serious injury to insignificant levels approaching a zero mortality and injury rate (often referred to as ZMRG). However, the distinction drawn by the commenter does not accurately reflect the statute. Under the MMPA, to reach the long-term goal requires the TRP to take into account the economics of the fishery, the availability of existing technology, and existing state or regional fishery management plans. The portion of the MMPA discussing the short-term goal of reducing mortality and serious injury to below a stock's PBR does not use this language. However, that does not mean that economics, technological limitations, and state or regional fishery management plans cannot be part of the consideration as to which measures should be chosen to achieve the short-term goal. Here, NMFS developed a 60–80 percent risk reduction target based on the latest PBR calculations and estimates of mortality and serious injury, and the ALWTRT developed recommendations based on this target. In choosing between measures that will accomplish the goal of reducing mortality and serious injury below PBR, the MMPA does not prohibit the consideration of economics, and here the agency's choice of measures to include in the final rule balances various factors, but does not do so at the expense of the risk reduction target to reach the short-term goal.

Comment 5.6: The Proposed Rule violates MMPA by not meeting ZMRG within 5 years.

Response: Under section 118 of the MMPA, NMFS is required to meet both the short and long-term take reduction plan goals of reducing mortality and serious injury incidental to commercial fishing operations. The short-term goal is to reduce mortality and serious injury to below a stock's PBR, while the long-term goal is to reduce mortality and serious injury to insignificant levels approaching a zero mortality and serious injury rate (*i.e.,* ZMRG, defined as 10 percent of PBR in 50 CFR 229.2), taking into account the economics of the fishery, availability of existing technology, and existing state or regional fishery management plans.

Due to the continued entanglements of large whales in commercial fishing gear, NMFS is required to take additional action to further reduce mortality and serious injury incidental to commercial fisheries covered by the ALWTRP. NMFS will continue to discuss future plan modifications with the ALWTRT and has already reconvened the Team in light of these goals.

Comment 5.7: The Proposed Rule violates MMPA by not reducing PBR in six months.

Response: The MMPA created a framework for developing and issuing take reduction plans, monitoring the plans regularly, meeting with take reduction teams regularly, and amending plans if necessary to meet the goals of the MMPA. NMFS' actions have been consistent with the process laid out by the MMPA.

The first ALWTRP was issued in 1997, and NMFS has modified the ALWTRP numerous times since, with input from the ALWTRT to further the MMPA goals of reducing mortality and serious injury of large whales incidental to commercial fisheries.

As we state in the preamble to the final rule, for the purposes of creating a risk reduction target, NMFS assigned half of the right whale entanglement incidents of unknown origin to U.S. fisheries. Under this assumption, a 60 percent reduction in mortality or serious injury would be needed to reduce right whale mortality and serious injury in U.S. commercial fisheries, from an observed annual average of 2.2 to a PBR of less than one whale per year. See Chapter 2 of the FEIS for our revised analysis of PBR.

Comment 5.8: These additions to the ALWTRP may not prevent the continued decline of right whales.

Response: NMFS tasked the ALWTRT with developing measures to reduce risk of entanglement to meet the MMPA's goals that fisheries mortality and serious injury should be below PBR. It is not within the agency's discretion to disregard PBR, and the current rulemaking is the agency's attempt to reduce the risk of mortality and serious injury from the Northeast lobster and Jonah crab trap/pot fisheries to comply with the MMPA. That such measures in and of themselves may not result in recovery of the right whale population does not mean that NMFS can disregard the statutory direction of the MMPA.

Comment 5.9: State measures should be included in the final rule.

Response: NMFS agrees that the MMPA authority applies in both state and Federal waters. Many state measures are included in the final rule, including Massachusetts weak insertion requirements and extension of the MRA north to the New Hampshire border. Because dynamic management is difficult to accomplish under Federal procedural requirements and such measures were not part of the proposed rule, the Massachusetts extension of the state water closure into May was not included. Other Massachusetts measures, such as a maximum state water line diameter, were not included because they were not analyzed or part of the proposed rule.

Comment 5.10: NMFS ''Purpose and Need'' statement is too narrow.

Response: The Purpose and Need chapter of the FEIS states that the measures need to achieve a risk reduction of at least 60 percent, rather than an exact risk reduction target, and therefore, it was not meant to constrain the risk reduction to a specific number. Rather, this is the minimum target needed. Both of the action alternatives considered in the DEIS met the Purpose and Need. The Alternatives have been modified in the FEIS.

The Alternatives were selected because, using the Decision Support Tool, these suites of measures, which include ongoing and anticipated fishery management measures, measures that will be regulated by Maine and Massachusetts, and the benefits of the MRA, are estimated to achieve or exceed a 60 percent risk reduction necessary to reduce impacts to right whales to below the PBR level of 0.8 mortalities or serious injuries per year based on observed incidents. Thus, mortality and serious injury of right whales in U.S. fishing gear must be reduced by 60 percent (documented) to 80 percent (estimated) to achieve the MMPA goal of reducing fishery-related incidental mortality and serious injury to below the right whale PBR.

For more information on the Decision Support Tool and the input data, assumptions, and uncertainty please see FEIS Appendix 3.1.

In terms of the ESA, the final rule has been identified as a first anticipated step in the adaptive management approach within the conservation framework in the Section 7 Consultation on the authorization and permitting of a number of Federal fisheries, including lobster and Jonah crab. Additionally, a consultation on the ALWTRP which included the implementation of final rule determined that the gear regulations implemented by the Plan for U.S. fixed gear fisheries including those measures in the final rule will have wholly beneficial effects to ESA-listed species or their critical habitat and therefore the Plan is not likely to adversely affect ESA-listed species or designated critical habitat.

Comment 5.11: NMFS cannot rely on CEQ's recent amendments to NEPA.

Response: Because the Notice of Intent to prepare an Environmental Impact Statement (84 FR 37822, August 2, 2019) was published prior to September 14, 2020, this action was prepared under the NEPA regulations first implemented in 1978. Text has

been added to the Purpose and Need section (FEIS Section 2.2) to reflect this. As written, the FEIS addresses direct and indirect impacts in Chapter 5 (Biological Impacts), Chapter 6 (Economic and Social Impacts), and Chapter 7 (Summary of Biological, Economic, and Social Impacts). Cumulative Effects are addressed in Chapter 8, which also summarizes the direct and indirect impacts of the action as well.

Comment 5.12: NMFS failure to consider a ''no commercial fishing'' alternative is in violation of NEPA.

Response: Not allowing any commercial fishing is not a reasonable alternative under NMFS' regulatory responsibilities, namely the Magnuson-Stevens Act, and does not meet the Purpose and Need of the action nor the goals of the Plan. Per the agency's mission, NMFS is responsible for the stewardship of the nation's ocean resources and their habitat. We provide vital services for the nation: Productive and sustainable fisheries, safe sources of seafood, the recovery and conservation of protected species, and healthy ecosystems—all backed by sound science and an ecosystem-based approach to management.

Comment 5.13: NMFS did not evaluate a reasonable range of alternatives or all reasonable measures in violation of NEPA.

Response: The development of the Proposed Rule was the result of an extensive public process involving the ALWTRT as prescribed by the MMPA, NEPA, and the APA. Many alternatives were considered, deliberated, and evaluated by NMFS, the ALWTRT stakeholders, and the public, but some were eliminated from further consideration as the process unfolded. For example, while the non-preferred alternative considered a reduction and cap on buoy lines, achieving that reduction specifically through a large reduction in the number of traps allocated to fishermen or through a reduction in the number of permits issued was not analyzed despite studies that suggest that trap reductions may not substantially or over the long term reduce lobster landings and would reduce operational costs to fishermen (*e.g.,* Myers and Moore 2020; Myers *et al.,* 2007). These measures were not included in large part due to failed efforts to establish effort reduction measures with the primary fishery management body responsible for lobster fishery management, the Commission, demonstrating the complexity of developing these measures in a fishery with varied state reporting requirements. There was also strong opposition from the regulated community, most notably when Maine DMR attempted to develop this option through Maine Zone Council meetings. Strong industry opposition to measures that would require consideration of fishing histories and landings data would further extend the rule development and implementation timeline and compromise compliance.

Additionally, trap reduction would not in itself necessarily reduce buoy line numbers. Increasing the minimum number of traps per trawl would still be required in conjunction with trap reductions, otherwise fishermen could use trawls with fewer traps resulting in no decrease in vertical buoy lines. While some commenters raised concerns about additional weight associated with more traps per trawl and stronger buoy lines, weak insertions required in all buoy lines regulated under this rule would provide for breakable buoy lines. This example demonstrates the complex interrelationship of many of the measures analyzed and adopted or rejected, although given the large volume of comments not all measures provided in scoping and comments on the proposed rule were analyzed.

Where the measures considered here would also affect state fisheries, the input of state fisheries agencies was important to ensure that conservation measures were feasible and safe in the various locations in which they would apply. As such, state scoping and outreach helped inform the rulemaking, and measures given extensive consideration in the NEPA process. The FEIS reflects this extensive involvement by the numerous stakeholders and contains a reasonable range of alternatives for the agency and the public's consideration. The Alternatives were selected because, using the Decision Support Tool, they achieve or exceed a 60 percent risk reduction necessary to reduce impacts to right whales to below the PBR level of 0.8 serious injury or mortality per year.

Comment 5.14: NMFS rejected trap reductions in violation of NEPA.

Response: While agencies shall include reasonable alternatives not within the jurisdiction of the lead agency, these trap reduction strategies were not considered reasonable under the Purpose and Need due to multiple factors. They are complex, time-intensive, and carry a large administrative burden. For example, implementing a line or trap cap would require pinpointing accurate data sources, identifying qualifying criteria, outlining an allocation method, and engaging the industry, on top of managing current measures. Given the need for rapid rulemaking and conservation measures, these trap reduction strategies are not currently cost effective, nor could they be implemented in a timely manner. For more information on trap reduction strategies undertaken by the Commission, see also response to Comment 5.14, above, and comment 6.4, below.

Comment 5.15: DEIS did not analyze all risks in concluding the rule will reduce mortality and serious injury below PBR in violation of NEPA and APA.

Response: In accordance with NEPA, as part of its cumulative impacts analysis, the DEIS described impacts to right whales and other large whales from various anthropogenic sources, including vessel strikes, aquaculture, and offshore energy development. However, attribution of sources of mortality in the PBR framework is not a legal requirement of NEPA, but of the MMPA. Section 118 of the MMPA directs that NMFS develop take reduction plans to reduce the mortality and serious injury of marine mammals incidental to commercial fishing operations to levels less than PBR for the marine mammal stock. While the DEIS did address other sources of impacts on right whales, the MMPA does not mandate that take reduction plans must reduce incidental mortality and serious injury from fisheries to levels that would accommodate mortality and serious injury from other anthropogenic sources within PBR. In other words, NMFS does not apportion PBR; PBR is a reference point that serves as the short-term goal for a take reduction plans and also alerts NMFS to take management actions needed to reduce all sources of human-caused mortality so that we can meet the overarching MMPA goal of recovering marine mammals to their optimum sustainable populations.

Comment 5.16: NMFS did not consider dynamic area management as required under NEPA and APA.

Response: The commenter is correct that in the past the take reduction plan included dynamic closure measures. Such measures were found to be problematic with the fixed gear lobster fishery, and so were not considered in this final rule. When a closure is made gear cannot be removed instantaneously, and factors such as weather and sea conditions affect the timing of gear removal. Dynamic closures must allow for safety concerns, which make them less effective from a conservation perspective, as such delays can result in gear remaining after whales

are sighted, and may also result in a situation where, by the time fishermen are able to remove their gear, the whales may have already left the area subject to the closure. Further, while Canada began using dynamic closures in 2018 as part of its right whale conservation effort, in 2019 there were twelve Canadian right whale mortalities despite these measures. See Comment 9.2 under Restricted Areas and Borggaard *et al.* (2017) for further discussion of dynamic management.

Comment 5.17: Proposed rule violates MMPA and ESA because regulations are not effective and immediate.

Response: The MMPA take reduction rulemaking process is subject to procedural requirements arising from the APA, MMPA, NEPA, and ESA that make ''immediate'' protections in the form of a Take Reduction Plan amendment a legally difficult proposition. While there are circumstances in which MMPA emergency rulemaking authority may be exercised, as described in more detail in response to comment 7.5, NMFS has not concluded that this would be appropriate here, and even if this authority were used it would not allow for ''immediate'' protections, as there are other non-MMPA procedural steps that must occur. NMFS has undertaken the current rulemaking process using the best available scientific information while engaging with various stakeholders in the take reduction team process to develop effective conservation measures to reduce entanglements of right whales in Northeast lobster and Jonah crab trap/pot fisheries.

Comment 5.18: NMFS did not use the best scientific information available in violation of NEPA, MMPA, and ESA.

Response: The rulemaking process unfortunately cannot react instantaneously as new information comes to light. The MMPA take reduction planning process requires the involvement of numerous stakeholders in the TRT in the development of conservation measures, followed by the required NEPA and APA processes. At all points, however, NMFS uses the best available scientific information to inform its decisions, and when the TRT was reconvened, NMFS developed a 60–80 percent risk reduction target based on the latest PBR calculations and estimates of mortality and serious injury.

As NMFS prepared to publish the DEIS and Proposed Rule, new information regarding North Atlantic right whale population came in the form of preliminary estimates from the NMFS Northeast Fisheries Science Center in the fall of 2020. These estimates have since undergone additional review, and are being incorporated into the North Atlantic right whale stock assessment that includes a new PBR calculation, a process that includes public notice and comment. This new information is included in the FEIS.

Comment 5.19: The proposed regulation is not only unconstitutional, but a direct attack on the citizens and sovereignty of the state of Maine. You should refrain from implementing this regulation.

Response: NMFS is acting in accordance with direction from Congress under the MMPA and other applicable laws. See FEIS Chapter 10.

6. Line/Effort Reduction

At least 34 commenters were in favor of effort reduction through trap limits, line caps, and buybacks, as a way to reduce the number of vertical lines in the water, thus reducing risk to right whales, while a few were against any effort reduction measures. Maine DMR noted that the administrative burden of a line cap system is also something that has deterred them from pursuing this management measure. Several commenters pointed out that, due to latent effort, NMFS' assumptions on effort may be artificially high, though Maine's DMR stated that the latent effort calculations were consistent with their view. Some commenters suggested that fewer fishermen are entering the fishery, leading to a natural reduction in effort, and therefore line reduction was already taking place, which would contribute to the risk reduction goals of the final rule.

Comment 6.1: NMFS should review the amount of latent effort in the fishery, and ensure that latent effort is properly accounted for in determining the risk reduction value of any measures.

Response: Since the collapse of the Southern New England (SNE) lobster stock, the Commission has taken action to attempt to address latency in LMA 2 and 3. The Commission's Lobster Management Board initiated Addendum XVIII to scale the SNE fishery to the diminished size of the SNE lobster resource with a consolidation program aimed at addressing latent effort (unfished allocation) and reductions in traps fished. Addendum XVIII included an approximate 50 percent trap reduction in LMA 2 implemented over 6 years and an approximate 25 percent trap reduction in LMA 3 implemented over 5 years. These trap reductions concluded in fishing years 2020 and 2021.

Given that the Gulf of Maine/Georges Bank (GOM/GB) lobster stock (overlapping with LMA 1, 3, and the Outer Cape) is at a near time series high for abundance, we can assume that the amount of latency is comparatively lower than that found in SNE. As discussed in Chapter 5 of the FEIS, positive market and lobster stock conditions for the GOM/GB stock incentivize fishermen to increase fishing effort and may encourage inactive fishermen to reenter the fishery. For that reason, it is likely that fishermen in the Gulf of Maine have been fishing at a high capacity in recent years. Maine, which accounts for the majority of permits issued in the Gulf of Maine, submitted data on latency rates of state permits (Appendix 3.2 of the DEIS), indicating a stable number of latent permits over the last 10 years (2008–2018). Of its approximately 6,000 permits issued, approximately 1,500 permits have no reported purchased landings and are considered latent. While other jurisdictions have not completed similar analyses, latency rates are likely similar.

Given the actions to reduce latency in LMA 2 and 3, the relatively low but stable amount of latency in LMA 1, and the current fishery incentives given high abundance in the Gulf of Maine, fishery data included in the Decision Support Tool are considered accurate and representative of existing fishery conditions, including existing rates of latency. See FEIS Chapter 5 for more details.

Comment 6.2: A range of views were expressed on the Non-preferred Alternative of capping buoy lines. One comment stated that NMFS should choose its Non-preferred Alternative of capping buoy lines at 50 percent of the average monthly lines fished in Federal waters in 2017. Another expressed opposition to it, citing that Massachusetts is the only state where end lines are accurately counted or regulated, and it would be time and labor-intensive to develop such a system across the other states without funding or capacity to do so.

Response: Regulating buoy lines was analyzed in the DEIS and the FEIS as an element within the Non-preferred Alternative 3, taking an alternate approach to achieving risk reduction across the proposed areas that would reduce line numbers while allowing fishermen to respond to the reduction according to their preferences and individual operational capacity. Alternative 3 would cap the total number of lines available for trap/pot fishing in Federal waters to 50 percent of the average baseline number of lines (2017) outside of state waters. Because this was not a Preferred Alternative, the exact regulatory mechanism for

implementing a line cap was not identified. It was assumed, however, that NMFS would work with the Commission and New England states to qualify the number of buoy lines based on an April 29, 2019, control date (84 FR 43785, August 22, 2019) using vessel trip reports or, for Maine, other data sources to distribute allocations of line tags to fishermen.

NMFS did not select this Non-preferred Alternative because development of a buoy line control program would be time- and labor-intensive and come at a substantial cost to the industry. The Commission process, including soliciting public feedback, requires, at a minimum, approximately six months to develop an adaptive management action. Larger, more controversial actions can take 8 to 18 months. One commenter is likely correct that, given the lack of mandatory vessel trip reports in the Federal lobster fishery in the baseline year of 2017, the Commission would have had to rely on state data as the best scientific information available to develop a qualification program through an addendum.

Given the variable data regarding individual fishermen's lobster fishing histories due to inconsistent state and Federal reporting requirements, this would be a large and controversial action. Even once approved by the Commission, additional time would be required for NMFS to undertake a Federal rulemaking and associated analysis. The FEIS estimates that a 50 percent reduction of buoy lines in Federal waters would alone achieve an average 45 percent risk reduction in Federal waters with economic impacts ranging from $3.9 to 13.4 million. The combined set of measures included in the preferred alternative was projected to achieve a 69 percent risk reduction at a cost of $9.8 to $19.2 million in the first year of implementation. Given implementation challenges, the economic impacts of this preferred alternative and the fact that the preferred alternative achieves the stated risk reduction target, buoy line reductions will not be implemented in the final rule.

Comment 6.3: States should cap and reduce the number of licenses, and reduce risk to right whales.

Response: Through the Commission's Interstate Fishery Management Plan for American Lobster, states and NMFS have made substantial efforts at capping the number of permits and traps authorized in the lobster fishery, which serves as a primary effort control. The concept of controlling lobster fishing effort by limiting access to historical participants began in 1994 when NMFS generally limited access into the Federal lobster fishery to those who could document participation in the fishery before 1991 (59 FR 31938, June 21, 1994). Years later, in August 1999, the Commission passed Addendum 1 to Amendment 3 to the Interstate Plan, which limited access to Lobster Conservation Management Areas 3, 4, and 5 to only those who could document fishing history in those areas. Subsequent Commission addenda similarly attempt to control effort by limiting access to other Areas:

TABLE 4—ACTIONS UNDER INTERSTATE FISHERY MANAGEMENT PLAN FOR AMERICAN LOBSTER

Lobster conservation management area	Commission action [2]	Corresponding Federal action
EEZ	March 1994—Amendment 5 [3]	June 21, 1994 (59 FR 31938)
LMA 1	November 2009—Addendum XV	June 12, 2012 (77 FR 32420)
LMA 2	December 2003—Addendum IV [4]	
	February 2005—Addendum VI	April 7, 2014 (79 FR 19015)
	November 2005—Addendum VII	May 10, 2005 (70 FR 24495)
LMA 3	August 1999—Addendum 1	March 2003 (68 FR 14902)
LMA 4	August 1999—Addendum 1	March 2003 (68 FR 14902)
LMA 5	August 1999—Addendum 1	March 2003 (68 FR 14902)
LMA 6	1995—by State action	Not Applicable in Federal Waters
Outer Cape Cod	February 2002—Addendum III	April 7, 2014 (79 FR 19015)
	May 2008—Addendum XIII	
All Areas	February 2009—Addendum XII	April 7, 2014 (79 FR 19015)

The Commission has used a similar step-by-step approach in all of the areas. First, participants are qualified based upon their ability to document a history of fishing within the area. Second, those who qualify are allocated some number of traps within a given management area, based upon their ability to document the level of past fishing effort in the area.[5] These addenda have largely required that states implement similar limited access programs (with the exception of LMA 1, where recommendations were for the Federal fishery only).

The Commission Interstate Plan has not included reductions to the number of permits issued in the lobster fishery. However, since area qualifications were implemented, the number of Federal permits issued in each area has either held steady or declined. The 2020 American Lobster Benchmark Stock Assessment summarized state and Federal permits issued in the lobster fishery, with approximately 1,400 fewer permits being issued in 2018 than in 2010. Further, the Commission has approved numerous actions that reduce area-specific maximum trap caps or reduce the number of traps allocated to each permit. Most recently, Addendum XVIII required an approximate 50 percent trap reduction in LMA 2 implemented over six years and an approximate 25 percent trap reduction in LMA 3 implemented over 5 years. These trap reductions concluded in fishing years 2020 and 2021.

The Commission recommended a reduction in the LMA 3 maximum trap cap as well as ownership caps in LMA 2 and 3 that are expected to further reduce the number of traps authorized in the areas, as part of Addenda XXI and

[2] All Addenda can be found at *www.asmfc.org,* under Interstate Fisheries Management, American Lobster.

[3] New England Fishery Management Council document. This action occurred prior to the 1999 transfer of Federal lobster management to the Commission under the Atlantic Coastal Act.

[4] Addendum IV was rescinded in Addendum VI and then revised and approved in Addenda VII and XII.

[5] Through various addenda to the ISFMP for American lobster, history-based effort control plans based on fishery performance have been enacted by NMFS (LCMAs 1, 3, 4, and 5) and states (MA in Outer Cape Cod; NY and CT for LCMA 6; and MA, RI, CT, & NY for LCMA 2).

XXII. NMFS is in rulemaking to consider the implementation of these measures. This FEIS anticipates this future rulemaking and has given credit to the risk reductions associated with Addenda XVIII, XXI, and XXII.

Comment 6.4: NMFS should remove half the traps from the water, which would reduce the risk to right whales while still allowing fishermen to make a living.

Response: Since 1994 under the Commission's Interstate Fishery Management Plan for American Lobster, states and NMFS have made substantial efforts at capping the number of permits and traps authorized in the lobster fishery. Participation caps serve as a primary effort control. Reducing trap caps by half could result in less effort and, when paired with traps/trawl requirements, could reduce the number of lines being fished, with an associated reduction in risk to large whales. A number of fisheries and managers that have participated in the public meetings of the Commission and the Take Reduction Team have expressed confidence that, on productive fishing grounds, lobster trap reductions could occur without negative economic consequences. A number of studies have demonstrated this, see for examples Myers and Moore (2020), Myers *et al.* (2007), and Acheson (2013).

However, for a reduction in the number of actively fished buoy lines to be fairly distributed based on vessel fishing histories or other commonly used metrics, detailed knowledge of the amount of fishing effort by sector or individual vessel is required. Allocation decisions in effort control management of a capped resource (lines or traps) are also usually informed by iterative public fishery management processes and include appeal options that are administratively burdensome. Because the lobster fishery has variable reporting requirements across states, and because only about 10 percent of Maine fishermen have been required to report in any year and Federal reporting has been variable, data to easily determine effective trap and line cap measures is not available. This was demonstrated by the failed attempt of the Commission to identify an effort limit addendum, as described in FEIS Section 3.1.1.2.

7. Management

We received thousands of comments on management issues, ranging from the use of adaptive management strategies to including southeastern states in future rulemaking to evaluating the effectiveness of the final rule. Thousands of commenters, primarily through campaigns organized by NGOs, but also at least 149 unique commenters, advocated NMFS taking emergency action to institute immediate vertical line reductions or closed areas, and of them, many suggested shutting down all fishing activities that involve vertical lines. Several also recommended shutting down all commercial fishing. We also received thousands of comments, again primarily through campaigns organized by NGOs, but also from 83 unique commenters, about our risk reduction calculations being based on outdated population estimates.

Comment 7.1: NMFS should use adaptive management to assess and recalibrate the measures every few years to reach goals of reduced entanglements in fishing gear.

Response: During the ESA Section 7 consultation on the operation of eight fisheries managed under Federal fishery management plans and two fisheries managed under interstate fisheries management plans, NMFS identified the need for additional measures to meet the mandates of the ESA, and developed a Conservation Framework to outline the agency's commitment to implement measures necessary for the recovery of right whales. In addition to the current rulemaking that seeks to reduce risk of mortality and serious injury by 60 percent, the Conservation Framework provides for additional rulemakings to further reduce risk over the next decade at levels expected to lead to survival and recovery of the species. Central to the Conservation Framework is an adaptive management approach by which new information relating to the status of right whales and the impacts of fisheries and non-fisheries activities will be used to determine the extent of additional management measures needed.

Comment 7.2: NMFS should establish another process through which stakeholders can propose measures that could achieve equal or greater protections for right whales. The ALWTRP process is time-consuming, and does not allow for flexibility and adaptability.

Response: The MMPA requires NMFS to convene Take Reduction Teams and develop Take Reduction Plans. While this process can be time consuming, it provides a framework for developing mitigation measures and clear goals for the ALWTRP. The ALWTRT has the discretion to recommend mitigation measures that are flexible and adaptable in meeting the MMPA goals.

Comment 7.3: NMFS should include southeastern states in any future rulemakings, since right whales spend time in the southeast.

Response: To simplify and expedite rulemaking, NMFS chose to direct the ALWTRT efforts initially on the Northeast Region lobster and Jonah crab trap/pot fisheries because these fisheries constitute 93 percent of the U.S. buoy lines in areas where right whales occur. The Team includes southeastern state fishery managers as well as members that represent the South Atlantic Fishery Management Council and Southeast U.S. fishermen. NMFS has begun working with the ALWTRT to get their recommendations on further rulemaking that may include modifications to the southeastern fisheries that are subject to the ALWTRP. We will include outreach to stakeholders in these states in our future rulemaking efforts.

Comment 7.4: NMFS should enlist fishermen in disentanglement efforts, rather than relying on college students and other groups.

Response: Disentanglement efforts on large whales are conducted under a NMFS permit by highly skilled and trained responders throughout the United States. These responders come from a variety of backgrounds, including fishermen, and NMFS regularly conducts training that specifically targets fishermen and other members of the on-water community. Disentanglement techniques, tools, and protocols have been developed over decades and have been used as a model for successful rescues and international disentanglement efforts. National and international trainees come from all over the world to learn from and train with our teams in the United States. We do ask for assistance from untrained fishermen from time to time on specific cases, and will continue to do so to provide an effective disentanglement effort that is safe for both the disentanglement team and the whales.

Comment 7.5: NMFS should take emergency action to close all fisheries that use vertical lines or other gear that may entangle right whales, or to close all areas where whales may co-occur with fishing.

