

**MODIFICATIONS TO THE
HARBOR PORPOISE TAKE REDUCTION PLAN**

ENVIRONMENTAL ASSESSMENT

SEPTEMBER 2013

**US DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGIONAL OFFICE**

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1 INTRODUCTION

In accordance with the National Environmental Policy Act (NEPA), this Environmental Assessment (EA) evaluates potential environmental impacts of a rule proposed by NOAA's National Marine Fisheries Service (NMFS) under Section 118 of the Marine Mammal Protection Act (MMPA) to modify the regulations implementing the Harbor Porpoise Take Reduction Plan (Plan). The Plan affects the Gulf of Maine/Bay of Fundy (GOM/BOF) stock of harbor porpoises in Northeast Category I commercial gillnet fisheries. The proposed modification would remove a faulty consequence closure regulatory system in which seasonal gillnet closures are implemented if observed harbor porpoise bycatch rates exceed target rates for two consecutive years.

1.1 Background

Management of interactions between commercial gillnet gear and the Gulf of Maine/Bay of Fundy (GOM/BOF) stock of harbor porpoises (*Phocoena phocoena*) began in the late 1980s with the formation of the Harbor Porpoise Working Group by NOAA's National Marine Fisheries Service (NMFS). After the 1994 amendments to the Marine Mammal Protection Act (MMPA), NMFS created the Harbor Porpoise Take Reduction Team (Team) and developed the first Harbor Porpoise Take Reduction Plan (Plan) which published as a final rule on December 2, 1998 (63 FR 66464). The Team consists of stakeholders representing state and federal government agencies, fishing industry, conservation organizations, and researchers. For a more detailed management history of the Plan and management of harbor porpoise fishery interactions, please see the Environmental Assessment (EA) accompanying the 2010 amendments to the Plan (NMFS 2009).

NMFS published the most recent amendment to the Plan on February 19, 2010 (75 FR 7383) based largely on consensus recommendations from the Team. This amendment included the spatial and temporal expansion of the Plan's existing management areas, the incorporation of new management areas, and the implementation of a consequence closure strategy.

The consequence closure strategy closes specific areas to gillnet gear during certain times of the year if observed average bycatch rates exceed specified target bycatch rates over the course of two consecutive management seasons. Three areas were chosen to become closed if observed bycatch rates exceeded the target rates: the Coastal Gulf of Maine, Eastern Cape Cod, and Cape Cod South Expansion Consequence Closure Areas (Figure 1). The Coastal Gulf of Maine Consequence Closure would be triggered if the observed average bycatch rates of harbor porpoises in the Mid-Coast, Stellwagen Bank, and Massachusetts Bay Management Areas (combined) exceed the target bycatch rate of 0.031 harbor porpoise takes/metric tons of fish landed (takes/mtons) (1 harbor porpoise taken per 71,117 pounds of fish landed) after two consecutive management seasons. If triggered, this area would prohibit the use of gillnet gear during the months of October and November, which historically have been the months with the highest amount of observed harbor porpoise bycatch. When this area is not closed, the seasonal requirements of the three overlapping management areas would remain in effect, including the March gillnet closure in the Massachusetts Bay Management Area. The Cape Cod South Expansion and Eastern Cape Cod Consequence Closures would be triggered if the observed

average bycatch rate of harbor porpoises in the Southern New England