Response: There are several statutes that lay out the situations in which NMFS can take emergency action. In Section 118(g) of the MMPA, which many commenters mentioned, the Secretary of Commerce may implement emergency rules when incidental take from commercial fisheries are having ''an immediate and significant adverse impact on a stock or species.'' Where there is already a take reduction plan in place, the Secretary should develop such emergency rules that are consistent with the plan to the maximum extent practicable, and follow ''on an

expedited basis'' with amendments to the plan as recommended by the TRT to address the situation. In developing emergency rules, the Secretary must consult with the Marine Mammal Commission, TRT, fishery management councils, and state fishery managers. Emergency rules can only stay in place for 180 days, but can be extended for additional 90 days if an emergency situation persists.

Section 4(b)(7) of the ESA also includes emergency rulemaking authority provisions. NMFS has used this authority in the past to implement emergency rules for right whale protections (*e.g.,* SERO 2006 gillnet closure, 71 FR 66469, Nov. 15, 2006). This authority is available when there is an ''emergency posing a significant risk to the well-being of any species of fish or wildlife or plants.'' In an ESA emergency rulemaking, the Secretary must provide detailed reasons why the regulation is necessary, and must provide actual notice to state agencies in states where species occur. An ESA emergency rule can only last 240 days.

While ESA emergency rulemaking provisions explicitly waive the procedural rulemaking requirements of the APA and the ESA, likewise, the MMPA's emergency rulemaking authority provides an alternative to the normal rulemaking process of the MMPA, which would ordinarily include the APA's notice and comment requirements. These MMPA emergency provisions do not, however, waive other procedural requirements that agencies are subject to when undertaking a rulemaking, including NEPA, the Paperwork Reduction Act (PRA), or E.O. 12866. The NEPA regulations at 40 CFR 1506.12, for example, allow agencies to consult with the Council on Environmental Quality to develop ''alternative provisions'' in addressing an emergency situation, but agencies are expected to ''limit such arrangements to actions necessary to control the immediate impacts of the emergency.'' E.O. 12866 provides that in an emergency situation, ''the agency shall notify the Office of Information and Regulatory Affairs (OIRA) as soon as possible and, to the extent practicable, comply with subsections (a)(3)(B) and (C) of this section.'' The PRA includes emergency review provisions, subject to approval by the Office of Management and Budget (OMB) with a finding that the normal process will result in public harm or is not possible because of an unanticipated event, and even then the agency must take all practicable steps to consult with members of the public. To the extent that an emergency action would impact a wide range of the fishing community, the need to satisfy these procedural requirements would limit the speed of such actions.

Due to the above-referenced requirements for emergency action under the MMPA and ESA, including public notice and comment requirements NEPA, PRA, or E.O. 12866, and the limitations on how long an emergency rule can stay in effect (270 for MMPA, 240 days for ESA), NMFS believes that proceeding with the current action will provide the fastest relief and longest-lasting protections for right whales. NMFS generally views emergency actions to be appropriate where a clearly identifiable problem can be addressed with directed, focused measures, and such measures will effectively address the emergency in the timeframes to which such authorities are limited. Because it is difficult to predict where entanglements will occur given the relative scarcity of identified locations of entanglement, an emergency action to completely close all fisheries using vertical lines at this time would appear to be an overbroad use of its emergency authority. NMFS has not identified a geographic location or discrete temporal period within which emergency action would address a specific entanglement concern, and therefore NMFS believes that the complex issues associated with right whale fishery interactions are better addressed through the comprehensive approach in the final rule.

Comment 7.6: NMFS should take emergency action to immediately implement a year-round closure south of Martha's Vineyard and Nantucket.

Response: As noted in the response to Comment 7.5, we believe that the final rule will provide the fastest relief and longest-lasting protections for right whales, so we are not planning to take emergency action at this time. The final rule does include a seasonal closure south of Martha's Vineyard and Nantucket that will be in effect from February to April, when right whales have been sighted most frequently in high numbers in this area.

We have selected the larger of the closed areas analyzed as a restricted area in Alternative 3 (Non-preferred) in the DEIS, but is in the Preferred Alternative in the FEIS and is being implemented in the final rule. This larger restricted area was best supported by the most recent sightings data. Since 2018, right whales have been documented to the west of the originally proposed closure, such that the closure could relocate lines into areas of equally high whale density during the restricted season. The Preferred Alternative in the FEIS and final rule area encompasses the majority of the area where the highest density of right whales have been sighted, and the most recent sightings in years not yet within the Decision Support Tool demonstrate these aggregations have persisted. Restricting buoy lines within this area between February and April provides an estimated 4.6 percent risk reduction for the entire Northeast and captures much of the risk within that area. See FEIS Section 3.1.2.5 for our revised analysis.

Comment 7.7: NMFS should take emergency action to immediately implement seasonal closures in the three areas in the Gulf of Maine: Downeast summer closure from August 1–October 31, a western Gulf of Maine spring closure from May 1 to July 31, and an offshore migration closure from October 1 to April 30.

Response: As noted above, we believe that the final rule will provide the fastest relief and longest-lasting protections for right whales, so we are not planning to take emergency action at this time. NMFS analyzed the closure areas in the three Gulf of Maine areas proposed in an emergency rulemaking petition submitted by The Pew Charitable Trusts. Along with the year-round closure proposed in Southern New England, these four areas would achieve an estimated 12.6 percent risk reduction according to Decision Support Tool Version 3, using the updated right whale habitat density model (2010–2018). However, the team working on the current rule would have to divert to preparing a new emergency rule and the required NEPA analyses. As noted above, emergency measures may only be implemented within the limited timeframe provided by the statutory authority, and the approximate 67 percent risk reduction from the current rule far exceeds the estimated risk reduction suggested by the commenters. The final rule is a priority in order to implement broad risk reduction in a timely manner. See FEIS Section 3.4 for a further discussion of this and other alternatives that were considered but rejected.

Comment 7.8: NMFS should issue emergency regulations that remove vertical buoy lines from the water in areas of high entanglement risk to North Atlantic right whales.

Response: As noted above, NMFS would typically use its emergency authority in situations where a clearly defined problem can be addressed using discrete measures in a defined geographical area to effectively provide conservation protections within the limited timeframe provided by the statutory authority. Because the location of entanglements are so rarely observed,

it is difficult to pinpoint times and places where emergency measures might provide effective protections from entanglements. NMFS has not currently identified new areas where emergency regulations would be appropriate, but the final rule includes comprehensive measures that address entanglements on a broad scale, including measures that will reduce vertical buoy lines through trawling up and seasonal area closures. See FEIS Chapter 3.

Comment 7.9: How will the regulations in this final rule be evaluated?

Response: NMFS anticipates annual meetings of the Team to review the North Atlantic right whale and other large whale distribution and abundance data, mortality and serious injury data, retrieved entanglement gear analyses, fishing effort data, and other relevant research results. As they become available, these new data will also inform the evolving Decision Support Tool. Modifications to seasonal restricted areas will be considered annually by the Team, and they may make recommendations to amend the Plan, as needed. Following the recommendations of the NMFS Expert Working Group asked to review right whale surveillance and monitoring programs (Oleson *et al.* 2020), we anticipate a three-year surveillance and review cycle, providing additional opportunities to evaluate right whale distribution data to gauge seasonal restricted areas and other conservation measures contained in the ALWTRP.

Comment 7.10: NMFS should evaluate the success of past regulations, like sinking groundlines and breakaways, before adding more regulations.

Response: Under Section 610 of the Regulatory Flexibility Act, NMFS is required to review any significant rule to evaluate the continued need for regulation. To allow for sufficient time for economic adjustments to occur and for data to become available, we review rules every 7 years. The most recent ALWTRP rule was published in 2015, and will be coming up for review shortly.

Comment 7.11: Several commenters suggested that NMFS ban commercial fishing, ban certain commercial fishing gears, or focus on reducing the demand for seafood.

Response: MSA is the primary law that governs marine fisheries management in U.S. Federal waters. First passed in 1976, the MSA fosters the long-term biological and economic sustainability of marine fisheries. Its objectives include preventing overfishing, rebuilding overfished stocks, increasing long-term economic and social benefits and ensuring a safe and sustainable supply of seafood. The Atlantic Coastal Fisheries Cooperative Management Act, governing the U.S. lobster and Jonah crab trap/pot fisheries, directs the Federal government to support the management efforts of the Commission and, to the extent the Federal government seeks to regulate a Commission species, develop regulations that are compatible with the Commission's Interstate Fishery Management Plan and consistent with the MSA's National Standards. Regulations to seasonally close areas to fishing or to fishing with certain gear types have been implemented to comply with the MMPA, the ESA, and even the Magnuson-Stevens Act. However, a complete ban on commercial fishing or closure of an entire fishing sector when other options exist that allow fishing to occur while complying with the Acts would be inconsistent with our mandates under these laws.

Comment 7.12: NMFS should require all vessels in fixed-gear fisheries to use Vessel Monitoring Systems and/or AIS, submit Vessel Trip Reports, and have observer coverage in order to get better information on distribution and density of vertical lines.

Response: NMFS supports the collection of high resolution spatial data in the lobster fishery. The Commission recommended the collection of mandatory harvester reports in the Federal fishery, as part of Addendum XXVI to Amendment 3 to the Interstate Fishery Management Plan for American Lobster. NMFS is in rulemaking to develop harvester reporting requirements that complement the Commission's Interstate Plan for lobster. NMFS intends to work with the Commission, through a technical working group, to develop additional high resolution spatial data collection objectives and requirements, while balancing the financial burden to industry.

Comment 7.13: If the lobster/Jonah crab trap/pot fishery had been managed like the Northeast Multispecies fishery, there would be fewer offshore fishing permits, and we wouldn't be having this problem.

Response: The interaction risk of a protected species is largely associated with the gear type, but also the quantity of gear in the water, gear soak/tow duration, and the temporal and spatial overlap of the gear and a given protected species. For the critically endangered North Atlantic right whale, fixed gear fisheries with lines linking gear on the ocean floor to surface marking systems (buoys, etc.) pose the greatest risk as they have accounted for the majority of identifiable past fishery interactions. The DEIS indicated that the 2017 IEC model estimated that over 93 percent of fixed gear buoy lines within right whale habitats along the Northeast U.S. Atlantic coast are fished by the lobster and Jonah crab fishery. Thus, the lobster and Jonah crab fishery poses the greatest risk to right whales and has been the focus of this action. For comparison, the Northeast multispecies fishery authorizes the use of fixed gear (*e.g.,* gillnets), however, it is a relatively small component of the fishery and one of several fisheries comprising the other 7 percent of fixed gear fisheries with buoy lines.

The MSA, governing the Northeast Multispecies Fishery Management Plan, and the Atlantic Coastal Act (ACA), governing the Interstate Fishery Management Plan for American Lobster, are the primary laws governing marine fisheries management in U.S. Federal waters. First passed in 1976, the MSA fosters the long-term biological and economic sustainability of marine fisheries. Its objectives include preventing overfishing, rebuilding overfished stocks, increasing long-term economic and social benefits, and ensuring a safe and sustainable supply of seafood. The ACA directs the Federal government to support the management efforts of the Commission and, to the extent the Federal government seeks to regulate a Commission species, develop regulations that are compatible with the Commission's Interstate Fishery Management Plan and consistent with the MSA. These laws allow for the updating of management measures to meet legislative and management objectives. While adjustments to management measures may affect the quantity of gear fished, soak time or tow duration, or the spatial or temporal usage of gear, and, thus, may alter the interaction risk associated with any fishery to protected species, they are unlikely to dramatically alter the gear usage in these fisheries.

Comment 7.14: These rules will create safety hazards for fishermen, and will not reduce right whale entanglements or mortalities.

Response: We acknowledge that open ocean fishing is inherently dangerous, and that fishing is one of the most dangerous occupations. Fishermen configure their operations in the ways that work best for them, and any regulatory changes that require them to modify their practices can increase risk until adaptations to the new practices are made. Although some commenters have criticized the deference that NMFS gave to the states and offshore fishery

members in developing the Proposed Rule analyzed in the DEIS, the extensive outreach to fishermen informed the development of measures included in the final rule. Fishermen informed measures with important information such as number of traps that can fit safely on deck at one time, amount of force on rope hauled under commercial fishing practices, rope size that fits safely through blocks and haulers on commercial vessels, sizes of vessels and crews fishing at various distances from shore, local fishing conditions, and conservation equivalencies.

Alternative 2 (Preferred) of the FEIS and the final rule consider those public comments, including many of the conservation equivalencies requested, and accommodate those changes along with measures from the Proposed Rule that benefitted from earlier scoping. Together, these measures should prevent this rulemaking from introducing hazards beyond those that already exist in the lobster and Jonah crab fisheries.

Comment 7.15: NMFS should also evaluate the effects of these regulations on all the other large whale species in the region.

Response: Chapter 5 of the FEIS evaluates the effects of the final rule on large whales, other protected species, and habitat.

Comment 7.16: Thousands of commenters were concerned that cryptic mortality and uncertainty in the data was not taken into account when choosing the risk reduction target, and recommended an 80 percent risk reduction target or higher, with a few suggesting 100 percent.

Response: The application of cryptic mortality estimates in determining annual entanglement mortality and serious injury rates relative to the PBR level was a new concept when first introduced to the ALWTRT in 2019. Peer review of the cryptic mortality estimate had not yet been completed and although it was discussed in the 2018 Marine Mammal Stock Assessment Report (Hayes *et al.* 2019) that was available to the Team for the April 2019 meeting, cryptic mortality was not incorporated into the entanglement related mortality and serious injury estimates in that report. The 60 percent target based on documented mortality was in itself seen as a difficult challenge for the Team given uncertainties about the location of origin of most documented entanglement events. The 80 percent target was an initial attempt to account for early estimates of cryptic mortality, but was even more daunting and the Team recognized the uncertainty in that higher target given the many unknowns related to the unseen mortalities, including cause and location of deaths. Therefore, while the Team accepted the challenges of a 60 percent mortality and serious injury risk reduction, they were unable to agree on the higher target. The recent paper by Pace *et al.* 2021 on cryptic mortality and the more recent analysis in the current population estimate (Pace 2021) now provide more support for the 80 percent target than at the time the ALWTRT undertook its efforts to develop recommendations. Our understanding of cryptic mortality will affect management decisions going forward as new stock assessments and PBR calculations incorporate this new science.

Here, NMFS considered this new information, as well as the remaining uncertainty around apportioning mortalities to country and source, conservation equivalency recommendations from states and stakeholders, and the need for urgency in completing the current rulemaking constraining us to the scope of the analyses in the DEIS. Resulting modifications to the final rule included selection of a larger area closure south of the islands and modifications to management measures that improved risk reduction estimates to achieve a nearly 70 percent risk reduction as determined by the Decision Support Tool. Further efforts by NMFS to estimate serious injury and mortality and to apportion the estimates to country and mortality source will be included in guidance to the ALWTRT to support their development of recommendations for further amendments to the ALWTRP.

Comment 7.17: NMFS should focus risk reduction efforts on areas of high right whale occurrence.

Response: Chapter 3 in the FEIS describes how the alternatives were developed and explains that while precautionary measures are required throughout the regulated areas, more restrictive and protective measures are focused on areas of high right whale co-occurrence with buoy lines (*e.g.,* the hotspot analysis that identified restricted areas). Particularly, the months and areas with highest whale occurrence and co-occurrence are the areas that were selected for seasonal restricted areas. However, as described in Chapters 2, 3, and 8 of the FEIS, there is also a great need to implement measures that will be resilient to changes in whale distribution and therefore requires broader precautionary risk reduction across the regulated area.

Comment 7.18: Pending fishery management measures should not be counted in analyzing risk reduction.

Response: Noted in the ALWTRT recommendations and throughout the development of this rule, other relevant actions that we considered to be reasonably certain to occur within the timeframe evaluated within this rule were treated as such in our analysis of anticipated risk reduction throughout the regulated area. We commit to monitoring the progress of these related actions and reporting our findings to the ALWTRT at future meetings for consideration.

Comment 7.19: Massachusetts did not ban single traps on vessels longer than 29 feet in their rule, so how was that risk reduction re-allocated?

Response: During the development of the Proposed Rule, NMFS discussed this measure with the Massachusetts Department of Marine Fisheries and recognized that it was likely to be positive toward risk reduction. However, we were unable to estimate the impacts on risk. Since we did not assign any quantified risk reduction to that measure in the DEIS, there was no need to re-allocate it.

Comment 7.20: NMFS should adopt Maine's proposed conservation equivalencies.

Response: As discussed in FEIS Section 3.3, NMFS is adopting most of the conservation equivalencies offered by Maine out to 12 nm, and is appreciative of the work done by Maine Department of Marine Resources and the Zone Councils to develop and recommend weak insertion and trawling up requirements in collaboration with Zone Councils that are familiar with capacity and constraints of Zone-specific fishing operations and conditions.

Comment 7.21: Maine should get gear reduction credit if Maine funds tags or development of a GPS tracker.

Response: Technology and tracking in and of themselves do not reduce the risk of fishing gear on large whales. However, if Maine develops a line reduction program and reporting/tracking technology that demonstrates line reduction, it would be considered toward risk reduction.

Comment 7.22: In LMA 3, NMFS should analyze the difference in risk reduction between a 50 percent reduction in buoy lines and the proposed closure with potential gear displacement.

Response: Several scenarios were analyzed in Georges Basin Restricted Area for the DEIS and FEIS, including a 50 percent reduction in lines through a line cap or through trawling up and a

restricted area. The FEIS includes longer trawl lengths in this area compared to the DEIS (50 traps per trawl versus 45 traps per trawl) but still implements broader trawling up measures throughout LMA 3 in order to distribute risk reduction more evenly. The Georges Basin Restricted Area was predicted to increase co-occurrence in the DEIS (See co-occurrence maps in Chapter 5 and Appendix 5.2).

Comment 7.23: How is the Massachusetts Restricted Area credit being added to the risk reduction estimates?

Response: FEIS Section 3.3.5.1 discusses credit assigned to the Massachusetts Restricted Area and provides an assessment of risk reduction with and without application of the value of that area. The Team unanimously supported including credit for the Massachusetts Restricted Area, which was fully implemented in its current configuration in 2015 (79 FR 36585), given recent years' increased use of that area by right whales (*e.g.,* Ganley *et al.* 2019).

Comment 7.24: Were all the proposals evaluated using the same model?

Response: Each individual risk reduction measure and suite of measures were run through the Decision Support Tool (DST) Version 3 to identify the estimated contribution to risk reduction across the Northeast Region as defined by the Northeast Trap/Pot Management Area.

Comment 7.25: The Woods Hole Oceanographic Institute has developed a methodology in collaboration with the fishing industry to attribute risk to gear based on proportion of water column occupied. This information must be considered in this rulemaking.

Response: We anticipate adding this information to the DST in the near future. However, this is less important for the current rulemaking because an endline, assuming it approximates a straight line from the bottom to the surface, occupies all portions of the water column equally and the lobster industry has incorporated sinking groundline so groundlines may be assumed to have negligible presence in the water column. Incorporating proportions of the water column occupied are more critical for complex structures like gillnets or potential aquaculture installations, in which case it is important to model not only the proportion of water column occupied but also which portion of the water column is occupied and the vertical distribution of whales. This will be incorporated into the DST for future analysis of risk posed by different gear types that do not use the entire water column.

Comment 7.26: Some commenters questioned the validity of the threat component of the DST.

Response: The threat model based on the TRT opinion poll is no longer in use. Starting with the CIE review in 2019, the threat model has been based only on the analysis of empirical data on rope breaking strengths, rope samples retrieved from entangled whales, and whale spatial distributions. At this time, the model is unfortunately constrained to rope breaking strength but in two years of polling scientists and stakeholders, nobody has proposed a viable alternative. It is appropriate for the threat model to be equally weighted with line and whale density because entanglement risk only exists when lines are present, whales are present, and the lines pose a risk to whales. If any of these three factors are not present, the risk of entanglement is zero.

Comment 7.27: The DST is critically flawed in its reliance on an estimate of gear threat that significantly overemphasizes the contribution of rope strength to entanglement risk. By failing to account for the uncertainty inherent in the DST, NMFS overestimated the effectiveness of the selected methods for reducing risks to right whales.

Response: There are uncertainties in the DST calculations that we have not fully quantified. However, it is important to distinguish between uncertainty and bias and we have no reason to believe that the inputs and therefore model outputs are particularly biased high or low. Thus, while there is unquantified uncertainty around the risk reduction calculated by the DST, it is equally likely that actual risk reduction is higher than estimated as lower than estimated and no reason to believe that risk reductions are overestimated.

Comment 7.28: NMFS should implement these regulations as soon as possible as any delays come at the expense of right whales.

Response: NMFS recognizes the urgency of the current situation and intends to implement these regulations to provide needed conservation benefits to right whales as soon as possible. We intend to implement new seasonal restricted areas 30 days after the rule is finalized. Massachusetts Restricted Area fishermen have indicated that it takes several trips for them to remove all of their gear, and because of unpredictable winter weather and holidays, they remove and move beginning at least a month in advance of their February 1 closure. The LMA 1 closure will likely result in moved trawls rather than trawls brought to the beach and stored on land so may not require round-trips to the dock. Many fishermen moving gear from the South Island Restricted Area would be expected to remove gear prior to the February 1 closure; one month should provide sufficient time to remove gear. Gear configuration changes including trawling up, weak buoy lines or weak insertion installation, and gear marking, will be delayed for a longer period of time because these buoy and groundline modifications will take substantial time. The delayed effective date will factor in winter or low effort months when many fishermen have removed gear from the water for maintenance. The actual effective dates will depend on when the Notice of Availability of the FEIS and the final rule are released. Our intention is that all measures will be in place for the next fishing year starting in the spring of 2022.

Comment 7.29: Some components of the rule state prohibitions ''to fish with, set, or possess'' where other portions leave out ''set.'' If this was strategic, please clarify how ''setting'' is separate from the regulatory intent of ''to fish with.

Response: This was carryover language from the existing regulations. The word ''set'' is included within seasonal restricted areas; seasons when gear must be removed unless fishing without buoy lines. During the season that the gear can be fished with gear configuration requirements referenced in the regulations, the word ''set'' is not included.

Comment 7.30: It is our understanding that any trap, pot, contrivance etc. that is capable of catching a lobster is required to have a valid lobster trap tag affixed to it. This would indicate that any trap which falls into this category is subject to the marking, weak insert, and trawling up requirements of this rule. We would ask for clarification on this assumption from NOAA, which should help to guide discussions in the next ALWTRT process which will be aimed at the additional gear types of gill nets and fish pots.

Response: Any trap/pot within the Northeast Trap/Pot Management Region with a lobster trap tag will be required to comply with the marking, weak insert, weak line, and trawl length requirements.

Comment 7.31: While some of these proposals may end up being effective, this proposal makes very clear that there is insufficient mortality and tracking data on right whales, and many of the suggested changes will be considerably

more detrimental to the fishing industry than beneficial to the whales.

Response: The Decision Support Tool estimates at least a 60 percent reduction in entanglement risk, which is spread across the region to remain resilient to changes in right whale distribution. The population and distribution are frequently monitored via aerial/vessel surveys as well as with acoustic detection, and will be evaluated to ensure the measures are targeting areas where entanglement risk exists. See more about monitoring in response to Comment 9.10.

Comment 7.32: The proposed rule does not consider reduction in effort, particularly for recreational fisheries. PEER urges NOAA to consider the effect of reducing or eliminating recreational fisheries in right whale habitat.

Response: The ALWTRP only regulates Category I and II commercial fixed gear fisheries identified in the Plan. Additional regulation of recreational fisheries is outside the scope of the current rulemaking.

8. Research

Comments on research generally fell into one of three categories: Whale distribution, insufficiency of current data, and entanglements. Many of the fishermen commenting said they had either never seen a right whale where they fish, never seen or heard of an entangled right whale in areas where they fish, did not believe that there was any recent evidence of entanglement in their trap/pot lines, and questioned the validity of the scientific models on whale distribution.

Comment 8.1: NMFS has not shown that entanglement in lobster trap/pot gear contributes to low birth rates.

Response: There is a wealth of research that demonstrates that stressors, including entanglements in fishing gear like traps/pots, have effects on marine mammal health and reproduction. Entanglements in fishing line, such as those used in the lobster trap/pot fishery, is energetically costly for right whales and requires expenditure of a portion of their energy budget that would otherwise be allocated to reproduction (van der Hoop *et al.* 2017a). Entanglements can reduce overall whale health and increase calving intervals (Rolland *et al.* 2016, Moore *et al.* 2021). Entanglements that restrict feeding further impact energetic reserves and ability to feed (van der Hoop *et al.* 2017b). An inability to get enough food is also an important factor in the reproductive health of right whales (Meyer-Gutbrod *et al.* 2015). See FEIS Chapters 5 and 8.

Comment 8.2: Healthy whales don't get entangled in fishing gear; there is something else wrong with them.

Response: Several commenters stated the belief that healthy whales do not get entangled in fishing gear. Entanglement in fishing gear is a global problem that has been documented for many whale and dolphin species. In the Northeast Region, humpback and minke whale entanglements are not uncommon. More than 85 percent of North Atlantic right whales have experienced entanglement in fishing gear, many more than once. A recent assessment of all right whale photos reveals that entanglement scarring injuries have increased, with roughly more than 30 percent of the population having at least minor entanglements each year. Much of the population has been entangled multiple times, and there is a more than 90 percent chance that a healthy female will get entangled between each calving cycle potentially contributing to reduced calving rates. Repeated and chronic entanglement affects whale health and some whales with unrelated compromised health status may be more vulnerable to injury and death. However, there is no evidence that healthy whales are more adept at avoiding entanglement.

Comment 8.3: NMFS should hire mechanical engineers to examine the rope and net configurations that are causing entanglements to occur.

Response: NMFS conducts extensive analysis of recovered gear from entangled whales using our gear team, which includes former and active fishermen. We also regularly consult with active fishermen who have decades of experience and are well versed in various fishing methods and local practices. The various configurations we have seen over decades of recorded entanglements varies widely, but the basic fact is that rope or net in the water column has the potential to entangle large whales. NMFS also funds bycatch reduction research, and considers research by right whale scientists that include modeling of entanglement configurations. NMFS does not believe that hiring mechanical engineers is necessary.

Comment 8.4: NMFS should develop a plan to monitor all whale entanglements, including observer coverage and satellite monitoring.

Response: NMFS, state, and independent research organizations coordinate monitoring whale entanglements. Monitoring of entangled whales is done through comprehensive survey effort to resight individuals and check for entangling gear or scarring. Satellite position beacons are sometimes attached to gear entangling a whale to facilitate finding the whale for a disentanglement effort. Because whale entanglement incidents are rare relative to fishing effort hours and whales typically carry gear away from incident sites before a vessel returns to the gear, an observer program is not an effective means for large whale entanglement monitoring.

Comment 8.5: How can NMFS justify a seasonal restricted area if there have been no confirmed entanglements in that area in over a decade? No North Atlantic right whales have been entangled in gear attributable to Maine trap/pot gear in at least 15 years, because the whales no longer are in Maine waters.

Response: No gear remains on most right whales that bear entanglement scars. In the cases where gear does remain, it is rarely collected, and even more rarely has any identifying marks. Between 1980 and 2016, the New England Aquarium analyzed 1,462 right whale entanglement interactions (A. Knowlton pers comm). Only 110 of these incidents had gear still attached, and in only 13 cases could that gear be traced to the original set location. Because we lack information on exactly where interactions occur, we use areas of high co-occurrence of right whales and fishing gear as a proxy for identifying areas of high entanglement potential. The Decision Support Tool also considers the type of gear in determining the risk of a serious entanglement that would cause mortality or serious injury. The seasonal restricted areas identified in the final rule are based on hot spots, areas with high current and historic habitat use by North Atlantic right whales, high fishing gear density and high configuration threat. The population and distribution are monitored via aerial/vessel surveys as well as with acoustic detection, and will be evaluated to ensure the restricted areas are effective. See more about evaluation below in response to Comment 9.10.

Until September 2020, when Maine required gear marking in exempted waters, most Maine lobster fishery buoy lines were unmarked. Therefore, if a buoy line fished by a vessel operating under a Maine permit entangled a right whale, the odds of tracing that rope to a Maine lobster fishery buoy line have been extremely low. The commenters are correct that no rope retrieved from a right whale has been specifically traced to gear set by Maine trap/pot fishermen since the 2000s. However, cases in 2011 and 2012 were identified as U.S. unknown trap/pot gear with red ALWTRP marks, consistent with the

marking scheme for Maine fishermen outside of exempted waters during those years. Additionally, a number of anchored minke whales and humpback whales have been identified in Maine gear in the past 15 years. Maine lobster buoy lines entangle and kill whales.

As noted by the commenters, right whale distribution has changed in the past decade, and there may be fewer or less dense aggregations of whales in the Gulf of Maine. Right whales continue to occur in Maine waters; however, and given the endangered status of the population, the high rate of entanglements evidenced by scars on right whales, and the continued mortality and serious injuries above PBR, NMFS must provide protective measures throughout the population's range in U.S. waters.

Comment 8.6: One commenter indicated that the data shows that gillnet and netting gear were the most prevalent gear (other than Canadian snow crab gear) and the Northeast lobster fishery were the least prevalent in right whale entanglements.

Response: As detailed in Chapter 2, while gillnet gear may be identified at rates higher than anticipated given the relative number of buoy lines, there are more cases identified as trap/pot found on right whales than identified gillnet gear and the most prevalent gear seen on right whales is described as unknown rope.

Comment 8.7: The Decision Support Tool relies on coarse data for both line density and whale density, and should not be used. There is no way to model where the whales are and where the gear is with any degree of certainty.

Response: The Decision Support Tool (DST) was and continues to be the best available analytical tool to assess the co-occurring risk of large whale entanglement in commercial fixed gear. The model compiles the best available large whale habitat density modeling by Roberts *et al.* (2016) which incorporates data from nearly every systematic marine mammal survey of the eastern United States. The DST also draws from every available state and Federal fisheries data source to incorporate the best available estimate of the distribution of fixed gear fisheries vertical lines within the Exclusive Economic Zone. We agree that there are uncertainties associated with this model, and any model, but we are confident in the DST's ability to inform the Team's discussion and recommendations toward a risk reduction goal.

Comment 8.8: NMFS right whale population model overestimates the cumulative mortalities.

Response: The estimates of total mortality are derived from a peer-reviewed methodology designed to estimate the abundance of North Atlantic right whales. The model itself is a version of methodology used for many species of wildlife in which particular statistical characterizations are used to characterize the capture and/or resighting (both alive and dead) histories of individually marked whales to estimate survival rates. These models take into account that individuals are not seen every year, and this particular model allows individuals to have different probability of being ''captured'' on each capture occasion.

It is true that these models cannot distinguish between true mortality and the appearance of mortality that would come from an individual permanently leaving the survey areas. For that to happen in great abundance would suggest that many whales use the United States and Canadian coasts for enough time to become catalogued and then decide to move elsewhere and never return. There is simply no evidence for that scenario. Indeed, there is abundant evidence that the great mobility and long life of right whales allows them to take modest sojourns to Icelandic and even Norwegian waters and return to the survey areas to be ''recaptured'' once again.

Very few wildlife populations even approach having all mortality documented by detected carcasses. Despite the vast survey effort directed at right whales, given the large amount of area that right whales travel, right whales and other large whales likely die without their carcasses ever being seen.

Comment 8.9: NMFS should use a longer time series to make any determinations, as well as acoustic and prey data.

Response: The FEIS is a compilation of the best available scientific information including information on documented and projected changes in prey distribution. Acoustic data are increasingly used to identify right whale distribution and are included in the near real-time sightings posted on our website at *fisheries.noaa.gov/resource/map/north-atlantic-right-whale-sightings,* and passive acoustic monitoring research is available at *apps-nefsc.fisheries.noaa.gov/pacm/#/narw.* For a complete list of citations, see the list of references included at the end of every FEIS chapter.

Recent population models demonstrate that the right whale population decline began in 2010 and accelerated around 2015 (Pace *et al.* 2021). We cannot wait another decade to respond to that decline.

Comment 8.10: Thousands of commenters who submitted comments as part of a campaign noted that the Proposed Rule relied on outdated population estimates to calculate PBR, and requested that the calculations be updated and a new PBR determined.

Response: The calculations in the DEIS showing how NMFS proposed to achieve that risk reduction relied on the 2018 Stock Assessment report available when the DEIS was drafted, using 2016 population estimates. The FEIS has been updated with the most recent population estimate (Pace *et al.* 2021) and stock assessment data (Hayes *et al.* 2020), including the PBR of 0.8, down from 0.9 in the DEIS. For more, see FEIS Section 2.1.1.

Comment 8.11: NMFS should use peer-reviewed science before implementing any regulations.

Response: NMFS concurs. The FEIS is a compilation of the best available scientific information. Included in the FEIS are data from the Stock Assessment Reports, which are peer reviewed by the Atlantic Scientific Review Group and subject to review by the public, and results from the Decision Support Tool, which underwent an independent peer review conducted by the Center for Independent Experts.

Comment 8.12: The data used to determine whale distribution is flawed and incomplete, and therefore should not be used to make regulations.

Response: NMFS disagrees with this assessment. The whale distribution data is the best available information. Although more data will help increase the accuracy of analysis results, there is no indication that results to date are incorrect, nor is there evidence that either the data or the analytical approaches taken to date are flawed. The data have been collected with strict adherence to established protocols, and analyses have used accepted peer-reviewed statistical methods.

Comment 8.13: What are the migratory patterns of right whales in LMA 2?

Response: An interactive map of right whale sightings data, including sightings in LMA 2, can be found online at *fisheries.noaa.gov/resource/map/north-atlantic-right-whale-sightings.*

Comment 8.14: NMFS should do more to gather data on right whale distribution, including increasing aerial, boat-based, and drone surveys.

Response: We agree that more data are needed to refine our understanding of right whale distribution. With available resources, NMFS is maintaining aerial surveys, increasing acoustic surveys and investigating additional tools to

document whale distribution and individual identification. NMFS is working to identify the primary factors that correlate with right whale distribution to help identify other areas where right whales are likely to occur to direct future survey efforts.

Comment 8.15: NMFS should develop ways to tag and track right whales.

Response: NMFS agrees that tagging would help us learn more about right whale movements and habitat use. Long-term attachments used in past studies require an invasive approach to implant tag anchors. These efforts were halted on right whales out of concerns regarding potential health impacts. NMFS has supported development of less invasive tags to track (greater than 24 hours) right whales since 2014. First, we began supporting an investigation into using dart-style Low Impact Minimally Percutaneous Electronic Transmitters (LIMPETs) on right whales. Although a few of the tags successfully tracked right whale movements through the mid-Atlantic, most tag attachments were relatively brief. Fortunately, there was no evidence of negative health impacts in any of the whales that were tagged. We also began, and continue to support, the development of blubber-only tags. These are slightly more invasive than the LIMPET tags. The fieldwork component of this study was interrupted by the global pandemic. Still, tag enhancements continue to be supported including investigations into tag materials, tag retention methods, etc. It should be noted that despite several decades of development, many of the technical and logistical challenges of tagging continue to limit the utility of this approach. It is therefore important for NMFS to continue and enhance existing monitoring programs to provide whale location information for a large portion of the population.

Comment 8.16: NMFS should use spotter planes to make fishermen aware of when whales are in their area.

Response: NMFS uses multiple means to track right whales, including aerial surveys and acoustic monitoring systems. Near real-time sighting information can be found on our website at *fisheries.noaa.gov/resource/map/north-atlantic-right-whale-sightings.*

Comment 8.17: Warming in the Gulf of Maine is causing changes in copepod distribution, driving whales to Canada, and out of Maine.

Response: NMFS agrees that large whales are susceptible to ecosystem changes caused by climate change and right whale habitat use changes have been documented. Baleen whales will most likely continue to expand or shift their current range in response to prey species but the nature of the impacts varies by species (MacLeod 2009). Right whale habitat shifts in recent years follow their preferred prey farther north as the Gulf of Maine warms (Meyer-Gutbrod *et al.* 2018, Meyer-Gutbrod and Greene 2018, Record *et al.* 2019a, Record *et al.* 2019b). Climate change impacts their preferred prey abundance, which is known to impede reproductive success in this species (Meyer-Gutbrod *et al.* 2015a). Since 2010, there has been a documented change in right whale prey distribution that has shifted right whales into new areas with nascent risk reduction measures, increasing documented anthropogenic mortality (Plourde *et al.* 2019, Record *et al.* 2019). However, data shows that while abundance and duration of stays may have shifted, right whales still occur in waters offshore of Maine and throughout the Gulf of Maine at various times of the year. Past and near real-time right whale sighting information can be accessed online at *fisheries.noaa.gov/resource/map/north-atlantic-right-whale-sightings.*

Comment 8.18: North Atlantic right whales do not occur in coastal, shallow waters or in LMA 1, and therefore, Maine coastal waters, particularly inside the 3 nm line, should be exempted from these regulations.

Response: Gear marking and weak insertion requirements inside the Maine exempted waters are not included in this rulemaking. These measures are (gear marking) or will (weak insertions) be implemented by Maine DMR. Note, however, that the risk reduction benefits of weak insertions are considered in the FEIS.

Comment 8.19: Massachusetts lobster and Jonah crab trap/pot fishing gear has never killed a right whale. These regulations will not save whales and will force Massachusetts lobstermen out of business.

Response: No gear remains on most right whales that bear entanglement scars. In the cases where gear does remain, it is rarely collected, and even more rarely has any identifying marks. Between 1980 and 2016, the New England Aquarium analyzed 1,462 right whale entanglement interactions (A. Knowlton pers comm). Only 110 of these incidents had gear still attached, and in only 13 cases could that gear be traced to the original set location. Because we lack information on exactly where interactions occur, we use areas of high co-occurrence of right whales and fishing gear as a proxy for identifying areas of high entanglement potential. For example, the Massachusetts Restricted Area was identified in the 2014 modifications to the ALWTRP based on high co-occurrence given frequent habitat use by North Atlantic right whales and fishing gear density. There are other areas in Massachusetts that have been identified as hotspots where entanglement risk is high for right whales based on predicted whale density and the presence and strength of trap/pot gear (see Chapter 3).

There are cases in 2011 and 2012 where gear was recovered and were identified as U.S. unknown trap/pot gear with red ALWTRP marks, consistent with the marking scheme for Massachusetts fishermen outside of exempted waters during those years. In 2001 and 2016, right whale mortalities or serious injuries in Massachusetts lobster gear were avoided only because they were successfully disentangled. Additionally, a number of anchored minke whales and humpback whales have been identified in Massachusetts gear in the past 15 years, so Massachusetts lobster buoy lines do entangle and kill whales.

Comment 8.20: Whale population data is flawed because right whales are traveling between Iceland and Labrador, and are not dead as the model suggests.

Response: The right whale population model estimates the number of right whales that have disappeared from the population. Given the high percentage of the population seen in most years, those whales are to some extent presumed dead. It is possible that some right whales are not dead, but have emigrated to another area for an extended period. Some individuals have been resighted after an absence of many years. This is unusual, however, and it is unlikely that all the whales considered dead have only emigrated. We currently have few records of right whales seen beyond Newfoundland, and to date the whales photographed in the Eastern Atlantic have all been seen again in U.S. waters. See our response to Comment 8.7 for more detail.

9. Restricted Areas

The vast majority of commenters associated with campaigns, as well as at least 97 unique commenters, support restricted areas as a management tool, with many suggesting that some or all of the closures should be larger and/or longer. A few commenters did not support specific restricted areas, and some did not support restricted areas of any kind. Many commenters supported the idea of dynamic management for restricted areas, such that the areas could be opened if no right whales were documented in the area at the time of a closure or areas could be closed upon the sightings of right whales. Several

commenters questioned the risk reduction value for the Massachusetts Bay Restricted Area, which we did continue to include in our risk reduction estimate for the Preferred Alternative, as described in FEIS Section 3.3.4.2.

Comment 9.1: Several commenters suggested that restricted areas should apply to gillnet/mobile gear.

Response: The ALWTRT is meeting to develop recommendations to reduce the risk of gillnet and other trap/pot fisheries on right whales and other large whales. Seasonal restricted areas are likely to be among the risk reduction strategies considered by the Team.

Comment 9.2: NMFS should use dynamic closures such as those being used in Canada. Dynamic closures would allow fishermen to keep fishing as long as the whales are not there.

Response: The ALWTRP has used Seasonal Area Management to protect right whales in areas of annual predictable aggregations since the inception of the Plan. The Plan also has employed dynamic management to protect temporary right whale aggregations. Measures implemented through amendments to the Plan in 2002 triggered closures or gear modification requirements for lobster and gillnet fishing within a prescribed distance from sightings of right whale aggregations. Borggaard *et al.* (2017) summarizes the ALWTRP's amendments, including the evolution of the Dynamic Area Management (DAM) program. More than 60 dynamic area management zones were implemented between 2002 and 2009. Borggaard *et al.* notes that the program was administratively burdensome and attracted significant complaints regarding feasibility and effectiveness, ranging from delayed implementation preventing whale protection, to such rapid implementation that fishermen could not safely remove or modify their gear in time for the required effective dates. Given these concerns about the DAM program, the Team modified the Plan to instead apply broad-based extensions of the gear modifications used in DAMs (such as sinking groundline required in most trap trawls through 2009 Plan amendments). Broad-based gear requirements afford protection to whales, and is a measure that is resilient to changes in whale and fishery distribution.

Although it was not effective at preventing mortalities in 2019, Canada's vessel speed and fishery dynamic management program seems to have afforded substantial protection to right whales in the Gulf of St. Lawrence in 2018 and 2020. Canada implements time-area closures with boundaries that vary based on direct observations that respond to annual or seasonal resources distribution changes. To be done well Canada currently implements an intensive and expensive surveillance program through aerial surveys and acoustic monitoring. Canada also has an agile regulatory implementation authority.

While NMFS and our collaborators may be able to support an intensive surveillance program when resources are available, the U.S. regulatory requirements are not as agile. As discussed above, while DAMs were being implemented, NMFS rulemaking was often unsuccessful at responding rapidly to changing conditions. NMFS rulemakings under the MMPA and ESA are also subject to procedurally complex Federal laws and requirements that Canadian resource management is not subject to, including NEPA, PRA, APA, and E.O. 12866. These laws include consultation requirements, notice and comment requirements, and environmental and economic analyses of the impacts of Federal rulemaking before final decisions can be made about Federal actions that could have environmental effects. Evaluating the impacts of future actions that have not yet been determined is logistically very challenging. NMFS, other Federal agencies, and many collaborators are continuing to develop models that may be able to project prey and whale distribution into future months that could provide tools to develop predictable triggers for dynamic area management measures.

Comment 9.3: Many commenters voiced concern that NMFS had not adequately accounted for the effort displacement and crowding that will be caused by closures.

Response: In response to these comments, we modified our analysis in the FEIS to consider the impacts that would be caused by vessels relocating gear from the LMA 1 Restricted Area to offshore waters of Maine Lobster Zones C, D, and E. The analysis in FEIS Section 6.3 estimates the landing reduction for all vessels outside 12 nm in Maine Lobster Zones C, D, and E by using data from the Maine DMR harvester reports, which are only available for 10 percent of Maine lobster fishermen, and from 100 percent of the dealer reports.

Comment 9.4: How will the restricted areas affect mobile gear fishermen?

Response: Restricted areas may result in opening up of fishing habitat that mobile gear vessels have not been able to access due to the presence of lobster trawls, although the benefits may be marginal.

Mobile gear fishermen have expressed concerns about conflicts with ropeless gear trawls that may be fished under EFPs and that could increase gear conflicts if trawlers do not know the gear is on the bottom. The final rule changes existing and new seasonal restricted areas from fishing closures to buoy line closures. This would allow the use of gear fished without buoy lines (commonly referred to as ''ropeless'' gear). Fishermen who obtain EFPs to fish without buoy lines could pose some gear conflict threat to mobile gear fishermen. Ropeless experimentation with the proper authorization can be done anywhere, however access to areas otherwise closed to lobster fishing could incentivize fishermen to conduct ropeless fishing within the seasonal restricted areas.

Ropeless experimentation in the lobster and black sea bass trap/pot fisheries is occurring already. In the northeast, NMFS and ropeless fishing collaborators are working with groundfish and scallop bottom trawl fishermen to assess bottom marking technology being developed to allow mariners to detect lobster. Concerns that this experimentation will occur broadly in the near term appear to be unfounded. Due to the cost of ropeless technology, for the foreseeable future we believe that ropeless experimentation will be limited to collaborators accessing the NMFS ropeless gear cache, with perhaps an additional 10 percent of trawls being fished with other ropeless units. The NMFS gear cache also loans technology to collaborating mobile gear fishermen. For the next few years, we anticipate that the largest number of trap/pot trawls that could be supported by these efforts would approach about 330 pot/trap trawls coastwide (Maine through Florida). Additionally, we anticipate that EFP conditions will require participants to work with adjacent trawl fisheries, as well as other notice requirements that will prevent gear conflicts and support enforcement efforts. Collaboration across gear sectors, use of the NMFS ropeless gear cache, and reporting and monitoring conditions under exempted fishing permits should keep costs and gear conflicts to a minimum while ropeless technology is evaluated for potential use as an alternative to fishery closures.

Comment 9.5: Many commenters were concerned that restricted areas would create ''walls'' of dense gear right outside the borders, posing a greater risk to right whales.

Response: We have modified our analysis in the FEIS to consider gear displacement in response to the restricted areas. These analyses resulted in changes in the South Island Restricted Area selected for final rulemaking, and was one of the reasons that a seasonal buoy line closure was not selected for the Georges Basin Restricted Area in the preferred alternative. Updated calculations on the gear displacement effects of restricted areas suggested the alternative restricted areas displaced gear to areas of equal or higher co-occurrence, although ''walls'' of gear were not projected. The borders of the restricted areas are not uniformly productive lobster habitat. Fishermen are more likely to redistribute their gear to fishing ground that is productive. Please see Chapters 3, 5, and 6 of the FEIS for more details.

Until recently, NMFS had no evidence that existing closures created ''walls'' of gear. In April 2021, however, concentrations of gear were observed in a small open area east of the state of Massachusetts extended spring closure area and west of the Massachusetts Restricted Area (MRA). This appears to be an unintended consequence of the state extension of the MRA in state waters to the northern state boundary. Although this patch of Massachusetts Bay is not a productive fishing ground during this season, fishery managers believe that fishermen permitted to fish in both state and Federal waters did not remove their gear in response to the closure, but instead moved gear out of the state waters and into this small open band of water while waiting for the MRA to open up May 1 (Bob Glenn, Massachusetts DMF, pers comm April 26, 2021). Federally permitted fishermen may also have been staging their gear, taking it out over multiple trips and days until the MRA opened. NMFS will consider future rulemaking to extend the northern boundary of the MRA across to the coast to close that gap and prevent an annual development of this high-risk dense gear storage area. The unconstricted nature of waters surrounding other seasonal restricted areas are not expected to similarly aggregate gear.

Comment 9.6: NMFS should add a restricted area north of Georges Bank and/or expand the Georges Bank restricted area. Georges Basin has a right whale hot-spot analysis five times greater than LMA 1.

Response: The final rule does not implement a restricted area in Georges Basin, but instead includes additional reduction of lines in this area (50 traps per trawl within the restricted area). The previous analyses suggest that it is difficult to restrict fishing in this hotspot without pushing effort to areas that increase risk outside of the hotspot based on predicted whale density (see co-occurrence maps in Chapter 5 and Appendix 5.2 the DEIS). Broad line reduction, however, achieves line and associated risk reduction without incidentally increasing co-occurrence of gear with right whales within this area.

Comment 9.7: The Pew Charitable Trusts' online message campaign of more than 47,000 submissions requested that NMFS implement a year-round closure South of the Islands, and seasonal closures in three areas in the Gulf of Maine: Downeast summer closure from August 1–October 31, a western Gulf of Maine spring closure from May 1 to July 31, and an offshore migration closure from October 1 to April 30.

Response: NMFS analyzed the Gulf of Maine closures proposed by The Pew Charitable Trusts along with the year-round closure proposed in southern New England. Some of the areas identified were predicted to move gear into areas of equal or greater risk. One area south of Cape Cod is similar to the seasonal restricted area implemented in this rule, although the area they proposed was larger in size and duration. The risk reduction estimate for the configurations and seasons proposed by Pew would achieve an estimated 12 percent risk reduction according to Decision Support Tool Version 3, using the updated right whale habitat density model (2010–2018).

However, to implement these measures, NMFS would have to set aside the current rulemaking conducted under the ALWTRT, and divert staff working on final rule and FEIS to prepare a new rule and NEPA analyses, not a small undertaking. The final rule, which is estimated to achieve approximately 67 percent risk reduction, is the NMFS priority. See FEIS Section 3.4 for a further discussion of the petition and other alternatives that were considered but rejected.

Comment 9.8: Many commenters wanted to know how NMFS will evaluate and modify restricted areas based on changes to whale distribution, and how often those evaluations will take place.

Response: NMFS anticipates annual meetings of the Team to review the North Atlantic right whale and other large whale distribution and abundance data, mortality and serious injury updates, retrieved entanglement gear analyses, fishing effort data, and other relevant research results. These data will be incorporated into the next iterations of the Decision Support Tool. The Team will consider modifications to seasonal restricted areas on an annual basis, and the team will continue to make recommendations to amend the Plan. Following the recommendations of the NMFS Expert Working Group, which reviewed the right whale surveillance and monitoring programs (Oleson *et al.* 2020), the NEFSC anticipates a three-year surveillance and review cycle, providing an additional opportunity to review right whale distribution data to evaluate seasonal restricted areas and other conservation measures contained within the ALWTRP.

Comment 9.9: Restricted areas should be based on the best available science, which includes recent and historical sightings, acoustic data, and prey data.

Response: As described in FEIS Section 5.1, the seasonal restricted areas that are being implemented through the final rule are based on the best available information, including recent and historical right whale and other large whale sightings data, acoustic monitoring data, and data on prey distribution. The FEIS includes analysis based on updated data that has become available since we drafted the DEIS.

Comment 9.10: Dynamic triggers for closures would not be feasible, and NMFS should remove that from consideration in the final rule.

Response: NMFS agrees that real time data are not available to develop an effective trigger for restricted areas. To reduce risk to right whales, the LMA 1 area will be implemented as a closure to lobster/Jonah crab fishing with buoy lines from October through January each year.

Comment 9.11: Commenters suggested that LMA 1 was designated a ''hotspot'' for right whales based on old data, and should be analyzed using data after the ecosystem shift that began in 2010. As a result of old data, the analysis in the proposed LMA 1 closed area appears to be disproportionately high in risk reduction value compared to the Massachusetts Restricted Area, given the relatively low abundance of right whales in that area and the high abundance in Cape Cod Bay.

Response: In the DEIS, we evaluated whale data from 2003 to 2017 (Whale model 8, DST Version 2). The proposed LMA 1 Seasonal Restricted Area was estimated to have the same risk reduction value of the MRA. However, when the Duke whale model was updated to include only whale distribution since 2010 (Whale model 11, DST Version 3), while the spatial distribution off Maine generally didn't change, the relative abundance of right whales did. Using the newer data, the

LMA 1 restricted area contributes less risk reduction benefit (approximately 6.6 percent) than was considered in the DEIS when considered across all of the Northeast Lobster Trap/Pot Management Area. However, the value of the LMA 1 Seasonal Restricted Area remains an important piece of the risk reduction for Maine permitted fishermen. See FEIS Sections 3.1.2.5.1 and 5.3.1.1.2 for more information regarding the selection and analysis of the LMA 1 restricted area.

The LMA 1 Seasonal Restricted Area was created to supplement the risk reduction contribution of the Maine lobster fishery to the overall 60–80 percent risk reduction for the Northeast Trap/Pot Management Area, following the ALWTRT's recommendation in April 2019 to spread risk reduction across jurisdictions. The original recommendation approved by the Maine caucus achieved that level of risk reduction primarily through a 50 percent line reduction. However, after the ALWTRT meeting, the Maine DMR and the Maine Lobstermen's Association members on the Team withdrew their support for such extensive line reduction measures. Maine DMR developed alternatives and used an alternative risk reduction calculation to demonstrate their belief that their alternative, which included broad use of weak insertions and some trawling up to reduce vertical buoy line numbers, achieved a 60 percent risk reduction. NMFS' analysis of the Maine risk reduction measures for the DEIS estimated that the Maine DMR revisions were insufficient to achieve 60 percent risk reduction for Maine-permitted fishermen in LMA 1. In discussions regarding preliminary analyses with Maine DMR prior to their submission of alternatives, NMFS suggested a closure along the LMA1 Restricted Area border with LMA 3 to improve the risk reduction calculation for that area during winter months when right whales have been demonstrated to aggregate in offshore waters.

Comment 9.12: NMFS erred in conducting hot-spot analysis by Lobster Management Area rather than the region as a whole, and as a result, fails to provide evidence that the LMA 1 Restricted Area is supported by the data.

Response: We disagree. As analyzed in FEIS Section 5.1, and in comment 9.11 above, the LMA 1 Restricted Area provides significant risk reduction for right whales. This area was identified as part of a Northeast Trap/Pot Management Area fishery-wide hotspot analysis. See FEIS Section 3.1.2.4 for further details.

Comment 9.13: Several commenters suggested that LMA 1 should be closed in the spring rather than fall, both to alleviate lost profits and to protect calves.

Response: In evaluating the risk reduction provided by the restricted areas, we relied on the peer-reviewed DST. The DST does not indicate substantial risk reduction from restricted areas implemented in the spring or summer months. The DST indicates that October through January demonstrate the most effective risk reduction to right whales. See FEIS Section 5.1 for more information. Estimated right whale habitat density and co-occurrence is included in the table below.

TABLE 5—LMA 1 MONTHLY RIGHT WHALE DENSITY AND CO-OCCURRENCE WITH BUOY LINES

Month	Right whale habitat density	Right whale co-occurrence
January	6.31	23.50
February	1.37	3.87
March	0.12	0.33
April	0.16	0.43
May	0.98	1.74
June	0.85	1.26
July	0.44	0.66
August	0.17	0.37
September	0.35	0.74
October	4.50	11.00
November	8.75	24.42
December	5.37	15.99

Comment 9.14: NMFS should allow ropeless fishing in LMA 1.

Response: The LMA 1 Seasonal Restricted Area would be a buoy line closure rather than a fishery closure. Fishermen with an EFP for fishing without the use of persistent buoy lines would be able to fish within the seasonal restricted area from October to January.

Comment 9.15: NMFS should reconfigure the LMA1 restricted area so that it would be narrower and run the entire length of the Area 1 line, and should also be at least the same size—if not larger—on the Area 3 side of that line, too. This would spread the burden of the closure, and would benefit the whales according to the co-occurrence model. It would also reduce crowding at the area borders, and the accompanying gear conflicts and losses.

Response: This is a novel idea that could have been assessed if it had been received during scoping. Because this proposed seasonal restricted area was not analyzed in the DEIS, we are unable to implement it through final rulemaking at this time. The ALWTRT could consider this as an amendment during future discussions.

Comment 9.16: A number of commenters suggested that the LMA 1 restricted area was not supported by the acoustic data, either because acoustic gliders were not deployed at the right time of year, or because the acoustic data showed that only 27 percent of the right whale detections were inside LMA 1.

Response: The right whale habitat model (Duke Model Version 11) that the LMA 1 Restricted Area was based on projects a higher density of whales in this area throughout October to January. Like some commenters, given the lack of recent systematic surveys in this area, we were concerned that whales might not be using this area after they shifted distributions in the last decade. The glider data validated that right whales are still in LMA 1 during the season predicted by the Duke Whale Habitat Model (Version 11).

The commenter notes that only 27 percent of reported positions from deployed acoustic gliders were inside the LMA 1 Seasonal Restricted Area and season. The glider data supports the Duke whale habitat model (Version 11), which estimates higher whale densities on the LMA 3 side of the LMA boundary than the LMA 1 side. The glider data does, however, validate that whales are still in this area seasonally. Gear density on the LMA 3 side is much lower than on the LMA 1 side. We initially assessed a restricted area that included both sides of the boundary, but determined that there was minimal benefit from the LMA 3 side. LMA 3 vessels are adopting trawling up and weak line measures that provide greater risk reduction, so the restricted area does not include the LMA 3 side of the boundary.

During the comment period, we received information that we had underestimated the number of vessels that would be affected by the LMA 1 Restricted Area. In our revised analysis, we considered that in conjunction with the fact that there are only about 75 LMA 3-permitted vessels. LMA 3 vessels have higher rates of vessel trip reporting, which contributes to our estimates of gear distribution. However, because we also received anecdotal reports of higher gear densities on the LMA 3 side than our data indicate, we are investigating whether LMA 1 permitted vessels are inaccurately reporting location, or whether we are we are underestimating gear density and entanglement threat on the LMA 3 side.

We have modified our analysis of the value of the LMA 1 Seasonal Restricted Area in the FEIS. See Chapters 3 and 5.

Comment 9.17: NMFS should add restricted areas in LMA 3, as a huge majority of the boats there already fish

45 pot trawls or longer, and the proposed regulations will have little effect on reducing the risk posed by fishing in LMA 3.

Response: Alternative 3 analyzed restricted areas in offshore waters of LMA 3. The final rule does not implement restricted areas in LMA 3, and instead requires a combination of trawling up and weak rope requirements. Some areas originally considered for seasonal closures to buoy lines in LMA 3 were difficult to create without just shifting the risk (see co-occurrence maps in Chapter 5 of the FEIS). Broad line reduction and weak rope requirements achieved associated risk reduction without incidentally increasing co-occurrence with right whales within this area. Contrary to the comment, the average baseline gear configuration according to the line model in the DST is 35 traps per trawl, so requiring a minimum of 45 traps per trawl is predicted to reduce lines in this area. The new preferred alternative offers a conservation equivalency that would result in an average of 44 traps on a trawl, but with longer trawl lengths occurring in areas of high whale density, thus offering slightly greater risk reduction for LMA 3.

Comment 9.18: The Massachusetts Bay Restricted Area should be expanded.

Response: The final rule would expand the restricted area to include state waters to the Massachusetts/New Hampshire line, mirroring the regulations implemented by Massachusetts Division of Marine Fisheries in the Code of Massachusetts Regulations, Title 322 Section 12.

Comment 9.19: We ask NMFS to expand its proposed trigger of three right whales to extend the Massachusetts Bay Restricted Area to include a cow/calf as a trigger, in addition to three right whales.

Response: The final rule does not include a dynamic opening mechanism or trigger for the Massachusetts Bay Restricted Area.

Comment 9.20: Seasonal restricted areas should be re-evaluated as a management measure once the commercial fishery transitions to ropeless fishing systems.

Response: We anticipate that the ALWTRT will consider the appropriateness of existing and new seasonal management areas at meetings annually within the context of the best available information on large whale distribution, abundance, mortality, birth rates, and population metrics. Should ropeless fishing develop as an operationally feasible alternative to closures, that will also be evaluated.

Comment 9.21: What is the risk reduction value to other large whale species of the South Island restricted area?

Response: The South Island Restricted Area was designed to reduce co-occurrence and associated risk of entanglement to right whales and is not a hot spot for other species. For the FEIS, new analyses conducted by the NMFS Decision Support Tool team evaluated the amount of humpback and fin whale co-occurrence reduction in the expanded South Island Restricted Area. These analyses found that, though these species may occur within this area and indirectly benefit from a reduction in buoy lines, this buoy line closure does not measurably reduce co-occurrence and the associated overall entanglement risk for humpback whales or fin whales within the Northeast Trap/Pot Management Region.

Comment 9.22: NMFS should establish a larger restricted area south of Nantucket, which has become recognized as an important winter habitat for right whales.

Response: The final rule implements the larger South Island Restricted Area, which had been analyzed in Alternative 3 (Non-preferred) in the DEIS. See FEIS Chapter 3 for the South Island Restricted Area selected for implementation.

Comment 9.23: The South Island Restricted Area should be closed year-round, as NMFS has confirmed that the area south of the islands is a year-round habitat for the species.

Response: The monthly risk scores within the South Island Restricted Area are shown in the table below. The risk within this specific area is estimated to be very low between June and November. A year-round closure is not supported by this data. The closure is being implemented when the risk level and predicted whale density are the highest.

TABLE 6—SOUTH ISLAND RESTRICTED AREA MONTHLY RISK SCORES

Month	Default risk	Right whale habitat density
1	4.12	83.85
2	3.54	87.82
3	3.25	92.54
4	3.68	104.14
5	1.32	47.87
6	0.19	4.54
7	0.03	0.61
8	0.02	0.5
9	0.03	0.67
10	0.08	1.4
11	0.38	8.4
12	1.95	45.39

Comment 9.24: Because right whales use the South Island area year-round, NMFS should require only one buoy line between May and October to reduce risk of entanglement in this heavy offshore gear.

Response: The use of one buoy line on long trawls in areas of high mobile gear fishing effort would likely increase gear conflicts until technology becomes available that allows surface detection of bottom gear. Work on this challenge is currently being conducted to support the development of ropeless fishing methods, including a collaboration with mobile gear fishermen to assess bottom gear marking technology. These efforts could make this possible for future consideration as a risk reduction measure.

Comment 9.25: NMFS has drastically underestimated the amount of fishermen actively fishing in the LMA 1 restricted area, and thus the effects of the restricted area on fishermen. If there are only 45 fishermen in the LMA 1 restricted area, the risk reduction value of the closure should be much lower, since that would mean there aren't many buoy lines in that area.

Response: Based on the comments we received from Maine fishermen saying that we had underestimated the number of fishermen in LMA 1, we have modified our economic analysis of the impacts of the LMA 1 seasonal restricted area. Fishermen fishing in the fishing zones that are bisected by the LMA 1 restricted area are not all required to submit vessel trip reports, making a precise count of affected vessels difficult. Based on fishermen's input, the evaluation, which can be found in FEIS Section 6.3, now assumes that up to 50 percent of the vessels that fish outside of 12 nm in Maine Zones C, D, and E, up to 60 vessels, may have landings from the restricted area. The other half of the vessels may be crowded by the vessels that move from the restricted area into the waters 12 nm offshore of Maine Zones C, D, and E, reducing their catch rates. As a result, our estimate of vessels that may be affected by the LMA 1 Restricted Area has been increased to 120 in the FEIS. See FEIS Section 6.3.

Estimated buoy line numbers are only one component of the risk estimated for the LMA 1 Seasonal Restricted Area. Three factors are considered: Whale density, gear density, and threat of the configuration of gear used in an area. Those were sufficient to identify this area as a hotspot, as described further in FEIS Section 3.1.2.4.

Comment 9.26: If NMFS closes an area during the summer, the available

fishing window would be cut by 40 to 50 percent.

Response: There are no summer restricted areas in this final rule. For analysis of the restricted areas being implemented in this final rule, see FEIS Section 1.4.3.

Comment 9.27: NMFS should require that fishing vessels operate at less than 10 knots under EFPs in restricted areas, regardless of their vessel length.

Response: Vessel speed restrictions are likely to be included as a condition of EFPs for activities in seasonally restricted areas. Evidence suggests that 10 knot speed restrictions within areas of large whale occurrence have successfully mitigated vessel strikes (Laist *et al.* 2014). Fishing vessels actively fishing either operate at relatively slow speeds, drift, or remain idle when setting, soaking and hauling gear. Listed species in the path of a fishing vessel would be more likely to have time to move away before being struck. However, fishing vessels transiting to and from port or between fishing areas can travel at greater speeds and could strike a right whale or other vulnerable species. A 10-knot transit requirement for fishing vessels authorized to harvest lobster from seasonally restricted areas is merited as these areas are seasonally important to right whales.

Comment 9.28: Closures in offshore areas would also minimize the impact on fishermen, because the majority of lobster fishing occurs closer to shore.

Response: For an explanation for how seasonal restricted areas were selected, see FEIS Section 3.1.2.4 and for a description of the number vessels impacted and the economic impacts by seasonal restricted areas considered in the preferred and non-preferred alternatives, see FEIS Section 6.3.

10. Ropeless Technology

We received thousands of comments, including the majority of campaign comments, on ropeless fishing, with the vast majority of non-fishermen supporting an immediate transition to ropeless gear throughout the northeast lobster and Jonah crab trap/pot fishery, and the majority of fishermen opposing ropeless fishing on the grounds that it is expensive, unproven, and impractical for a variety of reasons. While ropeless technology is not required in the final rule, fishermen who wish to try ropeless fishing may apply for an EFP, and will be able to fish in the restricted areas to test the technology.

Comment 10.1: NMFS should promote the permitting process and make sure that all fishermen are aware of and have the opportunity to participate in EFP trials of ropeless gear.

Response: An EFP is a permit issued by NMFS' Greater Atlantic Regional Fisheries Office. EFPs authorize a vessel to conduct fishing activities that would otherwise be prohibited under the regulations at 50 CFR part 648 or part 697. Generally, EFPs are issued for activities in support of fisheries-related research, including landing undersized fish or fish in excess of a possession limit for research purposes, seafood product development and/or market research, compensation fishing, the collection of fish for public display, or in this case, testing various aspects of ropeless gear. Anyone that intends to engage in an activity that would be prohibited under these regulations (with the exception of scientific research on a scientific research vessel, and exempted educational activities) is required to obtain an EFP prior to commencing the activity. While NMFS believes that ropeless gear should be widely tested by vessels under varying operating conditions, researchers submitting the EFP requests will be responsible for soliciting and securing participants.

Comment 10.2: Many fishermen had questions and concerns about the feasibility of ropeless fishing. Fishermen were concerned about whether ropeless technology could work in areas subject to different tides, on different bottoms, and in different weather conditions. Others raised concerns about conflicts with bottom-tending mobile gear, conflicts with other ropeless traps/pot gear, a reported 80 percent retrieval rate, an increase in lost gear, which leads to ghost gear, and the need for a marking system. Still others were concerned that ropeless technology is not ready to be implemented, and would take too long to implement. Concerns about repairs, enforcement, expense, and safety hazards were also raised.

Response: We acknowledge that considering broad scale deployment of ropeless fishing requires additional planning and research to overcome obstacles to implementation. This would include many of the potential issues identified within these comments. However, technologies are developing to enable fishermen to increase the rate of successful retrieval of ropeless gear and to minimize gear conflicts and increase enforceability over time. NMFS has invested a substantial amount of funding in the industry's development of ropeless fishing gear. We anticipate that these efforts to facilitate and support the industry's development of ropeless gear will continue, pending appropriations, including cooperative research and field trials, economic analyses and cost projection, and policy implementation, among the many factors that require consideration and further study.

Comment 10.3: NMFS should offer buybacks or subsidies for fishermen unable to transition to ropeless gear.

Response: Section 312(b) of the MSA establishes the mechanism for NMFS to conduct a buyback or fishing capacity reduction program. It requires funding appropriations from Congress and a determination that the program is necessary to prevent or end overfishing, rebuild stocks of fish, or achieve measurable or significant improvements in the conservation and management of the fishery.

Comment 10.4: NMFS did not analyze the costs or effects of conflicts between ropeless gear and bottom-tending mobile gear, or the effects of ropeless-only fishing areas on mobile gear fisheries, some of which significantly overlap with prime scallop grounds.

Response: NMFS agrees that this would be useful information to analyze but was unable to provide a specific cost estimate in the FEIS. We have modified our discussion of the effects of gear conflicts associated with ropeless gear. See FEIS Section 3.3.3.

Comment 10.5: NMFS needs to invest in the technology to make it viable, which should include working with manufacturers to develop virtual gear marking systems and to tailor the devices to the needs of fishermen in different areas.

Response: NMFS has invested a substantial amount of funding in the collaborative development of ropeless fishing gear. Virtual gear marking systems are being tested by mobile and fixed gear fishermen and we anticipated that these efforts will continue, pending appropriations.

Comment 10.6: Ropeless gear regulations will be difficult to impossible to enforce.

Response: Currently ropeless fishing is conducted under EFPs or state authorizations to exempt fishermen from the fishery management regulations that require the use of buoy lines to notify mariners of the presence of fixed fishing gear. Conditions of authorization include notification of effort, monitoring and reporting. If a permittee does not abide by the terms of the permit, the permittee will be subject to enforcement action. As data is collected throughout the EFP process for ropeless gear, law enforcement has the opportunity to review that data. Lessons learned from ropeless testing will be incorporated into an enforcement strategy in the event that ropeless

technology is authorized for use in the fishery.

Comment 10.7: For ropeless fishing to work, we will need a new trap allocation system. There are too many traps in the water for ropeless to work.

Response: We recognize that feasibility in terms of both affordability and effective avoidance of gear conflicts will be most challenging in areas of dense fishing effort. A number of studies have demonstrated that effort reduction could be done without substantial economic impacts, see for example, Myers and Moore (2020) and Acheson (2013). Commenters including fishermen have suggested that a reduction in traps would provide fast and effective risk reduction. Less rope might ameliorate the need for further measures in some areas, and would reduce the cost of any future broadscale implementation of ropeless fishing.

Comment 10.8: NMFS received several comments on space-sharing to address potential gear conflicts associated with ropeless gear. One commenter suggested that NMFS should not require trap fishermen and mobile gear fishermen to undertake space-sharing negotiations themselves. The other commenter suggested the use of seasonal areas for different gear types.

Response: If broad adoption of ropeless fishing methods is considered and area management is deemed essential for success in preventing gear conflicts, NMFS anticipates that engagement and collaboration with the fishery management councils and commissions would be required to successfully design and implement any area-based management following fishery management public processes. This is well beyond the scope of what is being implemented by this rule.

Comment 10.9: NMFS should fast-track and simplify permitting to make ropeless fishing an easier option for fishermen.

Response: The provisions within this rule expand fishermen's options and provide incentives to fish with ropeless gear in an area otherwise restricted under the ALWTRP. The NMFS Greater Atlantic Region Fisheries Office is considering conducting an Environmental Assessment (EA) identifying and analyzing ropeless fishing under EFPs, including measures to minimize environmental impacts. The EA would facilitate development of EFP requests and reduce the need of the applicant for separate environmental analysis, expediting the EFP process substantially. The Northeast Fisheries Science Center has developed a ''gear library'' for collaborating fishermen to access ropeless gear and virtual gear marking technology. We expect to continue to learn about the feasibility of ropeless gear on a broader scale as more fishermen take advantage of the opportunity to try ropeless. If operational challenges including surface markings are overcome, NMFS would work with the Council to determine if fishery management regulations could be modified to not require buoy lines, allowing ropeless fishing without an EFP.

Comment 10.10: NMFS should develop a comprehensive roadmap for fishermen to permanently transition to ropeless gear so that they can continue to fish without endangering right whales. Relying on EFPs is not a long-term solution.

Response: NMFS is currently developing a ''Roadmap to Ropeless Fishing'' comprehensive plan to document the agency's approach to researching and testing ropeless gear. This plan will also include economic analyses and potential policy pathways of ropeless fishing, along with identifying partners and establishing short and long-term goals for ropeless research and development

Comment 10.11: For ropeless to work, there needs to be a single universal platform for all devices, so that all fishermen may see other's gear and locate their own.

Response: Ropeless gear and the technologies enabling it have evolved rapidly in recent years. If ropeless fishing continues to develop, other technologies platforms such as those to view the location of set ropeless gear and to prevent gear conflicts and facilitate law enforcement, will need to develop concurrently.

Comment 10.12: NMFS should establish additional ropeless restricted offshore areas, and require the offshore fishery to transition to ropeless gear within three years.

Response: We will continue to evaluate the latest population abundance, mortality and serious injury, and PBR estimates calculated for large whales to inform the risk reduction targets that we provide to the ALWTRT. As we work to reduce lethal entanglement risk as required by the MMPA, we will continue to convene the Team to analyze the latest data and to make recommendations to us as to how best to fulfill these goals.

Comment 10.13: Due to the high incidence of right whales in Cape Cod Bay from February to May, we recommend that NMFS not permit testing of ropeless fishing systems during these times.

Response: We recognize that in some areas at some times, like Cape Cod Bay in late winter/early spring, any additional risk to right whales (increased vessel traffic, etc.) may be unacceptable. These risks may be evaluated and avoided or mitigated on an individual basis as applicants seek EFPs for ropeless experimentation within ALWTRP restricted areas.

Comment 10.14: There is no way to implement ropeless in the gray zone, where Canadians are also setting their gear.

Response: The rule does not require ropeless fishing in the gray zone or anywhere else.

Comment 10.15: Ropeless fishing will still put thousands of end lines in the water column, but without tension on them, posing a greater risk for all marine mammals and boaters.

Response: Ropeless fishing as it is currently being tested would only result in buoy lines in the water column when a fishing vessel is on site to retrieve the trawl. While we agree that operationalization of a ropeless fishery will require much more planning and evaluation in the future, ropeless vertical lines would spend a significantly lower proportion of time in the water column than a traditional fixed vertical line with a surface buoy. This would significantly lower exposure to marine mammals and therefore significantly lower entanglement risk.

Comment 10.16: NMFS erred in asserting that ropeless gear should be considered ''neutral risk'' as sinking groundline may still pose a risk to large whales. While ropeless gear is not expected to be widely used in the immediate future, technology may advance to make it more feasible, and so NMFS should re-evaluate the risk posed by the gear.

Response: To date, evidence of sinking groundline in large whale entanglements is limited, though we continue to investigate as the scarce data and opportunities allow. The discussion in the FEIS was modified per comments about possible addition of risk in areas where none currently occurs in existing closed areas. The qualitative discussion of risk including anticipated conditions while ropeless fishing is developed is summarized in the FEIS Section 5.3.1.1.2.1.2.

11. Stressors on Right Whales

Dozens of commenters suggested a variety of factors that may be contributing to right whale decline, with many fishermen pointing to other known and possible causes of mortality. These commenters stated or suggested that this regulation will not contribute to the recovery of right whales due to issues beyond the scope of this

rulemaking. Among the issues raised are climate change, disease, pollution, inbreeding/small population size, previous entanglements, sonar, noise, oil spills, plastic pollution, shark predation on calves, vessel strikes, and offshore wind. The final rule and analyses in the FEIS are related to amendments to the Plan. The Plan and the take reduction process are restricted to monitoring and mitigating incidental mortality and serious injury of marine mammals incidental to particular U.S. commercial fisheries. The majority of these issues are outside the scope of this regulation, and many are beyond the authority of the NMFS but given the frequency with which these issues were introduced, we have provided some answers below.

Comment 11.1: Climate change/global warming is primarily to blame for the decline of right whales, and it has nothing to do with fishermen.

Response: The effects of climate change may have led to a shift in the distribution of right whales sometime between 2010 to 2013. This distribution shift increasingly brought right whales into areas of greater risk from human activities, including fishing. Entanglement in fishing gear is one of the primary causes of serious injury and mortality in right whales. See FEIS Section 1.1 for an overview.

Comment 11.2: Since the right whales have found their food sources in the Gulf of St. Lawrence, they are thriving again and this rulemaking is unnecessary.

Response: NMFS disagrees. Since the population started regularly using the Gulf of St. Lawrence, the population has declined by 23 percent overall, and roughly 200 right whales have died, many of them outside the Gulf of St. Lawrence. Threats to right whales are spread across their range in U.S. and Canadian waters.

The need to amend the ALWTRP is driven by the average reported mortality and serious injury to right whales due to fishery entanglement compared to PBR is 0.8 per year and, unfortunately, fishery entanglement-related mortality and serious injury is 5.55 whales per year (Hayes *et al.* 2020). Since fishery entanglement-induced mortality and serious injury exceeds PBR, this rule is necessary.

Comment 11.3: NMFS should consider the effects of disease and increased pollution on right whales.

Response: NMFS agrees. In NMFS' Species in the Spotlight North Atlantic right whale five-year action plan, one of the five priorities identified for the next five years to halt the decline of this species is to ''Investigate North Atlantic Right Whale Population Abundance, Status, Distribution and Health.'' NMFS also convened a 2019 Health Assessment Workshop to help evaluate current health information data, including associated data gaps, and identified appropriate available and needed tools and techniques for collecting standardized health data that can be used to understand health effects of environmental and human impacts, and inform fecundity and survivorship models to ultimately guide right whale recovery (Fauquier *et al.* 2020). The Species in the Spotlight North Atlantic right whale five-year action plan is available online at *www.fisheries.noaa.gov/resource/document/species-spotlight-priority-actions-2021-2025-north-atlantic-right-whale.* Please see Chapter 8 of the FEIS, which has a summary of Cumulative Effects.

Comment 11.4: Right whales are suffering from inbreeding, and will never be able to have a viable population again, so there is no point to these regulations.

Response: Small population sizes may carry some greater risk of inbreeding as a potential limiting factor to recovery, however, there is evidence that natural populations have mechanisms to reduce the loss of genetic diversity (Frasier *et al.* 2013). Additionally, the North Atlantic right whale population has continued to produce healthy whales despite the relative low level of genetic variability when compared to other large whales, a condition that has apparently been sustained since the 16th century (McLeod *et al.* 2009). Numerous mammalian species have recovered from much smaller population sizes than the North Atlantic Right whale population, including Northern Elephant seals and gray seals in New England. Many of the great whale populations were decimated by the end of commercial whaling and most have recovered. Despite being reduced to about 260 right whales alive in 1990, North Atlantic right whales were genetically sound enough to recover, albeit slowly due to persistent human impacts, until peaking at 481 individuals in 2010. After 2010, the change in habitat use that involved more regular excursion into areas where management protections were not in place. This resulted in increased human-caused mortality and additional stresses, including both environmental food limitations and increased non-lethal entanglement. Together these stressors are likely contributing to documented reduced caving rates. While inbreeding could play a negative role here, there is little evidence to support that theory. After accounting for human-caused mortality, the 1990–2010 calving rates and population growth rates were well within normal cetacean population demographic rate. The changes in those rates since 2010 may be driven by increased anthropogenic mortality and climate change.

Comment 11.5: After vessel strikes, industrial sonar and ocean noise are the greatest threats to right whales. Has there been any research on the effects of Naval use of sonar in training, and the effects of ocean noise generally, on the increase or decrease in entanglements?

Response: We are not aware of any studies evaluating the correlation between ocean noise and rates of entanglement in fishing gear. However, given that right whales are not detecting fishing gear acoustically, it would seem highly unlikely that ocean noise levels would directly affect or have any relationship to entanglement rates. Furthermore, while increases in ocean noise is of concern for the communication ability for right whales and many other species, these effects are generally ''sub-lethal,'' whereas entanglement in fishing gear can lead directly to serious injury and mortality.

Comment 11.6: Did the 2010 BP Deepwater Horizon oil spill in the Gulf of Mexico or a change in food source affect right whale birth rates?

Response: NMFS is not aware of any studies, data, or evidence that suggest right whales have been affected by the BP Deepwater Horizon oil spill. For information on factors that may affect birth rates, see Chapter 8 of the FEIS, which has a summary of Cumulative Effects.

Comment 11.7: NMFS should consider the environmental impact of the consumption of additional plastic products this rule will require.

Response: This rule is not likely to change the need for ropes or weak links made from plastic material. The final rule may temporarily increase the production of new inserts, which may have plastic components, but ultimately would decrease with the reduction of gear in the water. Please see Chapter 5 and for a description of indirect effects, the likelihood of ghost gear, and frequency of gear replacement, as well as Chapter 8 for our Cumulative Effects Analysis.

Comment 11.8: NMFS should consider the role of seismic testing in right whale population declines.

Response: Seismic survey operators for oil and gas exploration require permits from the Bureau of Ocean Energy Management (BOEM). As part of issuing these permits, BOEM consults with NMFS under Section 7 of the ESA

to ensure the proposed action (*i.e.,* the seismic surveys) does not jeopardize the continued existence of any ESA listed species, including North Atlantic right whales. Through this process, NMFS fully evaluates the potential impacts of seismic testing on the right whales (*e.g.,* Biological Opinion on the Bureau of Ocean Energy Management's Issuance of Five Oil and Gas Permits for Geological and Geophysical Seismic Surveys off the Atlantic Coast of the United States, and the NMFS' Issuance of Associated Incidental Harassment Authorizations at *https://repository.library.noaa.gov/view/noaa/19552*). Seismic surveys for other purposes such as those conducted by the National Science Foundation or the United States Geological Survey for research purposes also require the same type of consideration under Section 7 of the ESA (*e.g.,* Biological Opinion on a National Science Foundation-funded seismic survey by the Scripps Institution of Oceanography in the South Atlantic Ocean, and Issuance of an Incidental Harassment Authorization pursuant to section 101(a)(5)(D) of the Marine Mammal Protection Act by the Permits and Conservation Division, National Marine Fisheries Service at *https://repository.library.noaa.gov/view/noaa/22585*). Finally, any take of marine mammals that is likely to occur as a result of these seismic surveys requires authorization under the MMPA (*e.g.,* Incidental Take Authorization: Oil and Gas Industry Geophysical Survey Activity in the Atlantic Ocean at *https://www.fisheries.noaa.gov/action/incidental-take-authorization-oil-and-gas-industry-geophysical-survey-activity-atlantic*), and as part of this authorization, NMFS also analyzes impacts to marine mammal population stocks, including right whales.

Under both the MMPA and ESA, in authorizing take of marine mammals including right whales, NMFS requires mitigation and monitoring as well as terms and conditions to monitor and reduce the impacts from such take. However, it is important to note that there is no concrete evidence that seismic surveys are likely to have any population level effects on large baleen whales such as right whales. Furthermore, the impacts of seismic surveys on the vital rates (*e.g.,* survival, reproduction, growth) of individual baleen whales are not well understood, but current evidence does not support that they cause serious injury, mortality, or lower reproduction. Finally, at present, and in the recent past, there is very little seismic survey activity in the U.S. Atlantic Ocean other than infrequent surveys conducted for scientific research purposes that typically use lower source level (*i.e.,* quieter) airguns as compared to the louder oil and gas exploration surveys such as those in the Gulf of Mexico.

In summary, NMFS does evaluate impacts from seismic surveys on right whales and while there have been and currently are few surveys being conducted, through the MMPA and ESA ensures that such surveys are not furthering the decline of the population.

Comment 11.9: Many commenters voiced their concern that recent right whale mortalities and serious injuries were due to vessel strikes, and suggested that vessels should be a higher priority for NMFS than reducing entanglements in fishing gear. Several commenters pointed out that more right whale calves were born this year, a year in which the cruise ship industry was largely shut down due to the global pandemic, than in any recent years. Others raised concerns about mortalities and serious injuries caused by Naval, whale watch and shipping industry vessels. Many commenters favored expediting updated regulations on vessel speeds, including in shipping lanes.

Response: Right whales are particularly vulnerable to vessel strikes due to their use of coastal habitats and frequent occurrence at near surface depths. Furthermore, they are vulnerable to strikes by nearly all types and sizes of vessels operating within the whales' range. In 2008 (73 FR 60173, October 10, 2008), NMFS implemented regulations requiring most vessels equal to or greater than 65 feet in length to transit at speeds of 10 knots or less in designated Seasonal Management Areas (SMAs) along the U.S. East Coast. Concurrently, NMFS initiated a voluntary Dynamic Management Area (DMA) speed reduction program to provide additional protection for aggregations of right whales outside of active SMAs. To reduce the spatial/temporal overlap of whales and vessel traffic NMFS established recommended routes for vessels transiting Cape Cod Bay and into/out of ports in northern Florida and Georgia, and modified the shipping lane approaching the port of Boston.

In January 2021, NMFS released an assessment evaluating the conservation value and economic and navigational safety impacts of the speed rule (50 CFR 224.105). While the assessment is considered final, we sought comments on the report findings through March 26, 2021, as we evaluate the need for future action and modifications to the existing speed regulations.

The report evaluates four aspects of the right whale vessel speed rule: Biological efficacy, mariner compliance, impacts to navigational safety, and economic cost to mariners. It also assesses general trends in vessel traffic characteristics within SMAs over time, provides a detailed assessment of the speed rule's effectiveness and offers recommendations for strengthening the rule based on these findings. In addition to the assessment of the vessel speed rule, the report also evaluates mariner cooperation with the DMA program and investigates small vessel transit patterns through active SMAs.

NMFS is evaluating whether further efforts are needed to minimize the spatial overlap of right whales and vessel traffic. Reducing the speed of vessels transiting through right whale habitat remains the most viable option to reduce vessel strikes in U.S. waters. The review and information collected during public comment will be used to consider whether current measures are appropriate given recent shifts in right whale distribution. For more information, please see Chapter 8 of the FEIS, which has a summary of Cumulative Effects.

Comment 11.10: Many fishermen commented that they feared offshore wind energy projects would displace them, and questioned NMFS' role in permitting offshore wind energy projects.

Response: BOEM is the lead Federal agency and primary decision-maker for offshore wind development projects. NOAA works with BOEM and offshore wind developers to provide information and consultation on how offshore wind projects may affect endangered or threatened species, marine mammals, fisheries, marine habitats, and fishing communities. Each proposed project is evaluated individually, with opportunities for public input, which can be found on the BOEM website. NOAA's engagement on offshore wind activities is limited to our authorities under the NEPA, the ESA, the MMPA, and the MSA. Further information on NOAA's role in offshore wind development can be found on our website at *fisheries.noaa.gov/new-england-mid-atlantic/science-data/offshore-wind-energy-development-new-england-mid-atlantic-waters.*

12. Trawls

Many of the campaign commenters as well as 38 of the unique commenters supported trawling up as a way to reduce the number of vertical lines in the water, while 52 unique commenters disagreed, saying that trawling up is may instead result in more severe

entanglements and more danger to fishermen. Comments from NGOs and members of the public indicated concern about whether heavier trawl lines would increase the severity of entanglements. Fishermen voiced concerns about the specifics of trawling up requirements in particular areas. Several fishermen supported the option of splitting buoy lines, and having only one line on a trawl. Some fishermen were concerned that trawling up would have an impact on landings.

Comment 12.1: A 50 percent vertical buoy line reduction mandate would harm smaller vessels and lead to consolidation of the fishery.

Response: A 50 percent vertical line reduction is a measure in the non-preferred alternative, and is not be implemented under this final rule. See FEIS Chapter 2 for more details.

Comment 12.2: Trawling up is expensive, and will put some fishermen out of business.

Response: The final rule provides conservation equivalencies to provide more flexibility to fishermen. We expect these options to help fishermen choose the options that minimize their economic impacts. We understood from Maine DMR that the trawling up configurations developed through collaborations with Zone Councils were selected because fishermen could do them with minimal investment in time or new gear relative.

Comment 12.3: What will the effects of trawling up be on landings?

Response: The effects will depend on several factors, including the increase in the number of traps per trawl. For vessels trawling up fewer than 2 traps per set, we would expect to see a reduction rate of 0–5 percent on landings. For vessels trawling up 2 or more traps per set, we expect the landing reduction rate to be 5–10 percent. See FEIS Chapter 6 for more details including a summary of the limited previous investigations into the impacts of trawling up on catch rates.

Comment 12.4: NMFS should allow different trawls lengths depending on vessel sizes, vessel configurations (open/closed transom or equipment placement), distance from shore, and fishing depth. Several specific requests were submitted, such as four traps per trawl measure in New Hampshire waters, one buoy line along the northern edge of Georges Bank, and triples in the ''sliver'' area.

Response: The final rule establishes varying trawl lengths (traps per trawl), primarily by distance from shore. These are based on measures proposed by the ALWTRT, states, conservation equivalencies requested, and comments received during scoping and rulemaking. Configurations by distance from shore were considered likely to parallel vessel sizes, with smaller vessels operating closer to shore. Trawling up requirements by vessel size or configuration would be difficult to implement, enforce, and evaluate.

Comment 12.5: NMFS should exempt waters from 50 fathoms (91 m) and deeper along the continental slope from trawling up.

Response: The final rule implements a less restrictive trawling up requirement for vessels fishing in waters deeper than the 50 fathom curve south of Georges Bank (35 traps per trawl) than was initially proposed (45 traps/trawl) in response to conservation equivalency requests from the Atlantic Offshore Lobster Fishermen's Association. There is no information to suggest that right whales and other large whales are not entangled in waters deeper than 50 fathoms therefore an exemption from trawling up requirements without a concurrent line or risk reduction alternative would not provide sufficient risk reduction.

Comment 12.6: NMFS should consider the 3 mile zones around Matinicus and Ragged Islands to be the same as other Maine coastal areas, and regulate them as such.

Response: As noted below in this rule, there is an island buffer for this fishing in waters within ¼ nautical miles of the following Maine islands are exempt from the minimum number of traps per trawl requirement in paragraph (c)(2)(iv) of this section: Monhegan Island, Matinicus Island Group (Metinic Island, Small Green Island, Large Green Island, Seal Island, Wooden Ball Island, Matinicus Island, Ragged Island), and Isles of Shoals Island Group (Duck Island, Appledore Island, Cedar Island, Smuttynose Island).

Comment 12.6: The problem with using only one buoy line is that other fishermen won't be able to tell where my gear is, more catch-downs, and losing the ability to haul in a certain direction because of the wind.

Response: Area-specific allowances of up to ten traps per trawl with one buoy line was requested by Maine DMR, after discussion with the Zone Councils, as a conservation equivalency that would allow fishermen to fish shorter trawls while still reducing the number of buoy lines. Because this change is restricted to Maine Zones at the request of Zone Councils, it may reflect vessel capacity and current fishing practices. However, as occurs whenever measures are modified, there will be a transition period as fishermen adjust to new measures that the fishing community will likely work out relative to issues of gear placement and safety.

Comment 12.7: Trawling up increases chances of gear conflicts due to longer lines.

Response: The impact of minimum trawl length requirements on gear loss in trap/pot fisheries is difficult to predict with confidence. The uncertainty is largely attributable to the array of underlying factors responsible for gear loss. 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. This could be exacerbated by the Maine conservation equivalencies which will allow fishermen in some Maine Lobster Zones to fish trawls of up to 10 traps with only one buoy line. Overlain gear can cause one party to inadvertently sever another's lines, making it impossible to retrieve all or some of the gear. A longer trawl also increases the consequences of such incidents; *i.e.,* the more gear on a single trawl, the more gear is lost when that trawl is rendered irretrievable.

In other ways, trawling requirements may reduce the potential for gear loss. The fundamental objective of longer trawls is to limit the number of buoy lines in the water column and reduce encounters with large whales; such encounters are one possible source of gear loss. Likewise, a decrease in the number of buoy lines may reduce the frequency with which gear is entangled in vessel propellers or mobile fishing gear. Furthermore, in areas where trawling up requirements necessitate addition of a second buoy line (*e.g.,* for configurations greater than 20 traps or a vessel going from triples to ten-trap trawls), the second buoy line may make it easier to locate and retrieve gear when one buoy line is lost. Longer trawls are also heavier and may be less likely to be swept away during extreme storm or tidal events. For more, see FEIS Section 6.2.6.1.

Comment 12.8: NMFS should not leave it to fishermen to develop agreements between large and small boats to set trawl lengths that would meet an overall goal of line reduction, as this would be difficult to evaluate and enforce.

Response: Agreed. The final rule does not implement any regulations based on boat length or size.

Comment 12.9: Trawling up leads to longer, heavier lines that pose a greater risk to right whales, causing worse and heavier entanglements.

Response: While we recognize that the trawls will be longer, for many of the configurations, the portion of the trawl hanging in the water column and putting force on the hauling rope is based on water depth and distance between traps rather than wholly on trawl length and the configuration changes may not substantially change that. Many of the configurations adapted were proposed by fishermen during scoping and were proposed because they can be fished using existing rope and do not require a turnover in buoy lines currently being fished. Finally, every buoy line will be fished with weak insertions or weak rope. In a 2016 study, Knowlton *et al.* showed evidence that 1,700 lb weak links within buoy lines or 1,700 lb weak line will allow whales to part the gear and reduce the likelihood of serious injury. Trawling up reduces the chance of an entanglement as fewer buoy lines will be present in the water column. The combination of these two measures will reduce the threat of mortality and serious injury of entanglement for large whales.

Comment 12.10: Many fishermen voiced safety concerns about trawling up, including not having enough room on their vessel for 45 traps, that the increased weight of the vessel could lead to greater danger of capsizing in bad weather, and that longer lines may injure and entangle the crew.

Response: Throughout the development of the final rule, we have taken safety considerations into account in identifying alternatives. Several proposed measures were rejected in whole or in part due to safety concerns. See Table 3.4. Conservation equivalencies adopted in the final rule better accommodate small scale fishing operations and traditional practices, considers fishing safety concerns, and requires less costly gear modifications.

Comment 12.11: NMFS should require all trap/pot vessels be rigged for trawl nets or aluminum beam trawl type equipment, and cease to allow trap/pot gear with buoy lines.

Response: NMFS does not have the authority under either the ACA or MSA to unilaterally require trawl gear in all fisheries. The ACA directs the Federal government to support the management efforts of the Commission and, to the extent the Federal government seeks to regulate a Commission species, develop regulations that are compatible with the Commission's Interstate Fishery Management Plan and consistent with the MSA's National Standards. The Commission's Interstate Fishery Management Plans for lobster and Jonah crab specifically contemplate the use of trap/pot gear. NMFS would not have the authority to implement a requirement to prohibit trap/pot gear and require trawl gear without such a measure being incorporated into the Interstate Fishery Management Plan and recommended by the Commission. Similarly, the MSA charged regional fishery management councils with developing fishery management plans that meet the requirements of the Act. Under the MSA, the Secretary shall approve, disapprove, or partially approve a plan or management action developed by the Councils. Unless and until the Mid-Atlantic and New England fishery management councils modify gear requirements for their fishery management plans, NMFS is not authorized to take action under the MSA.

Comment 12.12: NMFS should focus on keeping tension in buoy lines and reducing length between surface buoys to 3–4 feet (0.91–1.2 m) to reduce entanglements of all marine mammals.

Response: Documentation from entanglements indicates that buoy lines and unknown lines represent the majority of interactions. Surface system direct interactions are rarely documented.

Current industry practice and the ALWTRP already requires the use of sinking line on the top of buoy lines to reduce floating line at the surface. Under many conditions, fishermen also minimize scope in their buoy lines to prevent the lines from interacting with nearby set gear, although in areas of high tidal range and currents, more scope may be needed.

The final rule reduces the possibility of entanglements by using a combination of closed areas, trawling up (less buoy lines in water column), weak line, weak insertions, and weak contrivances.

13. Weak Rope/Links/Inserts

More than 71 of the unique commenters supported the use of some form of weak rope to reduce the severity of right whale entanglements in fishing gear, while thousands of campaign comments and 144 unique commenters noted that weak rope may not reduce entanglement events and may still have detrimental effects on juveniles and calves, as well as cause sublethal effects to adults. Many fishermen are concerned that weak rope will result in gear loss, which will result in economic losses to them and increase the amount of ghost gear, which poses an entanglement risk to right whales.

Comment 13.1: Many commenters had questions or concerns about weak link locations, configurations, and surface systems.

Response: We received dozens of comments questioning the reasons for locations of the weak links/inserts, suggestions for other configurations of weak points, and the effectiveness of weak links/inserts, particularly the 600 lb (272 kg) weak link, in reducing right whale entanglements. We also received dozens of suggestions for different options for weak links/inserts, including but not limited to, knots, time tension line cutters, loops and tucks, eye splices with sheep bends, and Novabraids. We received several suggestions regarding surface systems, with some commenters suggesting that they be eliminated, others wanting to keep them, and some asking for evidence that they are effective at reducing entanglement.

For reasons specified in FEIS Section 3.3.3, we removed the requirement for lobster and Jonah crab fishermen to connect their buoy to the buoy line using a weak link because the new measures require using weak rope or weak insertions in the buoy line. For our evaluation of surface system weak links, please see FEIS Section 3.3.3.1.

Comment 13.2: Many commenters had questions or concerns about safety and economic loss related to weak inserts, link, or rope. Fishermen were particularly concerned that weak rope and weak inserts may result in injuries to fishermen and economic impacts due to lost gear.

Response: Forces on lines hauling up lobster trawls were measured during commercial operations. Forces greater than 1,700 lb (771.1 kg) breaking strength were required to retrieve gear, particularly for trawls of 35 traps and more in waters greater than 50 fathoms (91.4 m) (Maine DMR 2020). Timed haul data indicated those higher forces were not detected on the line until well past halfway through hauling the buoy line (for example, Figure 7 in Maine proposal, Appendix 3.2). This suggests that under most operational conditions, weak rope or a weak insertion within the top half of a buoy line would not be subjected to forces approaching or greater than 1,700 lb (771.1 kg) during a haul. This is consistent with modeling work conducted by Knowlton *et al.* (2018) who demonstrated that operational changes in fishing practices to minimize speed and the amount of gear in the water column would further minimize rope tensions. In field work conducted by Knowlton *et al.* (2018), gear loss for buoy ropes using Novabraid sleeves inserted every 40 feet throughout the buoy lines fished in waters from 42 to 310 feet (12.8 to 94.5 m) was not significantly different than

gear loss using standard buoy lines. The final rule does not require the configuration studied by Knowlton *et al.* (2018), and while that means that the final configurations do not get the level of risk reduction that would be achieved through their experimental configuration, the measures reduce the likelihood that weak insertions will occur where forces may exceed the breaking strength of the rope. That compromise is intended to minimize safety risks to fishermen and economic impacts of increased gear loss. For more, see FEIS Section 3.3.3.2.

Comment 13.3: Many commenters had questions or concerns about the effects of weak inserts and weak rope on right whales.

Response: Conservationists voiced concerns that weak rope wouldn't reduce the risk of entanglement, and would still cause sublethal effects to adults, and could cause lethal effects to juveniles and calves. There were also suggestions that weak rope will hamper disentanglement teams and could result in more right whale mortalities and serious injuries. Some commenters questioned our analysis of the spacing, particularly concerning why we elected to use weak insertions every 40 feet as equivalent to weak rope.

We evaluated weak line relative to the findings of Knowlton *et al.* (2016), which documented that no ropes retrieved from entangled right whales of all ages had breaking strengths that were below 7.56 kN (1,700 lb). Knowlton *et al.* (2016) suggest that right whales can break free from these weaker ropes before a serious injury occurs. This is consistent with estimates of the force that large whales are capable of applying, based on axial locomotor muscle morphology study conducted by Arthur *et al.* (2015). The authors suggested that the maximum force output for a large right whale is likely sufficient to break line at that breaking strength. That study and others recognized that a whale's ability to break free from an entanglement is also somewhat dependent on the complexity of the entanglement configuration (van der Hoop *et al.* 2017).

The research available suggests that a full-length weak line provides the maximum precautionary benefit to whales (Knowlton *et al.* 2016, DeCew *et al.* 2017). However, when full weak rope is not readily available or when replacement of an entire buoy line is not feasible, weak links are also effective at reducing breaking strength. To evaluate the risk reduction benefit of weak rope alternatives, we compared the relative risk reduction achieved from a rope with one or two weak inserts at particular buoy line depths to a rope with inserts at regular intervals of 40 feet. We selected 40 foot intervals based on the work of Knowlton *et al.* (2016 and 2018) which was selected because it was within the range of a right whale's girth and length, is within the range of rope length typically removed from entangled whales and was the configuration discussed most directly by the Team when considering weak rope. Spacing of every 40 feet provides the greatest benefit to whales, since entanglements can be very complex, and inserts every 40 feet provide the greatest likelihood that at least one weak point will be present on an entangled whale, allowing it to break the rope. Weak line models suggest that weak points will not necessarily benefit a whale that encounters the rope below the weak point, particularly with a heavy trawl. The lower the lowest weak insertions, the higher the potential for the rope to part (DeCew *et al* 2017). See Chapter 3 for a more detailed description of the calculations of the proportional risk reduction estimated for inserts that were not at regular intervals, and how we determined the measures included in the final rule.

We agree that there may be added or reduced risk reduction to whales depending on how weak insertions are configured. The greater the number of weak points on a line, the greater the likelihood that a weak point will be located below where the whale encounters the line, and that there will be a weak insertion outside of the mouth where the whale may have a better chance of breaking free from the entanglement. Configurations that are knot-free may also pose less risk. Gear that is knot-free, and/or free of attachments may be less likely to get caught in baleen if a mouth entanglement occurs, more likely to slide through the whale's baleen without becoming lodged in the mouth or elsewhere, decreasing the risk of serious injury or mortality. However there is evidence that splices and knots introduce weaknesses into buoy lines. Lines undergoing breaking strength testing broke on the smaller or weaker side of a knot or splice (Maine DMR 2020).

We evaluate risk reduction under the assumption that weak rope is not zero risk to whales and that few insertions do not provide the risk reduction benefits of fully weak rope or weak rope with insertions every 40 feet. However, in concert with the other measures in the final rule, NMFS believes that it will achieve the required levels of risk reduction and applies a precautionary measure across the Northeast Region. For more on our analysis, see FEIS Section 3.3.4 and Appendix 3.1.

Comment 13.4: Commenters indicated current buoy weak link requirements should be rescinded. Reasons included: To retain buoy to increase our ability to identify fishery and location of incidents, so buoy drag in concert with weak rope or weak inserts in buoy line can pull parted gear free from whales, to improve visibility to disentanglement teams.

Response: The final rule rescinds buoy weak link requirements for Northeast Region lobster and Jonah crab buoy lines that require weak rope or weak inserts in the buoy line. See Chapter 3 of the FEIS for a discussion of this modification.

Comment 13.5: The weak rope equipment suggested as an alternative in the Proposed Rule has not been proven to effectively reduce harm to right whales. In fact, many fishermen have stated that they will use more rope if the weak rope requirement is implemented, overall increasing the likelihood of entanglements.

Response: For LMA 1 fishermen, the weak rope/weak insertion measures were proposed by Maine DMR after extensive outreach with Maine fishermen. The insertion locations are informed by research done by Maine DMR measuring at what point the forces on rope when trawls are hauled in exceed 1,700 lb (771.1 kg). Insertion locations were selected for placement in the buoy line above that point. Fishermen indicated a preference for a solution that would not require them to purchase additional rope, suggesting that most fishermen do not anticipate purchasing more rope other than the short lengths needed to create weak insertions, adding only a three to six feet to the amount of buoy line already fished.

See FEIS Section 3.3.42, Knowlton *et al.* (2016) and Arthur *et al.* (2015) for evidence indicating large whales including right whales can break free of rope with breaking strengths below 1700 lb, reducing opportunity for serious injury and mortality.

14. Outside Scope

As noted above, we received dozens of comments that were outside the scope of the current rulemaking. The final rule and analyses in the FEIS are related to amendments to the Plan. The Plan and the take reduction process are restricted to the monitoring and management of incidental mortality and serious injury of marine mammals in U.S. commercial fisheries. Because these comments were out of the scope of the final rule and the FEIS, we did

not provide responses in this document. A list of the out of scope comments appears below.

1. NMFS or the states should institute a lobster and crab tax or other funding mechanism to make up for the economic deficit caused by the regulations.

2. The Economic Impact Analysis produced by Nathan Associates incorrectly states that the Casco Bay Lines ferry to Long Island has 24 daily runs year round, casting doubt on NMFS' entire economic analysis.

3. We are concerned that the Agency's broad assumptions may unnecessarily alarm industry members and their families.

4. NMFS should monitor the travel routes of whales and enforce all regulations that might impact whales, such as ocean dumping.

5. NMFS and states should work with manufacturers to produce ropes in a single color to match state requirements, which would reduce the difficulty of maintaining marks at the designated increments for fishermen moving to different depths.

6. NMFS should use emergency action to close all high seas transport to allow right whales to recover.

7. NMFS should not issue incidental take permits for right whales under the ESA.

8. Several commenters submitted recommendations on gillnet and other mobile gear configurations, which are not the subject of this rule, but may be considered by the ALWTRT in the future.

9. Expand and strengthen response networks comprising researchers, environmental organizations, industry groups and stakeholders, and government decision-makers to help manage the crisis and start rebuilding the population.

10. The percentage of vertical lines proposed to be reduced (60 percent up to 98 percent) in the Biological Opinion was not derived based on any scientific findings.

11. NMFS should study the effects of the rebounding white shark populations on the survival of right whale calves.

Classification

NMFS issues this final rule to amend the regulations implementing the Atlantic Large Whale Take Reduction Plan (Plan, ALWTRP). This rule revises the management measures for reducing the incidental mortality and serious injury to the North Atlantic right whale (*Eubalaena glacialis*), as well as to humpback (*Megaptera novaeangliae*) and fin whales (*Balaenoptera physalus*) in commercial trap/pot fisheries in the Northeast Trap/Pot Management Area (Northeast Region). The NMFS Assistant Administrator has determined that this rule is consistent with the Plan and the provisions of the MMPA, as well as the goals of the ESA, the Atlantic Coastal Fisheries Cooperative Management Act (ACFCMA), and other applicable law.

NMFS prepared an FEIS for this rule. The Notice of Availability published in the **Federal Register** on July 2, 2021 (86 FR 35286). Three alternatives, consisting of a ''No Action'' or status quo alternative (Alternative 1), one Preferred Alternative (Alternative 2) that is implemented by this rule, and one additional alternative (Alternative 3 or Non-preferred Alternative), were analyzed using the NMFS Decision Support Tool, described in detail in Chapter 5 of the FEIS. The biological impact analysis uses both quantitative (produced by the NMFS Decision Support Tool) and qualitative indicators to compare the regulatory alternatives against the 2017 conditions. Impacts on all large whales are analyzed, but the intention of this rulemaking is a 60 to 80 percent risk reduction for right whales to reduce incidental entanglement mortality and serious injury to below the potential biological removal level of 0.8 mortalities and serious injuries a year. The analyses estimate percent reduction in the number of vertical buoy lines and reduction in co-occurrence between whales and buoy lines as proxies for reduced likelihood of encounter and entanglement. Mean line strength, and change in strength and associated gear threat of rope in buoy lines that are weakened, are estimated toward reduction of the likelihood of a serious injury or mortality in the event of an entanglement. The biological analysis estimates the risk reduction contributions of the measures that would require Plan modifications, as well as of ongoing risk reduction measures implemented by states and previous or imminent fishery management rules that reduce effort in the lobster fishery. Note that the economic analysis considers only the costs of the measures that would be implemented through the Federal rulemaking to amend the Plan.

The ''No Action'' alternative (Alternative 1) would result in no changes to the current measures under the Plan. The rate of right whale mortality and serious injuries caused by incidental entanglement in U.S. commercial fisheries would continue to greatly exceed PBR. There would be no additional economic effects on the fishing industry.

Alternative 2, the Preferred Alternative, is implemented in this final rule. It reduces the number of buoy lines fished in the Northeast Region lobster and Jonah trap/pot crab fisheries by increasing the minimum number of traps per trawl based on area fished and miles fished from shore in the Northeast Region. This alternative modifies existing restricted areas from seasonal fishing closures to seasonal closures to fishing with persistent buoy lines, expands the geographic extent of the Massachusetts Restricted Area (MRA) to include Massachusetts state waters north to the New Hampshire border, and establishes two new restricted areas that are seasonally closed to fishing for lobster or Jonah crab with persistent buoy lines. Alternative 2 requires buoy lines to be modified to incorporate rope engineered to break at no more than 1,700 lb (771.1 kg) or weak insertion configurations that break at no more than 1,700 lb (771.1 kg). Finally, the rule requires additional marks on buoy lines to differentiate vertical buoy lines by principal port state, includes unique marks for Federal waters, and expands into areas previously exempt from gear marking.

The Decision Support Tool estimates that Alternative 2 and this rule achieves a 69- to 73-percent risk reduction when the value of the current MRA is included, and a 60-percent risk reduction without the value of the current MRA. This risk reduction is achieved by an estimated seven percent reduction in the number of buoy lines that would be fished in the Northeast Region American lobster and Jonah crab fisheries, a 65-percent reduction in right whale and buoy line co-occurrence (54 percent without including the value of the current MRA), and a weakening of each buoy rope in these fisheries for a nine percent reduction in mean line strength and a 17-percent reduction in gear threat. The first-year costs under Alternative 2 range from $9.8 million to $19.2 million, depending on implementation assumptions (*e.g.,* buoy lines relocated versus buoy lines removed in seasonal restricted areas).

Alternative 3, the Non-preferred Alternative, would reduce the number of buoy lines in Federal waters through the implementation of a buoy line cap allocated at 50 percent of the buoy lines fished in 2017. Like Alternative 2, this alternative would modify existing restricted areas (except the Outer Cape Cod LMA, which is closed for lobster management purposes) from seasonal fishing closures to seasonal closures to fishing with persistent buoy lines. Alternative Three would expand the geographic extent of the MRA to include Massachusetts state waters north to the New Hampshire border and extend the

MRA closure season to include May, with a soft opening if surveys show that whales have left the area. Three new seasonal restricted areas would be established, including an LMA 1 seasonal restricted area with the same boundaries as in the preferred alternative but with a one month extension, a seasonal restricted area in LMA 3 north of Georges Bank, and a South Island Restricted Area smaller than the one in the Preferred Alternative but extended through May. Finally, Alternative 3 would require a large visible mark on the surface system of each buoy line that would incorporate a tape that identifies the permit holder's state and fishery.

The Decision Support Tool estimates that Alternative 3 achieves a 72-percent risk reduction. This risk reduction is achieved by an estimated seven percent reduction in the number of buoy lines that would be fished in the Northeast Region American lobster and Jonah crab trap/pot fisheries, a 60-percent reduction in right whale and buoy line co-occurrence, and a weakening of each buoy rope in these fisheries for a 19-percent reduction in mean line strength and a 29-percent reduction in gear threat. The first-year costs under Alternative 3 range from $32.8 million to $44.6 million, depending on implementation assumptions (buoy lines relocated vs. buoy lines removed).

On August/September XX, 2021, NMFS issued a Record of Decision identifying the selected alternative. A copy of the Record of Decision is available from NMFS (see **ADDRESSES**).

This rule has been determined significant for the purposes of Executive Order 12866.

The Regulatory Flexibility Act (RFA), 5 U.S.C. 601–612, requires agencies to assess the economic impacts of their proposed regulations on small entities. The objective of the RFA is to consider the impacts of a rulemaking on small entities, and the capacity of those affected by regulations to bear the direct and indirect costs of regulation. We prepared a final regulatory flexibility analysis (FRFA) in support of this action, as required by section 604 of the RFA. The FRFA consists of the initial regulatory flexibility analysis (IRFA), a statement of the need for, and objectives of, the rule; a summary of the significant issues raised by the public comments in response to the IRFA, a statement of the assessment of the agency of such issues, and a statement of any changes made to the rule as a result of such comments; the response of the agency to any comments filed by the Chief Counsel for Advocacy of the Small Business Administration in response to the proposed rule, if any (none were received), and a detailed statement of any change made to the proposed rule in the final rule as a result of the comments; a description of and an estimate of the number of small entities to which the rule will apply or an explanation of why no such estimate is available; a description of the projected reporting, recordkeeping and other compliance requirements of the rule, including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for preparation of the report or record; a description of the steps the agency has taken to minimize the significant economic impact on small entities consistent with the stated objectives of applicable statutes, including a statement of the factual, policy, and legal reasons for selecting the alternative adopted in the final rule and why each one of the other significant alternatives to the rule considered by the agency which affect the impact on small entities was rejected; a description of the steps the agency has taken to minimize any additional cost of credit for small entities, and; the agency shall make copies of the final regulatory flexibility analysis available to members of the public and shall publish in the **Federal Register** such analysis or a summary thereof.

All of the documents that constitute the FRFA and a copy of the EIS/RIR/FRFA are available upon request (see **ADDRESSES**) or via the internet at: *Fisheries.NOAA.gov/ALWTRP.* Information in the sections above (Background, Comments and Responses, and Changes From the Proposed Rule) summarize information found in the FRFA and will not be repeated here. Additional summary information from the FRFA follows.

A Summary of the Significant Issues Raised by the Public in Response to the IRFA, a Summary of the Agency's Assessment of Such Issues, and a Statement of Any Changes Made in the Final Rule as a Result of Such Comments

After publication of the proposed rule and DEIS, we received over 1,300 unique submissions and many submissions generated by non-governmental organization campaigns including some submissions with multiple signatures representing over 200,000 people. Three hundred and thirty six unique commenters identified themselves as fishermen, either directly or through context, of which 312 voiced opposition to all or part of the rule, 19 commented on particular provisions, but did not expressly support or oppose, and 5 supported the general idea of the rule, though had specific comments on some measures. Of the ten fishing industry groups, eight opposed all or part of the rule, one gave specific recommendations, but did expressly support or oppose, and one supported the general idea of the rule. State and Federal legislators also commented, including some that opposed the rule or some provisions of the rule. Fifty four unique commenters that identified themselves as members of the public expressed opposition to the rule. A small number suggested that this rule should be withdrawn because it does not provide adequate levels of protection for right whales, and NMFS should start over. A little over 34 percent of commenters opposed the rule in whole or in part, and about 4 percent suggested that the rule should be withdrawn because it does not provide adequate levels of protection for right whales, and NMFS should start over.

Many commenters were concerned that these regulations would have a negative impact on the personal economics of fishermen, as well as the economies of their communities, their counties, and their state. Many commenters from Maine opposed the LMA 1 Seasonal Restricted Area due to economic impacts on their fishing operations, and recommended that if we did implement a seasonal closure to buoy lines there, we should establish a trigger of some sort, such as sightings of right whales, to close the area. Commenters opposing the rule expressed concerns about the safety of using more traps per trawl for their fishing operations and the safety of using weak buoy lines, as well as the potential for increased gear conflict and gear loss. Fishermen also wanted clarity and certainty in the regulations, and many wanted assurances that these regulations should be easy to understand, monitor, and enforce.

There was also strong opposition to any suggestion that fishermen would be required to use ropeless technology, although neither the proposed nor final rule would mandate ropeless fishing. Commenters expressed concerns about the lack of detailed economic analysis of the use of ropeless technology and economic impacts on both trap/pot fisheries and mobile gear fisheries that are not currently Category I and II fisheries managed under the Take Reduction Plan. Finally, Maine DMR, Rhode Island Division of Marine Fisheries, Connecticut and New York Marine Fisheries Programs, the Atlantic Offshore Lobstermen's Association, and other commenters requested

modifications for the final rule to accommodate conservation equivalencies that would achieve the same risk reduction, but better reflect more localized fishing conditions or practices.

Given the vast amount of industry input into the development of weak insertions, which would not require fishermen to replace buoy lines, and trawling up measures, many gear modifications implemented in this final rule were created to control costs. Additionally, a number of modifications to the rule were made in response to these comments, including:

Rather than increase traps fished between buoy lines (trawling up) in southern New England's Lobster Management Area (LMA) 2, the final rule requires additional weak insertions for vessels fishing throughout LMA 2. Analysis indicates this achieves improved risk reduction. This modification was requested in public comments submitted by Rhode Island fishermen and state managers as safer for Rhode Island vessels;

The final rule implements conservation equivalency measures submitted by the Atlantic Offshore Lobstermen's Association, recommending three trawling-up restricted areas where 50, 45, or 35 traps per trawl would be required rather than 45 across the Northeast LMA 3 as conservation equivalencies that accommodate smaller vessels that fish south of Georges Bank. Those requirements were adopted in the final rule after analysis confirmed that the measures achieved similar risk reduction;

The Maine Department of Marine Resources requested extensive modifications by Maine Lobster Management Zones based on their outreach to Maine Zone Councils. The changes modified the trawling up and weak insertion requirements. Most of the requested conservation equivalencies out to 12 miles were adopted in this final rule;

The final rule implements a buoy line closure offshore of Maine in LMA 1 from October through January. The proposed rule requested comments on not closing the area, or closing it after a trigger was reached, but no feasible trigger was offered and the closure is necessary to achieve sufficient risk reduction, and;

The final rule removes a requirement for weak links at the buoy. This measure is not needed for buoy lines that now require weak rope or weak insertions.

See chapter 1 section 1.6 of the FEIS for a full discussion of changes made to the final rule based on new information and comments received during the public comment period and see Comments and Responses or Chapter 1, Appendix 1.1, and Volume 3 of the FEIS for further details on comments on the DEIS and proposed rule. Those comments were aggregated across themes and our responses are not repeated here. All revisions and clarifications to the proposed rule, as well as the rationale for these revisions, are described in Chapter 1 of the FEIS and are not repeated here.

Description and Estimate of the Number of Small Entities to Which the Rule Would Apply

The RFA requires agencies to assure that decision makers consider disproportionate and/or significant adverse economic impacts of their proposed regulations on small entities. The Regulatory Flexibility Act Analysis determines whether the proposed action would have a significant economic impact on a substantial number of small entities. This section provides an assessment and discussion of the potential economic impacts of the proposed action, as required of the RFA.

Section 3 of the Small Business Act defines affiliation as: Affiliation may arise among two or more persons with an identity of interest. Individuals or firms that have identical or substantially identical business or economic interests (such as family members, individuals or firms with common investments, or firms that are economically dependent through contractual or other relationships) may be treated as one party with such interests aggregated (13 CFR 121.103(f)). These principles of affiliation allow for consideration of shared interest that does not necessarily require common ownership. However, data are not available to ascertain non-ownership interest so we use an affiliated[6] vessel database created by the Social Sciences Branch (SSB) of the Northeast Fisheries Science Center. There are three major components of this dataset: Vessel affiliation information, landing values by species, and vessel permits. All Federal permitted vessels in the Northeast Region from 2017 to 2019 are included in this dataset where affiliation is determined by unique combinations of owners.

The total number of directly regulated entities is based on permits held. Since the final rule would apply only to the lobster and Jonah crab trap/pot businesses[7] in LMA 1, LMA 2, LMA 3, and OCC, only entities that possess one or more of these permits are evaluated. Then for each affiliation, the revenues from all member vessels of the entity are summed into affiliation revenue in each year. On December 29, 2015, the NMFS issued a final rule establishing a small business size standard of $11 million in annual gross receipts for all businesses primarily engaged in the commercial fishing industry (NAICS 11411) for RFA compliance purposes only. The $11 million standard became effective on July 1, 2016. Thus, the RFA defines a small business in the lobster fishery as a firm that is independently owned and operated with receipts of less than $11 million annually. Based on this size standard, the three-year average (2017–2019) affiliation revenue is greater than $11 million, the fishing business is considered a large entity, otherwise it is a small entity. Then we determine the number of impacted entities by examining the landing values of lobster. If one or more members of the affiliation landed lobster in 2019, this business will be considered an impacted entity in our analysis.

Regulated entities in this rulemaking include both entities with Federal lobster permits and lobster vessels that only fish in state managed waters except for the exempted areas in Maine. Using vessel data from Vertical Line Model developed by the Industrial Economics (see Appendix 5.1 of FEIS for documentation), we identify 1,913 vessels that fished only in state waters outside Maine exempted areas. Due to the lack of owner and landing information of these vessels, we could not provide detailed analysis but have to assume all to be small entities. Using Federal permit data, there are 1,547 distinct entities identified as directly regulated entities in this action, those that held lobster permits in LMA 1, 2, 3, or OCC, or some combination. So all together, 3,460 entities are regulated under this action. Table 1 displays the details of regulated entities holding Federal permits. Of all 1,547 entities, only two of them are large. Within the 1,545 small entities, 262 had no earned revenue from fishing activity even though they had a lobster permit. Because they had no revenue, they would be considered small by default. Among the 1,283 small entities with fishing revenue, 110 entities had no lobster landings. Therefore, 3,086 small

[6] We use terms affiliation, fishing business and entity interchangeably in this section.

[7] During the time period of our analysis (2017–2019), no specific permit was needed to fish for Jonah crab. Beginning on December 12, 2019, only vessels that have a federal American lobster trap or non-trap permit may retain Jonah crabs.

entities would be considered as impacted small entities during this rulemaking. The average gross annual revenue for small entities with lobster landings was $287,000 in 2019, and 91.5 percent of that is from lobsters. For small entities without lobster landings, their annual gross revenue was $135,000. The average revenue for all small entities was about $252,000. The revenue of large entities are not reported here for data confidentiality reasons.

TABLE 7—THE NUMBER OF REGULATED ENTITIES WITH FEDERAL PERMITTED VESSELS AND THEIR LOBSTER LANDING VALUE PERCENTAGE OF ANNUAL GROSS REVENUE IN 2019

[In 2020 U.S. $]

	Large entity (E)	Lob % revenue large E	Average revenue large E	Small entity	Lob % revenue small E	Average revenue small E	Total entities
Fishing with Lobster Landing	2	83.9%	N/A	1,173	91.5%	$287,000	1,175
Fishing Without Lobster Landing	0	0	N/A	110	0	135,000	110
No revenue	0	0	N/A	262	0	0	262
Total Entities	2		N/A	1,545		252,000	1,547

Notes: 1. The determination of large or small entity is based on three-year average affiliation revenue from 2017 to 2019. Lobster landing percentage is calculated using only 2019 data.
2. Gross annual average revenue for large entities are not reported here due to confidentiality concern.
Source: Social Science Branch vessel affiliation data, 2017–2019.

Section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996 states that, for each rule or group of related rules for which an agency is required to prepare a FRFA, the agency shall publish one or more guides to assist small entities in complying with the rule, and shall designate such publications as ''small entity compliance guides.'' The agency shall explain the actions a small entity is required to take to comply with a rule or group of rules. As part of this rulemaking process, an outreach document that serves as a small entity compliance guide was prepared. Copies of this final rule are available from the Greater Atlantic Regional Fisheries Office (GARFO), and the compliance guide will be sent to all holders of permits for the lobster fishery in the Northeast Region. The compliance guide and this final rule will be posted on the Plan web page at *Fisheries.NOAA.gov/ALWTRP.*

Description of the Steps the Agency Has Taken To Minimize the Significant Economic Impact on Small Entities Consistent With the Stated Objectives of Applicable Statutes

NMFS determined a 60- to 80-percent risk reduction was necessary to reduce mortality and serious injury in the American lobster and Jonah crab commercial fisheries to below PBR. Where risk reduction benefits were equal and where safety, capacity, economic, or operational constraints were better served, conservation equivalencies requested through public comments on the DEIS and proposed rule to mitigate those concerns were accepted and are included in this final rule. These include conservation equivalencies in Maine LMA 1 waters, LMA 2 and LMA 3 waters. To enable the Maine LMA 1 conservation equivalencies, this rule also modifies regulations implementing the Atlantic Coastal Fisheries Cooperative Management Act at 50 CFR 697.21(b)2), increasing the maximum number of traps on a trawl with a single buoy line from three to ten in some Maine Zones. This would allow vessel operators to trawl up to a 20-trap trawls or to use two 10-trap trawls with one buoy line. Additional changes made to accommodate conservation equivalency measures offered by the Maine Department of Marine Resources and supported by commenters from the Maine fishing industry, including modifications to the number of traps on a trawl or the number of weak insertions based on Maine fishery zones and distance from shore out to 12 nm (22.2 km). This rule also implements conservation equivalency recommendations submitted by Rhode Island and supported by Rhode Island fishermen, modifying the LMA 2 measures with more expansive weak insert requirements throughout the LMA rather than trawling up requirements that challenged the capacity of some Rhode Island vessels. Additionally, this rule implements some of the conservation equivalency recommendations submitted by the Atlantic Offshore Lobstermen's Association as public comments on the DEIS and Proposed Rule for LMA 3. This rule implements three management areas in LMA 3 with three different trawling up requirements, requiring more traps/trawl in the Georges Basin area where there is more risk to right whales. This increase in number of traps per trawl of Georges Basin was offset by a lower number of traps required within the Northeast Region south of the 50 fathom (91.4 m) depth contour on the south end of Georges Bank.

All these conservation equivalencies were created with input from fishermen from these areas, informed by their knowledge of measures that would best fit their economic, operational or safety needs. For LMA 2 vessels, the weak rope alternative implemented has less impact on catch and landings and therefore could have a lower economic impact compared to the LMA 2 measures analyzed in the IRFA.

This rule also modifies existing seasonal restricted areas that were closed to lobster and Jonah crab trap/pot fishing to allow ropeless fishing with exempted fishing permits (EFP). Under a revised restricted area definition, trap/pot fishermen could fish with trap/pot gear using ''ropeless'' methods, although an EFP would be required to exempt fishermen from surface marking requirements under other laws. Since 2018, NOAA has invested a substantial amount of funding in the industry's development of ropeless gear, in specific geographic areas and in general. We anticipate that these efforts to facilitate and support the industry's development of ropeless gear would continue, pending appropriations, and would be essential to defray costs for early adopters.

Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements

This final rule contains a collection-of-information requirement subject to review and approval by OMB under the Paperwork Reduction Act (PRA), specifically the marking of fishing gear. This rule changes the existing requirements for the collection of information 0648–0364 by modifying gear marking for all buoy lines with the exemption of those fishing in Maine exempted waters in the Northeast Region Trap/Pot Management Area. As described in this preamble, mark colors will be changed for vessels identifying principal ports from Maine through Rhode Island to state-specific marks. Under the new marking scheme, a large 3-foot (91-cm) mark would be required within the top 2 fathoms (60.96 cm) of the buoy in state and Federal waters. Within state waters, at least two additional 12-inch (30.5-cm) marks would be required in the top and bottom of the main buoy line. In Federal waters, at least three 12-inch (30.5-cm) marks would be required at the top, middle, and bottom of the main buoy line. In Federal waters, an additional 12-inch (30.5 cm) green mark is required within 6 inches (15.25 cm) of each state specific mark (at least four in total, including the large mark in the surface system and at least three marks in the main buoy line). Each color mark must be permanently affixed on or along the line, and each color mark must be clearly visible when the gear is hauled or removed from the water. Paint and tape will be required for the surface system marks, and the commonly used colored ties and twine can be used within the main buoy lines. The changes from current gear marking include: The state color, the addition of a surface system mark, one less mark required in the main buoy line in state waters, and four additional marks required to distinguish Federal waters. While Maine fishermen in non-exempt state waters have already marked their gear under Maine regulations, we include the costs of that effort in our calculation in response to comments that noted that the Maine regulations were implemented in anticipation of this rule. Additionally, we had previously assumed that about 20 percent of the gear marks were reapplied each year, but new information suggests they are applied annually. Using these assumptions, the public reporting burden for the Northeast Region lobster and Jonah crab gear marking requirements are estimated to affect 3,970 vessels that need to remark an average of 389 marks each year. Each mark takes between approximately 6.7 and 8.6 minutes to apply, depending on the size of the mark and method used. Applying the annual hourly wage rate for fishermen of $26.5 results in a total estimated annual wage burden cost of $4.5 to 5.9 million dollars.

We invite the general public and other Federal agencies to comment on proposed and continuing information collections, which helps us assess the impact of our information collection requirements and minimize the public's reporting burden. Written comments and recommendations for this information collection should be submitted at the following website *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by using the search function and entering either the title of the collection or the OMB Control Number 0648–0364.

Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the PRA, unless that collection of information displays a currently valid OMB Control Number.

Consistency With Coastal Zone Management Act

NMFS has determined that this action is consistent to the maximum extent practicable with the approved coastal management programs of the U.S. Atlantic coastal states affected by the action. This determination was submitted for review by the responsible state agencies under section 307 of the Coastal Zone Management Act. New Hampshire and Rhode Island agreed with NMFS' determination. Maine and Massachusetts did not respond; therefore, consistency is inferred.

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List of Subjects

50 CFR Part 229

Administrative practice and procedure, Confidential business information, Endangered Species, Fisheries, Marine mammals, Reporting and recordkeeping requirements.

50 CFR Part 697

Fisheries, Fishing.

Dated: August 30, 2021.

Samuel D. Rauch, III,

Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

For the reasons set out in the preamble, 50 CFR parts 229 and 697 are amended as follows:

PART 229—AUTHORIZATION FOR COMMERCIAL FISHERIES UNDER THE MARINE MAMMAL PROTECTION ACT OF 1972

■ 1. The authority citation for 50 CFR part 229 continues to read as follows:

Authority: 16 U.S.C. 1361 *et seq.;* § 229.32(f) also issued under 16 U.S.C. 1531 *et seq.*

■ 2. In § 229.2, add definitions for ''Lobster Management Area,'' ''Greater Atlantic Regional Administrator'' and ''Surface system'' in alphabetical order to read as follows:

§ 229.2 Definitions.

* * * * *

Lobster Management Area as used in this part means the management areas defined in the American Lobster Fishery regulations found at 50 CFR 697.18.

* * * * *

Greater Atlantic Regional Administrator as used in this part, means the Regional Administrator for the regional fisheries office of the National Oceanic and Atmospheric Administration for the large marine ecosystem from Maine to Cape Hatteras, North Carolina directed from the Regional Office in Gloucester, Massachusetts.

* * * * *

Surface system, with reference to trap/pot and fixed gillnet gear, includes the components at the sea surface to identify the presence of stationary bottom fishing gear, and includes buoys, radar reflectors, and high flyers.

* * * * *

■ 3. Revise § 229.32 to read as follows:

§ 229.32 Atlantic large whale take reduction plan regulations.

(a) *Purpose and scope*—(1) *Whales and fixed gear fisheries.* The purpose of this section is to implement the Atlantic Large Whale Take Reduction Plan to reduce incidental mortality and serious injury of fin, humpback, and right whales in specific Category I and Category II commercial fisheries from Maine through Florida. Specific Category I and II commercial fisheries within the scope of the Plan are identified and updated in the annual List of Fisheries. The measures identified in the Atlantic Large Whale Take Reduction Plan are also intended to benefit minke whales, which are not designated as a strategic stock, but are known to be taken incidentally in gillnet and trap/pot fisheries. The gear types affected by this plan include gillnets (*e.g.,* anchored, drift, and shark) and traps/pots. The Assistant Administrator may revise the

requirements set forth in this section in accordance with paragraph (i) of this section;

(2) *Regulated waters*—(i) *U.S. Atlantic waters.* The regulations in this section apply to all U.S. waters in the Atlantic except for the areas exempted in paragraph (a)(3) of this section;

(ii) *Northeast Region.* The Northeast Region referred to in paragraphs (b)(1) (b)(2)(i), (b)(3), and (c)(2)(iv) of this section applies to ocean waters within an area bounded on the west by land or by a rhumb line from 41°18.2′ N lat., 71°51.5′ W long. (Watch Hill Point, RI) and on the south by the 40°00′ N lat. line running east to the EEZ line, and bounded on the east by the EEZ north to the U.S./Canada border except for the areas and specific purposes exempted in paragraph (a)(3) of this section; and

(iii) *Six-mile line.* The six-mile line referred to in paragraph (c)(2)(iv) of this section is a line connecting the following points (Machias Seal to Provincetown):

Table 1 to Paragraph (a)(2)(iii)

44°31.98′ N lat., 67°9.72′ W long. (Machias Seal)
44°3.42′ N lat., 68°10.26′ W long. (Mount Desert Island)
43°40.98′ N lat., 68°48.84′ W long. (Matinicus)
43°39.24′ N lat., 69°18.54′ W long. (Monhegan)
43°29.4′ N lat., 70°5.88′ W long. (Casco Bay)
42°55.38′ N lat., 70°28.68′ W long. (Isle of Shoals)
42°49.53′ N lat., 70°32.84′ W long.
42°46.74′ N lat., 70°27.70′ W long.
42°44.18′ N lat., 70°24.91′ W long.
42°41.61′ N lat., 70°23.84′ W long.
42°38.18′ N lat., 70°24.06′ W long.
42°35.39′ N lat., 70°25.77′ W long.
42°32.61′ N lat., 70°27.91′ W long.
42°30.00′ N lat., 70°30.60′ W long.
42°17.19′ N lat., 70°34.80′ W long.
42°12.48′ N lat., 70°32.20′ W long.
42°12.27′ N lat., 70°25.98′ W long.
42°11.62′ N lat., 70°16.78′ W long.
42°12.27′ N lat., 70°10.14′ W long.
42°12.05′ N lat., 70°54.26′ W long.
42°11.20′ N lat., 70°17.86′ W long.
42°09.55′ N lat., 69°58.80′ W long. (Provincetown)

(iv) *Maine pocket waters.* The pocket waters referred to in paragraph (c)(2)(iv) of this section are defined as follows:

Table 2 to Paragraph (a)(2)(iv)

West of Monhegan Island in the area north of the line 43°42.17′ N lat., 69°34.27′ W long. and 43°42.25′ N lat., 69°19.3′ W long.

East of Monhegan Island in the area located north of the line 43°44′ N lat., 69°15.08′ W long. and 43°48.17′ N lat., 69°8.02′ W long.

South of Vinalhaven Island in the area located west of the line 43°52.31′ N lat., 68°40′ W long. and 43°58.12′ N lat., 68°32.95′ W long.

South of Bois Bubert Island in the area located northwest of the line 44°19.27′ N lat., 67°49.5′ W long. and 44°23.67′ N lat., 67°40.5′ W long.

(v) *Maine Lobster Management Zones:* The Maine Zones referred to in paragraph (c)(2)(iv) of this section include waters seaward of the Maine Exempted Waters referred to in paragraph (a)(3)(ii)(A) of this section as managed in eight Zones defined by Maine DMR. The Zones are bounded northeast by the U.S./Canada EEZ International Boundary line, offshore by the Lobster Management Area (LMA) boundary where LMA 1 meets the border of LMA 3 (LMA 1/LMA 3 boundary), and to the west by a boundary proceeding offshore from the Maine/New Hampshire state line. Individual Zone boundaries are defined as follows:

TABLE 3 TO PARAGRAPH (a)(2)(v)

Maine lobster management zone	Description
A—East	The eastern and offshore boundary of Zone A East follows the International Boundary line between Canada and the United States (Maine) extending to and following the Exclusive Economic Zone boundary to approximately 44°8′ N lat., 67°18.00′ W long. The western boundary runs from that point due north along the 67°18.00′ W long. line to Cross Island, Maine.
A—West	The eastern boundary of Zone A West is the western boundary of Zone A East. The western boundary of Zone A West follows: A line running from the Southern tip of Schoodic Point at 44°19.90′ N lat., and 68°03.61′ W long. and running south southeast to the LMA1/LMA3 border at 43°45.43′ N lat. and 67°50.12′ W long. The offshore boundary is the LMA1/LMA3 boundary.
B	The eastern boundary of Zone B is the western boundary of Zone A West. The western boundary follows a line that starts at the southernmost end of Newbury Neck following a straight line connecting the points as follows: 44°13.7′ N lat, 68°27.8 W long. (a point ¼ mile due east of Pond Island), then to the easternmost point of Black Island then to the navigation buoy R "8" at the western entrance of York Narrows then south to Swans Island Head then continuing along the southwestern shore of Swans Island to West Point then following the western boundary of the Swans Island Lobster Conservation Area southerly to a point at 44° 01.9′ N lat, 68°28.6′ W long, then SSE to 43°32.66′ N lat., 68°17.28′ W long. where it intersects the LMA1/LMA3 boundary. The offshore boundary is the LMA1/LMA3 boundary.
C	The eastern boundary of Zone C is the western boundary of Zone B. The western boundary runs along a line connecting the points as follows: 44°18.72′ N lat., 68°49.61′ W long. (Head of the Cape, Cape Rosier), SSW to 44°10.49′ N lat., 68°55.57′ W long., SW to 44°06.14′ N lat, 69°00.00′ W long., S to 44°04.51′ N lat., 69°00.01′ W long., SSE to 44° 00.79′ N lat., 68°59.48′ W long., SSE to 43°58.01′ N lat., 68°58.02′ W long., WSW to 43°57.82′ N lat., 68° 58.69′ W long., SSW to 43°56.86′ N lat., 68°58.85′ W long., SE to 43°55.30′ N lat., 68°55.00′ W long., WSW to 43°54.27′ N lat., 68°58.33′ W long., S to 43°51.00′ N lat., 68°58.31′ W long., W to 43°51.00′ N lat., 69°00.11′ W long., SSE to 43°46.57′ N lat., 68°59.30′ W long., SW to 43°44.88′ N lat., 69°01.97′ W long., SE to 43°35.08′ N lat., 68° 50.08′ W long., S to 43°19.63′ N lat., 68° 44.255′ W long. where it intersects the LMA1/LMA3 boundary. The offshore boundary is the LMA1/LMA3 boundary.
D	The eastern boundary of Zone D runs along the points as follows:

TABLE 3 TO PARAGRAPH (a)(2)(v)—Continued

Maine lobster management zone	Description
	44° 18.72′ N, 068° 49.61′ W (Head of the Cape, Cape Rosier), SSW to 44° 10.492′ N, 068° 55.574′ W, SW to 44° 06.136′ N, 069° 00.000′ W, S to 44° 04.506′ N, 069° 00.014′ W, SSE to 44° 00.788′ N, 068° 59.475′ W, SSE to 43° 58.011′ N, 068° 58.023′ W, ENE to 43° 58.194′ N, 068° 57.381′ W, SSE to 43° 57.309′ N, 068° 57.226′ W, SE to 43° 55.688′ N, 068° 53.662′ W, WSW to 43° 55.285′ N, 068° 55.000′ W, WSW to 43° 54.265′ N, 068° 58.330′ W, S to 43° 50.997′ N, 068° 58.313′ W, W to 43° 51.001′ N, 069° 00.107′ W, SSE to 43° 46.565′ N, 068° 59.298′ W, NE to 43° 47452′ N, 068° 57.853′ W, SE to 43° 44.669′ N, 068° 54.350′ W, S to 43°19.63′ N lat., 68° 44.255′ W long. where it intersects the LMA1/LMA3 boundary.
	The western boundary of Zone D starts at the southern tip of Pemaquid Point, SSW and follows a line connecting the points as follows:
	43°48.1′ N lat, 69°30′W long., S to 43°39.0′ N lat, 69°30.0′ W long., S to 43°02.57′ N lat, 69°16.43′ W long., to where it intersects the LMA1/LMA3 boundary.
	The offshore boundary is the LMA1/LMA3 boundary.
E	The eastern boundary of Zone E is the western boundary of Zone C.
	The western boundary of Zone E begins at Newbury Point in Small Point Harbor, Phippsburg and follows a line connecting the points as follows:
	SSW to N″2′, SSE to "2BH", S to 43°38.73′ N lat., 69°49.95′ W long., along the 3 mile line to 43°38.87′ N lat., 69°48.82′ W long, S to 42°53.51′ N lat., 69° 32.18′ W long., where it intersects the LMA1/LMA3 boundary.
	The offshore boundary is the LMA1/LMA3 boundary.
F	The eastern boundary of Zone F is the western boundary of Zone E.
	The western boundary of Zone F runs in a straight line from the active Lighthouse at Two Lights Cape Elizabeth and follows a line connecting the points as follows:
	43°31.80′ N lat. 70°08.56′ W long. near the C "1" East Hue & Cry buoy, WSW to 43°29.28′ N lat, 70°11.77′ W long., S to 42°36.22′ N lat. 69°52.66′ W long, where it intersects the southeastern apex of Zone G. From this point, Zone F boundary follows a straight line southeast to 42°29.85′ N − 69° 40.08′ W where it meets the LMA1/LMA3 boundary.
	The offshore boundary is the LMA1/LMA3 boundary.
G	The eastern boundary of Zone G is as follows:
	43° 41.550′ N, 070° 14.650′ W, SSE 159° Magnetic to 43° 32.875′ N, 070° 05.920′ W, SSE to 42° 31.50′ N, −69° 43.34′ W where it meets with the southwestern boundary of Zone F.
	The western boundary of Zone G is the seaward extension of the Maine—NH border and follows a line connecting the points as follows:
	43°02.62′ N lat. 70°42.1′ W long., to 42°58.92′ N lat., 70°37.65′ W long., to 42°58.75′ N lat., 70°36.72′ W long., to where it intersects with the western Zone F boundary.

(3) *Exempted waters*—(i) *COLREGS demarcation line.* The regulations in this section do not apply to waters landward of the 72 COLREGS demarcation lines (International Regulations for Preventing Collisions at Sea, 1972), as depicted or noted on nautical charts published by the National Oceanic and Atmospheric Administration (Coast Charts 1:80,000 scale), and as described in 33 CFR part 80 with the exception of the COLREGS lines for Casco Bay (Maine), Portsmouth Harbor (New Hampshire), Gardiners Bay and Long Island Sound (New York), and the state of Massachusetts;

(ii) *Other exempted waters*—(A) *Maine.* The regulations in this section do not apply to waters landward of a line connecting the following points (Quoddy Narrows/U.S.-Canada border to Odiornes Pt., Portsmouth, New Hampshire):

Table 4 to Paragraph (a)(3)(ii)(A)

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

(B) *New Hampshire.* New Hampshire state waters are exempt from the minimum number of traps per trawl requirement in paragraph (c)(2)(iv) of this section. Harbor waters landward of the following lines are exempt from all the regulations in this section;

Table 5 to Paragraph (a)(3)(ii)(B)

A line from 42°53.691′ N lat., 70°48.516′ W long. to 42°53.516′ N lat., 70°48.748′ W long. (Hampton Harbor)

A line from 42°59.986′ N lat., 70°44.654′ W long. to 42°59.956′ N, 70°44.737′ W long. (Rye Harbor)

(C) *Rhode Island.* Rhode Island state waters are exempt from the minimum number of traps per trawl requirement in paragraph (c)(2)(iv) of this sectioN Harbor waters landward of the following lines are exempt from all the regulations in this section;

Table 6 to Paragraph (a)(3)(ii)(C)

A line from 41°22.441′ N lat., 71°30.781′ W long. to 41°22.447′ N lat., 71°30.893′ W long. (Pt. Judith Pond Inlet)

A line from 41°21.310′ N lat., 71°38.300′ W long. to 41°21.300′ N lat., 71°38.330′ W long. (Ninigret Pond Inlet)

A line from 41°19.875′ N lat., 71°43.061′ W long. to 41°19.879′ N lat., 71°43.115′ W long. (Quonochontaug Pond Inlet)

A line from 41°19.660′ N lat., 71°45.750′ W long. to 41°19.660′ N lat., 71°45.780′ W long. (Weekapaug Pond Inlet)

A line from 41°26.550′ N lat., 71°26.400′ W long. to 41°26.500′ N lat., 71°26.505′ W long. (Pettaquamscutt Inlet)

(D) *New York.* The regulations in this section do not apply to waters landward of a line that follows the territorial sea baseline through Block Island Sound (Watch Hill Point, RI, to Montauk Point, NY);

(E) *Massachusetts.* The regulations in this section do not apply to waters landward of the first bridge over any embayment, harbor, or inlet in Massachusetts. The following Massachusetts state waters are exempt from the minimum number of traps per trawl requirement in paragraph (c)(2)(iv) of this section:

(*1*) *Exempt waters of Massachusetts Bay and Outer Cape.* Heading From the New Hampshire border to 70° W longitude south of Cape Cod, waters in EEZ Nearshore Management Area 1 and the Outer Cape Lobster Management Area (as defined in the American Lobster Fishery regulations under § 697.18 of this title), from the shoreline to 3 nautical miles from shore, and including waters of Cape Cod Bay southeast of a straight line connecting 41° 55.8′ N lat., 70°8.4′ W long. and 41°47.2′ N lat., 70°19.5′ W long.; and

(*2*) *Exempt waters of southern Massachusetts.* Heading From 70° W longitude south of Cape Cod to the Rhode Island border, all Massachusetts state waters in EEZ Nearshore Management Area 2 and the Outer Cape Lobster Management Area (as defined in the American Lobster Fishery regulations 50 CFR 697.18), including Federal waters of Nantucket Sound west of 70° W long.;

(F) *South Carolina.* The regulations in this section do not apply to waters landward of a line connecting the following points from 32°34.717′ N lat., 80°08.565′ W long. to 32°34.686′ N lat., 80°08.642′ W long. (Captain Sams Inlet);

(4) *Sinking groundline exemption.* The fisheries regulated under this section are exempt from the requirement to have groundlines composed of sinking line if their groundline is at a depth equal to or greater than 280 fathoms (1,680 feet or 512.1 m);

(5) *Net panel weak link and anchoring exemption.* The anchored gillnet fisheries regulated under this section are exempt from the requirement to install weak links in the net panel and anchor each end of the net string if the float-line is at a depth equal to or greater than 280 fathoms (1,680 feet or 512.1 m); and

(6) *Island buffer.* Those fishing in waters within ¼ nautical miles of the following Maine islands are exempt from the minimum number of traps per trawl requirement in paragraph (c)(2)(iv) of this section: Monhegan Island, Matinicus Island Group (Metinic Island, Small Green Island, Large Green Island, Seal Island, Wooden Ball Island, Matinicus Island, Ragged Island), and Isles of Shoals Island Group (Duck Island, Appledore Island, Cedar Island, Smuttynose Island).

(b) *Gear marking requirements*—(1) *Specified area*s Fishermen permitted by Maine, New Hampshire, Massachusetts, Rhode Island, and NMFS to fish for lobster and Jonah crab using trap/pot gear in the Northeast Region will follow the color marking requirements for Federal waters as indicated in paragraph (b)(2) of this section and, except for when fishing in LMA3, will follow the color code scheme assigned to their state, indicated in paragraph (b)(3) of this section. For all other trap/pot and gillnet gear, excluding shark gillnet, the following areas are specified for gear marking purposes: Northern Inshore State Trap/Pot Waters, Cape Cod Bay Restricted Area, Massachusetts Restricted Area, Stellwagen Bank/Jeffreys Ledge Restricted Area, Northern Nearshore Trap/Pot Waters Area, Great South Channel Restricted Trap/Pot Area, Great South Channel Restricted Gillnet Area, Great South Channel Sliver Restricted Area, Southern Nearshore Trap/Pot Waters Area, Offshore Trap/Pot Waters Area, Other Northeast Gillnet Waters Area, Mid/South Atlantic Gillnet Waters Area, Other Southeast Gillnet Waters Area, Southeast U.S. Restricted Areas, and Southeast U.S. Monitoring Area;

(i) *Jordan Basin.* The Jordan Basin Restricted Area is bounded by the following points connected by straight lines in the order listed:

TABLE 7 TO PARAGRAPH (b)(1)(i)

Point	N Lat.	W Long.
JBRA1	43°15′	68°50′
JBRA2	43°35′	68°20′
JBRA3	43°25′	68°05′
JBRA4	43°05′	68°20′
JBRA5	43°05′	68°35′
JBRA1	43°15′	68°50′

(ii) *Jeffreys Ledge Restricted Area.* The Jeffreys Ledge Restricted Area is bounded by the following points connected by a straight line in the order listed:

TABLE 8 TO PARAGRAPH (b)(1)(ii)

Point	N Lat.	W Long.
JLRA1	43°15′	70°25′

TABLE 8 TO PARAGRAPH (b)(1)(ii)—Continued

Point	N Lat.	W Long.
JLRA2	43°15′	70°00′
JLRA3	42°50′	70°00′
JLRA4	42°50′	70°25′
JLRA1	43°15′	70°25′

(2) *Markings.* All specified gear in specified areas must be marked with the color code shown in paragraph (b)(3) of this section. The color must be permanently marked on or along the rope or ropes specified under paragraphs (b)(2)(i) through (iv) of this section. Each colored mark must be clearly visible when the gear is hauled or removed from the water, including if the color of the rope is the same as or similar to the respective color code;

(i) *Northeast Region lobster and Jonah crab buoy line markings.* Beginning May 1, 2022, for all Federal and state Northeast Region lobster and Jonah crab trap/pot gear regulated under this section, the buoy lines must be marked with a solid mark at least 36 inches (91.4 cm) in length within 2 fathoms (3.7 m) of the surface buoy. When fishing in Federal waters, all Northeast Region lobster and Jonah crab trap/pot buoy lines must have an additional green mark of at least 12 inches (30.5 cm) in length no more than 6 inches (15.2 cm) from the 36-inch (91.4 cm) mark. These long marks within 2 fathoms (3.7 m) of the buoy must be solid marks that may be applied with dyed, painted, or heat-shrink tubing, insertion of a colored rope or braided sleeve, or the line may be marked as approved in writing by the Greater Atlantic Regional Administrator. When fishing in state waters, the buoy line below the surface system must be marked by the principal port state color at least two additional times (top half, bottom half) and each mark must at least total 12 inches (30.5 cm) for a total of at least three marks in state waters. For dual permitted vessels, state regulations will determine whether green Federal markings in the surface system and buoy line below the surface system can remain on gear being fished in state waters. When in Federal waters, the buoy line below the surface system must be marked at least three additional times (top, middle, and bottom) with the state or LMA 3 specific color, and each mark must total at least 12 inches (30.5 cm) in length. An additional green mark of at least 12 inches (30.5 cm) in length denoting Northeast Region Federal waters must be placed within 6 inches (15.2 cm) of each area-specific colored mark for a total of at least eight marks in Federal waters. In marking or affixing the color code(s) for the 1-foot buoy line marks for gear regulated under this paragraph (b)(2)(i), the line may be: Dyed; painted, marked with thin colored whipping line, thin colored plastic, or heat-shrink tubing; spliced in insertion of a colored rope or braided sleeve or other material, or a thin line may be woven into or through the line; or the line may be marked as approved in writing by the Greater Atlantic Regional Administrator. An outreach guide illustrating the techniques for marking gear is available from the Greater Atlantic Regional Administrator upon request and posted on the Atlantic Large Whale Take Reduction Plan website at *Fisheries.NOAA.gov/ALWTRP;*

(ii) *Other buoy line markings.* For all other trap/pot and gillnet gear regulated under this section, the buoy line must be marked at least three times (top, middle, bottom) and each mark must total at least 12 inches (30.5 cm) in length. If the mark consists of two colors, then each color mark may be at least 6 inches (15.2 cm) for a total mark of 12 inches (30.5 cm). In marking or affixing the color code for gear regulated under this paragraph (b)(2)(ii), the line may be: Dyed, painted, marked with thin colored whipping line, thin colored plastic, or heat-shrink tubing, spliced in insertion of a colored rope or braided sleeve or other material, or a thin line may be woven into or through the line, or the line may be marked as approved in writing by the Greater Atlantic Regional Administrator. An outreach guide illustrating the techniques for marking gear is available from the Greater Atlantic Regional Administrator upon request and posted on the Atlantic Large Whale Take Reduction Plan website at *Fisheries.NOAA.gov/ALWTRP;*

(iii) *Net panel markings.* Shark gillnet gear net panels in the Southeast U.S. Restricted Area S, Southeast U.S. Monitoring Area and Other Southeast Gillnet Waters are required to be marked. The net panel must be marked along both the floatline and the leadline at least once every 100 yards (91.4 m);

(iv) *Surface buoy markings.* Trap/pot and gillnet gear regulated under this section must mark all surface buoys to identify the vessel or fishery with one of the following: The owner's motorboat registration number, the owner's U.S. vessel documentation number, the Federal commercial fishing permit number, or whatever positive identification marking is required by the vessel's home-port state. When marking of surface buoys is not already required by state or Federal regulations, the letters and numbers used to mark the gear to identify the vessel or fishery must be at least 1 inch (2.5 cm) in height in block letters or Arabic numbers in a color that contrasts with the background color of the buoy. An outreach guide illustrating the techniques for marking gear is available from the Greater Atlantic Regional Administrator upon request and posted on the Atlantic Large Whale Take Reduction Plan website *Fisheries.NOAA.gov/ALWTRP;*

(3) *Color code.* Gear must be marked with the appropriate colors to designate gear types and areas as follows:

TABLE 9 TO PARAGRAPH (b)(3)

Color code scheme	
Plan management area	Color
Northeast Region, Lobster and Jonah Crab Trap/Pot Gear, Applicable beginning May 1, 2022	
Trawls fished by vessels permitted by the state of Maine and with a principal port identified in Maine when fished in state waters.	Purple.

TABLE 9 TO PARAGRAPH (b)(3)—Continued

Color code scheme	
Plan management area	Color
Trawls fished by vessels permitted by the state of Maine and NMFS, with a principal port identified in Maine when fished in Federal LMA 1 waters *.	Purple, Green.
Trawls fished by vessels permitted by the state of New Hampshire and with a principal port identified in New Hampshire when fished in state waters.	Yellow.
Trawls fished by vessels permitted by the state of New Hampshire and NMFS, with a principal port identified in New Hampshire when fished in Federal LMA 1 waters *.	Yellow, Green.
Trawls fished by vessels permitted by the state of Massachusetts and with a principal port identified in Massachusetts when fished in state waters.	Red.
Trawls fished by vessels permitted by the state of Massachusetts and NMFS with a principal port identified in Massachusetts when fished in Federal waters of LMA 1, OC, LMA 2 (including 2/3 overlap) *.	Red, Green.
Trawls fished by vessels permitted by the state of Rhode Island and with a principal port identified in Rhode Island when fished in state waters.	Silver/Gray.
Trawls fished by vessels permitted by the state of Rhode Island and NMFS, with a principal port identified in Rhode Island when in Federal waters of LMA 2 (including 2/3 overlap) *.	Silver/Gray, Green.
Trawls fished in the Northeast EEZ Offshore Management Area 3 (LMA3) excluding the 2/3 overlap	Black, Green.
Northeast Region, Other Trap/Pot gear	
Massachusetts Restricted Area	Red.
Northern Nearshore	Red.
Northern Inshore State	Red.
Stellwagen Bank/Jeffreys Ledge Restricted Area	Red.
Great South Channel Restricted Area overlapping with LMA 2 and/or Outer Cape	Red.
Exempt Rhode Island state waters (single traps)	Red and Blue.
Exempt Massachusetts state waters in LMA 1 (single traps)	Red and White.
Exempt Massachusetts state waters in LMA 2 (single traps)	Red and Black.
Exempt Massachusetts state waters in Outer Cape (single traps)	Red and Yellow.
Isles of Shoals, ME (single traps)	Red and Orange.
Great South Channel Restricted Area overlapping with LMA 2/3 and/or LMA 3	Black.
Jordan Basin	Black and Purple (LMA 3), Red and Purple (LMA 1)
Jeffreys Ledge	Red and Green.
Trap/Pot Gear	
Southern Nearshore	Orange.
Southeast Restricted Area North (state Waters)	Blue and Orange.
Southeast Restricted Area North (Federal Waters)	Green and Orange.
Offshore	Black.
Gillnet excluding shark gillnet	
Cape Cod Bay Restricted Area	Green.
Stellwagen Bank/Jeffreys Ledge Restricted Area	Green.
Great South Channel Restricted Area	Green.
Great South Channel Restricted Sliver Area	Green.
Other Northeast Gillnet Waters	Green.
Jordan Basin	Green and Yellow.
Jeffreys Ledge	Green and Black.
Mid/South Atlantic Gillnet Waters	Blue.
Southeast U.S. Restricted Area South	Yellow.
Other Southeast Gillnet Waters	Yellow.
Shark Gillnet (with webbing of 5″ or greater)	
Southeast U.S. Restricted Area South	Green and Blue.
Southeast Monitoring Area	Green and Blue.
Other Southeast Waters	Green and Blue.

* For dual permitted vessels, state regulations will determine whether green marks can remain on gear being fished in state waters.

(c) *Restrictions applicable to trap/pot gear in regulated waters*—(1) *Universal trap/pot gear requirements.* In addition to the gear marking requirements listed in paragraph (b) of this section and the area-specific measures listed in paragraphs (c)(2) through (14) of this section, all trap/pot gear in regulated waters, including the Northern Inshore State Trap/Pot Waters Area, must comply with the universal gear requirements listed in paragraphs (c)(1)(i) through (iii) of this section; [1]

[1] Fishermen are also encouraged to maintain their buoy lines to be as knot-free as possible. Splices are considered to be less of an entanglement threat and are thus preferable to knots.

(i) *No buoy line floating at the surface.* No person or vessel may fish with trap/pot gear that has any portion of the buoy line floating at the surface at any time when the buoy line is directly connected to the gear at the ocean bottom. If more than one buoy is attached to a single buoy line or if a high flyer and a buoy are used together on a single buoy line, floating line may be used between these objects;

(ii) *No wet storage of gear.* Trap/pot gear must be hauled out of the water at least once every 30 days; and

(iii) *Groundlines.* All groundlines must be composed entirely of sinking line. The attachment of buoys, toggles, or other floatation devices to groundlines is prohibited.

(2) *Area specific gear requirements.* Trap/pot gear must be set according to the requirements outlined in paragraphs (c)(2)(i) through (iii) of this section and in the table to paragraph (c)(2)(iv) of this section;

(i) *Single traps and multiple-trap trawls.* All traps must be set according to the configuration outlined in the table to paragraph (c)(2)(iv) of this section. Trawls up to and including five traps must only have one buoy line unless specified otherwise in the table to paragraph (c)(2)(iv) of this section;

(ii) *Buoy line weak links.* With the exception of Northeast Region lobster and Jonah crab trap/pot trawls, all buoys, flotation devices and/or weights (except traps/pots, anchors, and leadline woven into the buoy line), such as surface buoys, high flyers, radar reflectors, subsurface buoys, toggles, window weights, etc., must be attached to the buoy line with a weak link placed either as close to each individual buoy, flotation device and/or weight as operationally feasible, or at the base of the surface system where the surface system attaches to the single buoy line, and that meets the following specifications;

(A) *Weak link breaking strengths.* The breaking strength of the weak links must not exceed the breaking strength listed in paragraph (c)(2)(iv) of this section for a specified management area;

(B) *Approved weak links.* The weak link must be chosen from the following list approved by NMFS: Swivels, plastic weak links, rope of appropriate breaking strength, hog rings, rope stapled to a buoy stick, or other materials or devices approved in writing by the Greater Atlantic Regional Administrator. An outreach guide illustrating the techniques for making weak links is available from the Greater Atlantic Regional Administrator upon request and posted on the Atlantic Large Whale Take Reduction Plan website *Fisheries.NOAA.gov/ALWTRP; and*

(C) *Clean breaks.* Weak links must break cleanly leaving behind the bitter end of the line. The bitter end of the line must be free of any knots when the weak link breaks. Splices are not considered to be knots for the purposes of this paragraph (c)(2)(ii)(C);

(iii) *Weak buoy lines and weak insertion devices.* Beginning May 1, 2022, all lobster and Jonah crab trap/pot buoy lines in the management areas and configurations outlined in the table to paragraph (c)(2)(iv) of this section must use weak line or must insert weak devices along the buoy line as described in the table to paragraph (c)(2)(iv). The weak line and weak insert devices must meet the following specifications;

(A) *Breaking strength.* The breaking strength of the weak buoy lines and weak insertion devices must not exceed 1,700 lb (771 kgs);

(B) *Approved devices and distance between weak insertions.* Weak insertion devices must be inserted in the specified intervals from the surface system and must be devices chosen from the following list approved by NMFS, including any rope no thinner than 5/16 inch (8 mm) diameter that is engineered to break at 1,700 lb (771 kg) or less in a color contrasting with the primary buoy line and 3 feet (91.4 cm) or longer spliced on either end into the primary buoy line. Splices that achieve nearly the manufactured breaking strength include but are not limited to: Three or more tuck splices, an eye to loop with 3 or more tuck splices, or a butt splice. A 3-foot long hollow braided sleeve such as those known as the South Shore Sleeve installed over a parted buoy line is approved. A plastic weak link engineered to break at 1700 lb (771 kg) or less in a color that contrasts with the buoy line and with the breaking strength imprinted on the weak link is approved. The Greater Atlantic Regional Administrator will approve other materials, devices, or configurations inserted according to specifications approved in writing by the Greater Atlantic Regional Administrator. An outreach guide illustrating the techniques for making weak insert devices is available from the Greater Atlantic Regional Administrator upon request and posted on the Atlantic Large Whale Take Reduction Plan website *Fisheries.NOAA.gov/ALWTRP; and*

(C) *Clean breaks.* Weak line and weak inserts must break cleanly leaving behind the bitter end of the line. The bitter end of the line must be free of any knots when the weak insert breaks. Splices are not considered to be knots for the purposes of this paragraph (c)(2)(iii)(D).

(iv) *Table of area specific trap/pot gear requirements.*

TABLE 10 TO PARAGRAPH (c)(2)(iv)

Mgmt area; location	Minimum number traps/trawl	Minimum number of weak rope or weak insertion configuration
Northeast Region Lobster and Jonah Crab Trap/Pot, Applicable beginning May 1, 2022		
Northern Inshore State; Maine Zones A, B, F, G exempt waters to 3 miles.	3 (1 buoy line)	Weak line for the top 50 percent of the buoy line or one weak insertion device at 50 percent buoy line length from top.
Northern Inshore State; Maine Zones C, D, and E exempt waters to 3 miles.	2 (1 buoy line) or 4 (2 buoy lines)	Weak line for the top 50 percent of the buoy line or one weak insertion device at 50 percent buoy line length from top.
Northern Nearshore: Maine Zone A East 3 to 12 miles.	10 (1 buoy line) or 20 (2 buoy lines).	Weak line for the top 33 percent of the buoy line or one weak insertion device at 33 percent buoy line length from top.
Northern Nearshore: Maine Zone A West 3 to 6 miles.	4 (1 buoy line) or 8 (2 buoy lines)	Weak line for the top 50 percent of the buoy line or two weak insertion devices, one at 25 percent and one at 50 percent buoy line length from top.
Northern Nearshore: Maine Zone A West 6 to 12 miles.	8 (1 buoy line) or 15 (2 buoy lines)	Weak line for the top 50 percent of the buoy line or two weak insertion devices, one at 25 percent and one at 50 percent buoy line length from top.

TABLE 10 TO PARAGRAPH (c)(2)(iv)—Continued

Mgmt area; location	Minimum number traps/trawl	Minimum number of weak rope or weak insertion configuration
Northern Nearshore: Maine Zone B 3 to 6 miles	5 (1 buoy line)	Weak line for the top 50 percent of the buoy line or two weak insertion devices, one at 25 percent and one at 50 percent buoy line length from top.
Northern Nearshore: Maine Zone C, D, E 3 to 6 miles.	5 (1 buoy line) or 10 (2 buoy lines)	Weak line for the top 50 percent of the buoy line or two weak insertion devices, one at 25 percent and one at 50 percent buoy line length from top.
Northern Nearshore: Maine Zone F and G 3 to 6 miles.	5 (1 buoy line) or 10 (2 buoy lines)	Weak line for the top 33 percent of the buoy line or one weak insertion device at 33 percent buoy line length from top.
Northern Nearshore: Maine Zone B, D, and E 6 to 12 miles.	5 (1 buoy line) or 10 (2 buoy lines)	Weak line for the top 50 percent of the buoy line or two weak insertion devices, one at 25 percent and one at 50 percent buoy line length from top.
Northern Nearshore: Maine Zone C 6 to 12 miles	10 (1 buoy line) or 20 (2 buoy lines).	Weak line for the top 50 percent of the buoy line or two weak insertion devices, one at 25 percent and one at 50 percent buoy line length from top.
Northern Nearshore: Maine Zone F 6 to 12 miles	5 (1 buoy line) or 10 (2 buoy lines)	Weak line for the top 33 percent of the buoy line or one weak insertion device at 33 percent buoy line length from top.
Northern Nearshore: Maine Zone G 6 to 12 miles	10 (1 buoy line) or 20 (2 buoy lines).	Weak line for the top 33 percent of the buoy line or one weak insertion device at 33 percent buoy line length from top.
Northern Inshore State and Massachusetts Restricted Area; Massachusetts State Waters [2].	No minimum number of traps per trawl. Trawls up to and including 3 or fewer traps must only have one buoy line.	Weak inserts every 60 feet (18.3 m) in top 75 percent of line or full weak line through top 75 percent of line.
Northern Inshore State and Massachusetts Restricted Area; Other Massachusetts State Waters.	2 (1 buoy line) Trawls up to and including 3 or fewer traps must only have one buoy line.	Weak inserts every 60 feet (18.3 m) in top 75 percent of line or full weak line through top 75 percent of line.
Northern Inshore State; New Hampshire State Waters.	No minimum trap/trawl	Weak line for the top 50 percent of the buoy line or one weak insertion device at 50 percent buoy line length from top.
Northern Nearshore; New Hampshire and Massachusetts (3–6 miles).	10	Weak line for the top 50 percent of the buoy line or two weak insertion devices, one at 25 percent and one at 50 percent buoy line length from top.
Northern Nearshore, Massachusetts Restricted Area, and Stellwagen Bank/Jeffreys Ledge Restricted Area; LMA 1 (6–12 miles).	15	Weak line for the top 50 percent of the buoy line or two weak insertion devices, one at 25 percent and one at 50 percent buoy line length from top.
Northern Nearshore and LMA1 Restricted Area; LMA1 (12+ miles).	25	Weak line for the top 33 percent of the buoy line or one weak insertion device at 33 percent buoy line length from top.
Northern Inshore State, Massachusetts Restricted Area, and Massachusetts South Island Restricted Area; OC and LMA1/OC Overlap(0–3 miles).	No minimum number of traps per trawl.	Weak inserts every 60 ft (18.3 m) in top 75 percent of line or full weak line through top 75 percent of line.
Northern Nearshore and Massachusetts Restricted Area; OC (3–12 miles).	15	Weak line for the top 50 percent of the buoy line or two weak insertion devices, one at 25 percent and one at 50 percent buoy line length from top.
Northern Nearshore and Great South Channel Restricted Area; OC (12+ miles).	20	Weak line for the top 33 percent of the buoy line or one weak insertion device at 33 percent buoy line length from top.
Northern Inshore State; RI State Waters	No minimum number of traps per trawl.	Weak inserts every 60 feet (18.3 m) in top 75 percent of line or full weak line through top 75 percent of line.
Northern Nearshore; LMA 2 (3–12 miles)	10	Weak inserts every 60 feet (18.3 m) in top 75 percent of line or full weak line through top 75 percent of line.
Northern Nearshore, Great South Channel Restricted Area, and Massachusetts South of Island Restricted Area; LMA 2 (12+ miles).	20	Weak inserts every 60 feet (18.3 m) in top 75 percent of line or full weak line through top 75 percent of line.
Offshore, Great South Channel Restricted Area, and Massachusetts South Island Restricted Area; LMA 2/3 Overlap (12+ miles).	20	Weak inserts every 60 feet (18.3 m) in top 75 percent of line or full weak line through top 75 percent of line.
Northeast Region Offshore waters including Great South Channel Restricted Area, and Massachusetts South Island Restricted Area, with the exception of the Georges Basin and South Georges 50 Fathom Restricted Areas; LMA 3 including LMA3-only vessels fishing in 2/3 overlap.	45	Weak line for the top 75 percent of one buoy line.
Northeast Region Offshore waters Georges Basin Restricted Area.	50	Weak line for the top 75 percent of the buoy line.

TABLE 10 TO PARAGRAPH (c)(2)(iv)—Continued

Mgmt area; location	Minimum number traps/trawl	Minimum number of weak rope or weak insertion configuration
Northeast Region Offshore waters South Georges 50 Fathom Restricted Area.	35	Weak line for the top 75 percent of the buoy line.
Other Trap/Pot		
Northern Inshore State; Maine State and Pocket Waters [1].	2 (1 buoy line)	≤600 lb.
Northern Nearshore; Maine Zones A–G (3–6 miles) [1]	3 (1 buoy line)	≤600 lb.
Northern Nearshore; Maine Zones A–C (6–12 miles) [1].	5 (1 buoy line)	≤600 lb.
Northern Nearshore; Maine Zones D–G (6–12 miles) [1].	10	≤600 lb.
Northern Nearshore, Offshore, and LMA1 Restricted Area; Maine Zones A–E (12+ miles).	15	≤600 lb (≤1500 lb in offshore, 2,000 lb if red crab trap/pot).
Northern Nearshore, Offshore, and LMA1 Restricted Area; Maine Zones F–G (12+ miles).	15 (Mar 1–Oct 31) 20 (Nov 1–Feb 28/29).	≤600 ls (≤1500 lb in offshore, 2,000 ls if red crab trap/pot).
Northern Inshore State and Massachusetts Restricted Area; Massachusetts State Waters [2].	No minimum number of traps per trawl. Trawls up to and including 3 or fewer traps must only have one buoy line.	≤600 lb.
Northern Inshore State, Massachusetts Restricted Area, and Massachusetts South Island Restricted Area; Other Massachusetts State Waters.	2 (1 buoy line) Trawls up to and including 3 or fewer traps must only have one buoy line.	≤600 lb.
Northern Inshore State; New Hampshire State Waters.	No minimum number of traps per trawl.	≤600 lb.
Northern Nearshore and Massachusetts Restricted Area and Stellwagen Bank/Jeffreys Ledge Restricted Area; LMA 1 (3–12 miles).	10	≤600 lb.
Northern Nearshore and LMA1 Restricted Area; LMA 1 (12+ miles).	20	≤600 lb.
Northern Inshore State and Massachusetts Restricted Area; LMA1/OC Overlap (0–3 miles).	No minimum number of traps per trawl.	≤600 lb.
Northern Inshore State and Massachusetts Restricted Area; OC (0–3 miles).	No minimum number of traps per trawl.	≤600 lb.
Northern Nearshore and Massachusetts Restricted Area; OC (3–12 miles).	10	≤600 lb.
Northern Nearshore and Great South Channel Restricted Area; OC (12+ miles).	20	≤600 lb.
Northern Inshore State; Rhode Island State Waters	No minimum number of traps per trawl.	≤600 lb.
Northern Nearshore, and Massachusetts South Island Restricted Area; LMA 2 (3–12 miles).	10	≤600 lb.
Northern Nearshore, Great South Channel Restricted Area; LMA 2 (12+ miles).	20	≤600 lb.
Northeast Offshore and Great South Channel Restricted Area, and Massachusetts South Island Restricted Area; LMA 2/3 Overlap (12+ miles).	20	≤1500 lb (2,000 lb if red crab trap/pot).
Northeast Offshore waters, Great South Channel Restricted Area, and Massachusetts South Island Restricted Area; LMA 3 (12+ miles).	20	≤1500 lb (2,000 lb if red crab trap/pot).
Southern Nearshore; LMA 4,5,6	No minimum number of traps per trawl.	≤600 lb.
Southeast U.S. Restricted Area North [3] Florida State Waters.	1	≤200 lb.
Southeast U.S. Restricted Area North; [3] Georgia State Waters.	1	≤600 lb.
Southeast U.S. Restricted Area North; [3] South Carolina State Waters.	1	≤600 lb.
Southeast U.S. Restricted Area North; [3] Federal Waters off Florida, Georgia, South Carolina.	1	≤600 lb.

[1] The 6-mile line, pocket waters, and Maine Zones are defined in paragraphs (a)(2)(iii) through (v) of this section.
[2] Massachusetts State waters as defined as paragraph (a)(3)(ii)(E) of this section.
[3] See paragraph (f)(1) of this section for description of area.

(3) *Massachusetts Restricted Area*—(i) *Area.* The Massachusetts Restricted Area is bounded landward by the Massachusetts shoreline, from points MRA1 through MRA3 bounded seaward by the designated Massachusetts state waters boundary, and then bounded by a rhumb line connecting points MRA3 through MRA11 in order as detailed in table 11 to paragraph (c)(3)(i);

TABLE 11 TO PARAGRAPH (c)(3)(i)

Point	N lat.	W long.
MRA1	42°52.32′	70°48.98′
MRA2	42°52.58′	70°43.94′
MRA3	42°12′	70°38.69′
MRA4	42°12′	70°30′
MRA5	42°30′	70°30′
MRA6	42°30′	69°45′
MRA7	41°56.5′	69°45′
MRA8	41°21.5′	69°16′
MRA9	41°15.3′	69°57.9′
MRA10	41°20.3′	70°00′
MRA11	41°40.2′	70°00′

(ii) *Closure to fishing with buoy lines.* From February 1 to April 30, it is prohibited to fish with, set, or possess trap/pot gear in the area in this paragraph (c)(3)(i) of this section unless it is fished without buoy lines or with buoy lines that are stored on the bottom until it can be remotely released for hauling, or it is stowed in accordance with § 229.2 of this chapter. Authorizations for fishing without buoy lines must be obtained if such fishing would not be in accordance with surface marking requirements of §§ 697.21 and 648.84 of this title or other applicable fishery management regulations. The minimum number of trap/trawl gear configuration requirements specified in paragraph (c)(2)(iv) of this section remain in effect unless an exemption to those requirements is authorized.

(iii) *Area-specific gear or vessel requirements.* From May 1 through January 31, no person or vessel may fish with or possess trap/pot gear in the Massachusetts Restricted Area unless that gear complies with the gear marking requirements specified in paragraph (b) of this section, the universal trap/pot gear requirements specified in paragraph (c)(1) of this section, and the area-specific requirements listed in paragraph (c)(2) of this section, or unless the gear is stowed as specified in § 229.2.

(4) *South Island Restricted Area*—(i) *Area.* The South Island Restricted Area is bounded by the following points connected by rhumb lines in the order listed, and bounded on the north by the shoreline of Nantucket, Massachusetts.

TABLE 12 TO PARAGRAPH (c)(4)(i)

Point	N lat.	W long.
SIRA1	41°20.00′ N	71°19.00′ W
SIRA2	41°20.00′ N	69°30.00′ W
SIRA3	40°30.00′ N	69°30.00′ W
SIRA4	40°30.00′ N	71°19.00′ W
SIRA	41°20.00′ N	71°19.00′ W

(ii) *Closure to fishing with buoy lines.* From February 1 to April 30, it is prohibited to fish with, set, or possess trap/pot gear in the area in paragraph (c)(4)(i) of this section unless it is fished without buoy lines or with buoy lines that are stored on the bottom until they can be remotely released for hauling, or the trap/pot gear is stowed in accordance with § 229.2. Authorizations for fishing without buoy lines must be obtained if such fishing would not be in accordance with surface marking requirements of 50 CFR 697.21 and 648.84. The minimum number of trap/trawl gear configuration requirements specified in paragraph (c)(2)(iv) of this section remain in effect unless an exemption to those requirements is authorized.

(iii) *Area-specific gear or vessel requirements.* From May 1 through January 31, no person or vessel may fish with or possess trap/pot gear in the Massachusetts South Island Restricted Area unless that gear complies with the gear marking requirements specified in paragraph (b) of this section, the universal trap/pot gear requirements specified in paragraph (c)(1) of this section, and the area-specific requirements listed in paragraph (c)(2) of this section, or unless the gear is stowed as specified in § 229.2.

(5) *Great South Channel Restricted Trap/Pot Area*—(i) *Area.* The Great South Channel Restricted Trap/Pot Area consists of the area bounded by the following points.

TABLE 13 TO PARAGRAPH (c)(5)(i)

Point	N lat.	W long.
GSC1	41°40′	69°45′
GSC2	41°0′	69°05′
GSC3	41°38′	68°13′
GSC4	42°10′	68°31′
GSC1	41°40′	69°45′

(ii) *Closure to fishing with buoy lines.* From April 1 through June 30, it is prohibited to fish with, set, or possess trap/pot gear in the area in paragraph (c)(5)(i) of this section unless it is fished without buoy lines or with buoy lines that are stored on the bottom until they can be remotely released for hauling, or the trap/pot gear is stowed in accordance with § 229.2. Authorizations for fishing without buoy lines must be obtained if such fishing would not be in accordance with surface marking requirements of 50 CFR 697.21 and 648.84.

(iii) *Area-specific gear or vessel requirements.* From July 1 through March 31, no person or vessel may fish with or possess trap/pot gear in the Great South Channel Restricted Trap/Pot Area unless that gear complies with the gear marking requirements specified in paragraph (b) of this section, the universal trap/pot gear requirements specified in paragraph (c)(1) of this section, and the area-specific requirements listed in paragraph (c)(2) of this section, or unless the gear is stowed as specified in § 229.2.

(6) *Lobster Management Area One Restricted Area*—(i) *Area.* The Lobster Management Area One Restricted Area (LMRA1) is bounded by the following points connected by rhumblines in the order listed.

TABLE 14 TO PARAGRAPH (c)(6)(i)

Point	N lat.	W long.
LMA1RA 1	43°06′	69°36.77′
LMA1RA 2	43°44′	68°21.6′
LMA1RA 3	43°32.68′	68°17.27′
LMA1RA 4	42°53.52′	69°32.16′
LMA1RA 1	43°06′	69°36.77′

(ii) *Restrictions to fishing with buoy lines.* From October 1 to January 31, it is prohibited to fish with, set, or possess trap/pot gear in the area in paragraph (c)(6)(i) of this section unless it is fished without buoy lines or with buoy lines that are stored on the bottom until they can be remotely released for hauling, or the trap/pot gear is stowed in accordance with § 229.2. Authorizations for fishing without buoy lines must be obtained if such fishing would not be in accordance with surface marking requirements of 50 CFR 697.21 and 648.84. The minimum number of trap/trawl gear configuration requirements specified in paragraph (c)(2)(iv) of this section remain in effect unless an exemption to those requirements is authorized.

(iii) *Area-specific gear or vessel requirements.* From February 1 through September 30, no person or vessel may fish with or possess trap/pot gear in the LMA 1 Restricted Area unless that gear complies with the gear marking requirements specified in paragraph (b) of this section, the universal trap/pot gear requirements specified in paragraph (c)(1) of this section, and the area-specific requirements listed in paragraph (c)(2) of this section, or unless the gear is stowed as specified in § 229.2.

(7) *Stellwagen Bank/Jeffreys Ledge Restricted Area*—(i) *Area.* The Stellwagen Bank/Jeffreys Ledge Restricted Area includes all Federal waters of the Gulf of Maine, except those designated as the Massachusetts Restricted Area in paragraph (c)(3) of this section, that lie south of 43°15′ N lat. and west of 70°00′ W long.

(ii) *Year round area-specific gear or vessel requirements.* No person or vessel may fish with or possess trap/pot gear in the Stellwagen Bank/Jeffreys Ledge Restricted Area unless that gear complies with the gear marking requirements specified in paragraph (b) of this section, the universal trap/pot gear requirements specified in paragraph (c)(1) of this section, and the area-specific requirements listed in paragraph (c)(2) of this section, or unless the gear is stowed as specified in § 229.2.

(8) *Georges Basin Restricted Area* (i) *Area.* The Georges Basin Restricted Area (GBRA) referred to in paragraph (c)(2)(iv) of this section is bounded by rhumb lines connecting the following points in the order listed in table 15 to paragraph (c)(8)(i).

TABLE 15 TO PARAGRAPH (c)(8)(i)

Point	N lat.	W long.
GBRA 1	42°03.00′	67°40.02′
GBRA 2	42°30.00′	67°40.02′
GBRA 3	42°30.00′	67°27.00′
GBRA 4	42°09.30′	67°08.70′
GBRA 1	42°03.00′	67°40.02′

(iii) *Area-specific gear or vessel requirements.* Beginning May 1 2022, no person or vessel may fish with or possess trap/pot gear in the Georges Basin Restricted Area unless that gear complies with the gear marking requirements specified in paragraph (b) of this section, the universal trap/pot gear requirements specified in paragraph (c)(1) of this section, and the area-specific requirements listed in paragraph (c)(2) of this section, or unless the gear is stowed as specified in § 229.2.

(9) *South Georges 50 Fathom Restricted Area*—(i) *Area.* The South Georges 50 Fathom Restricted Area curve line referred to in paragraph (c)(2)(iv) of this section is an area bounded in the south by the 40 degree southern border of the Northeast Region, bounded seaward by the EEZ, and bounded in the north by rhumb lines connecting the following points in the order listed in table 16 to paragraph (c)(9)(i).

TABLE 16 TO PARAGRAPH (c)(9)(i)

Point	N lat.	W long.
SGRA 1	40°00.00′	71°49.86′
SGRA 2	40°06.47′	71°24.69′
SGRA 3	40°06.49′	71°24.62′
SGRA 4	40°20.82′	71°03.52′
SGRA 5	40°20.89′	71°03.42′
SGRA 6	40°21.16′	70°35.17′
SGRA 7	40°21.16′	70°35.02′
SGRA 8	40°16.84′	70°07.34′
SGRA 9	40°16.81′	70°07.17′
SGRA 10	40°09.92′	69°40.43′
SGRA 11	40°09.87′	69°40.25′
SGRA 12	40°14.72′	69°12.77′

TABLE 16 TO PARAGRAPH (c)(9)(i)—Continued

Point	N lat.	W long.
SGRA 13	40°14.74′	69°12.63′
SGRA 14	40°19.83′	68°45.19′
SGRA 15	40°19.86′	68°45.05′
SGRA 16	40°31.55′	68°21.25′
SGRA 17	40°31.63′	68°21.10′
SGRA 18	40°34.09′	67°52.94′
SGRA 19	40°34.11′	67°52.76′
SGRA 20	40°38.45′	67°24.98′
SGRA 21	40°38.46′	67°24.90′
SGRA 22	40°50.05′	67°00.91′
SGRA 23	40°50.14′	67°00.73′
SGRA 24	41°00.10′	66°35.45′
SGRA 25	41°00.21′	66°35.18′
SGRA 26	41°14.84′	66°21.82′

(ii) *Area-specific gear or vessel requirements.* Beginning May 1, 2022, no person or vessel may fish with or possess trap/pot gear in the South Georges 50 Fathom Restricted Area unless that gear complies with the gear marking requirements specified in paragraph (b) of this section, the universal trap/pot gear requirements specified in paragraph (c)(1) of this section, and the area-specific requirements listed in paragraph (c)(2) of this section, or unless the gear is stowed as specified in § 229.2.

(10) *Offshore Trap/Pot Waters Area—(i) Area.* The Offshore Trap/Pot Waters Area includes all Federal waters of the EEZ Offshore Management Area known as Lobster Management Area 3, including the area known as the Area 2/3 Overlap and Area 3/5 Overlap as defined in the American Lobster Fishery regulations at 50 CFR 697.18, with the exception of the Great South Channel Restricted Trap/Pot Area, Southeast Restricted Area, Georges Basin Restricted Area, South Georges 50 Fathom Restricted Area, and extending south along the 100-fathom (600-ft or 182.9-m) depth contour from 35°14′ N lat. South to 27°51′ N lat., and east to the eastern edge of the EEZ.

(ii) *Year-round area-specific gear or vessel requirements.* No person or vessel may fish with or possess trap/pot gear in the Northeast Region portion of Offshore Trap/Pot Waters Area that overlaps an area from the U.S./Canada border south to a straight line from 41°18.2′ N lat., 71°51.5′ W long. (Watch Hill Point, RI) south to 40°00′ N lat., and then east to the eastern edge of the EEZ, unless that gear complies with the gear marking requirements specified in paragraph (b) of this section, the universal trap/pot gear requirements specified in paragraph (c)(1) of this section, and the area-specific requirements listed in paragraph (c)(2) of this section, or unless the gear is stowed as specified in § 229.2.

(iii) *Seasonal area-specific gear or vessel requirements.* From September 1 to May 31, no person or vessel may fish with or possess trap/pot gear in the Offshore Trap/Pot Waters Area that overlaps an area bounded on the north by a straight line from 41°18.2′ N lat., 71°51.5′ W long. (Watch Hill Point, RI) south to 40°00′ N lat. and then east to the eastern edge of the EEZ, and bounded on the south by a line at 32°00′ N lat., and east to the eastern edge of the EEZ, unless that gear complies with the gear marking requirements specified in paragraph (b) of this section, the universal trap/pot gear requirements specified in paragraph (c)(1) of this section, and area-specific requirements in paragraph (c)(2) of this section or unless the gear is stowed as specified in § 229.2.

(iv) *Seasonal area-specific gear or vessel requirements.* From November 15 to April 15, no person or vessel may fish with or possess trap/pot gear in the Offshore Trap/Pot Waters Area that overlaps an area from 32°00′ N lat. south to 29°00′ N lat. and east to the eastern edge of the EEZ, unless that gear complies with the gear marking requirements specified in paragraph (b) of this section, the universal trap/pot gear requirements specified in paragraph (c)(1) of this section, the area-specific requirements in paragraph (c)(2) of this section or unless the gear is stowed as specified in § 229.2.

(v) *Seasonal area-specific gear or vessel requirements.* From December 1 to March 31, no person or vessel may fish with or possess trap/pot gear in the Offshore Trap/Pot Waters Area that overlaps an area from 29°00′ N lat. south to 27°51′ N lat. and east to the eastern edge of the EEZ, unless that gear complies with the gear marking requirements specified in paragraph (b) of this section, the universal trap/pot gear requirements specified in paragraph (c)(1) of this section, the area-specific requirements in paragraph (c)(2) in this section, or unless the gear is stowed as specified in § 229.2.

(11) *Northern Inshore State Trap/Pot Waters Area*—(i) *Area.* The Northern Inshore State Trap/Pot Waters Area includes the state waters of Rhode Island, Massachusetts, New Hampshire, and Maine, with the exception of Massachusetts Restricted Area and those waters exempted under paragraph (a)(3) of this section. Federal waters west of 70°00′ N lat. in Nantucket Sound are also included in the Northern Inshore State Trap/Pot Waters Area.

(ii) *Year-round area-specific gear or vessel requirements.* No person or vessel may fish with or possess trap/pot gear in the Northern Inshore State Trap/Pot Waters Area unless that gear complies with the gear marking requirements specified in paragraph (b) of this section, the universal trap/pot gear requirements specified in paragraph (c)(1) of this section, the area-specific requirements in paragraph (c)(2) of this section or unless the gear is stowed as specified in § 229.2.

(12) *Northern Nearshore Trap/Pot Waters Area*—(i) *Area.* The Northern Nearshore Trap/Pot Waters Area includes all Federal waters of EEZ Nearshore Management Area 1, Area 2, and the Outer Cape Lobster Management Area (as defined in the American Lobster Fishery regulations at 50 CFR 697.18), with the exception of the Great South Channel Restricted Trap/Pot Area, Massachusetts Restricted Area, Stellwagen Bank/Jeffreys Ledge Restricted Area, and Federal waters west of 70°00′ N lat. in Nantucket Sound (included in the Northern Inshore State Trap/Pot Waters Area) and those waters exempted under paragraph (a)(3) of this section.

(ii) *Year-round area-specific gear or vessel requirements.* No person or vessel

may fish with or possess trap/pot gear in the Northern Nearshore Trap/Pot Waters Area unless that gear complies with the gear marking requirements specified in paragraph (b) of this section, the universal trap/pot gear requirements specified in paragraph (c)(1) of this section, the area-specific requirements in paragraph (c)(2) of this section, or unless the gear is stowed as specified in § 229.2.

(13) *Southern Nearshore Trap/Pot Waters Area*—(i) *Area.* The Southern Nearshore Trap/Pot Waters Area includes all state and Federal waters that fall within EEZ Nearshore Management Area 4, EEZ Nearshore Management Area 5, and EEZ Nearshore Management Area 6 (as defined in the American Lobster Fishery regulations in § 697.18 of this title, and excluding the Area 3/5 Overlap), and inside the 100-fathom (600-ft or 182.9-m) depth contour line from 35°30′ N lat. south to 27°51′ N lat. and extending inshore to the shoreline or exemption line, with the exception of those waters exempted under paragraph (a)(3) of this section and those waters in the Southeast Restricted Area defined in paragraph (f)(1) of this section.

(ii) *Year-round area-specific gear or vessel requirements.* No person or vessel may fish with or possess trap/pot gear in the Southern Nearshore Trap/Pot Waters Area that is east of a straight line from 41°18.2′ N lat., 71°51.5′ W long. (Watch Hill Point, RI) south to 40°00′ N lat., unless that gear complies with the gear marking requirements specified in paragraph (b) of this section, the universal trap/pot gear requirements specified in paragraph (c)(1) of this section, the area-specific requirements in paragraph (c)(2) of this section or unless the gear is stowed as specified in § 229.2.

(iii) *Seasonal area-specific gear or vessel requirements.* From September 1 to May 31, no person or vessel may fish with or possess trap/pot gear in the Southern Nearshore Trap/Pot Waters Area that overlaps an area bounded on the north by a straight line from 41°18.2′ N lat., 71°51.5′ W long. (Watch Hill Point, RI) south to 40°00′ N lat. and then east to the eastern edge of the EEZ, and bounded on the south by 32°00′ N lat., and east to the eastern edge of the EEZ, unless that gear complies with the gear marking requirements specified in paragraph (b) of this section, the universal trap/pot gear requirements in paragraph (c)(1) of this section, the area-specific requirements in paragraph (c)(2) of this section or unless the gear is stowed as specified in § 229.2.

(iv) *Seasonal area-specific gear or vessel requirements.* From November 15 to April 15, no person or vessel may fish with or possess trap/pot gear in the Southern Nearshore Trap/Pot Waters Area that overlaps an area from 32°00′ N lat. south to 29°00′ N lat. and east to the eastern edge of the EEZ, unless that gear complies with the gear marking requirements specified in paragraph (b) of this section, the universal trap/pot gear requirements specified in paragraph (c)(1) of this section, the area-specific requirements in paragraph (c)(2) of this section or unless the gear is stowed as specified in § 229.2.

(v) *Seasonal area-specific gear or vessel requirements.* From December 1 to March 31, no person or vessel may fish with or possess trap/pot gear in the Southern Nearshore Trap/Pot Waters Area that overlaps an area from 29°00′ N lat. south to 27°51′ N lat. and east to the eastern edge of the EEZ, unless that gear complies with the gear marking requirements specified in paragraph (b) of this section, the universal trap/pot gear requirements specified in paragraph (c)(1) of this section, the area-specific requirements in paragraph (c)(2) of this section or unless the gear is stowed as specified in § 229.2.

(14) *Restrictions applicable to the red crab trap/pot fishery*—(i) *Area.* The red crab trap/pot fishery is regulated in the waters identified in paragraphs (c)(10)(i) and (c)(14)(i) of this section.

(ii) *Year-round area-specific gear or vessel requirements.* No person or vessel may fish with or possess red crab trap/pot gear in the area identified in paragraph (c)(14)(i) of this section that overlaps an area from the U.S./Canada border south to a straight line from 41° 18.2′ N lat., 71°51.5′ W long. (Watch Hill Point, RI) south to 40°00′ N lat., and then east to the eastern edge of the EEZ, unless that gear complies with the gear marking requirements specified in paragraph (b) of this section, the universal trap/pot gear requirements specified in paragraph (c)(1) of this section, the area-specific requirements in paragraph (c)(2) of this section or unless the gear is stowed as specified in § 229.2.

(iii) *Seasonal area-specific gear or vessel requirements.* From September 1 to May 31, no person or vessel may fish with or possess red crab trap/pot gear in the area identified in paragraph (c)(14)(i) of this section that overlaps an area bounded on the north by a straight line from 41°18.2′ N lat., 71°51.5′ W long. (Watch Hill Point, RI) south to 40°00′ N lat. and then east to the eastern edge of the EEZ, and bounded on the south by a line at 32°00′ N lat., and east to the eastern edge of the EEZ, unless that gear complies with the gear marking requirements specified in paragraph (b) of this section, the universal trap/pot gear requirements specified in paragraph (c)(1) of this section, the area-specific requirements in paragraph (c)(2) of this section or unless the gear is stowed as specified in § 229.2.

(iv) *Seasonal area-specific gear or vessel requirements.* From November 15 to April 15, no person or vessel may fish with or possess red crab trap/pot gear in the area identified in paragraph (c)(14)(i) of this section that overlaps an area from 32°00′ N lat. south to 29°00′ N lat. and east to the eastern edge of the EEZ, unless that gear complies with the gear marking requirements specified in paragraph (b) of this section, the universal trap/pot gear requirements specified in paragraph (c)(1) of this section, the area-specific requirements in paragraph (c)(2) of this section or unless the gear is stowed as specified in § 229.2.

(v) *Seasonal area-specific gear or vessel requirements.* From December 1 to March 31, no person or vessel may fish with or possess red crab trap/pot gear in the area identified in paragraph (c)(14)(i) of this section that overlaps an area from 29°00′ N lat. south to 27°51′ N lat. and east to the eastern edge of the EEZ, unless that gear complies with the gear marking requirements specified in paragraph (b) of this section, the universal trap/pot gear requirements specified in paragraph (c)(1) of this section, the area-specific requirements in paragraph (c)(2) of this section or unless the gear is stowed as specified in § 229.2.

PART 697—ATLANTIC COASTAL FISHERIES COOPERATIVE MANAGEMENT

■ 4. The authority citation for 50 CFR part 697 continues to read as follows:

Authority: 16 U.S.C. 5101 *et seq.*

■ 5. In § 697.21, revise paragraphs (b)(2) and (3) to read as follows:

§ 697.21 Gear identification and marking, escape vent, maximum trap size, and ghost panel requirements.

* * * * *

(b) * * *

(2) With the exception of Maine permitted vessels fishing in Maine Lobster Management Zones that can fish up to ten lobster traps on a trawl with one buoy line, lobster trap trawls consisting of more than three traps must have a radar reflector and a single flag or pennant on the westernmost end (marking the half compass circle from magnetic south through west, to and including north), while the easternmost end (meaning the half compass circle

from magnetic north through east, to and including south) of an American lobster trap trawl must be configured with a radar reflector only. Standard tetrahedral corner radar reflectors of at least 8 inches (20.32 cm) (both in height and width, and made from metal) must be employed. (A copy of a diagram showing a standard tetrahedral corner radar reflector is available upon request to the Office of the Greater Atlantic Regional Administrator.)

(3) No American lobster trap trawl shall exceed 1.5 nautical miles (2.78 km) in length, as measured from radar reflector to radar reflector, except in the EEZ Offshore Management Area 3 where the maximum length of a lobster trap trawl shall not exceed 1.75 nautical miles (3.24 km).

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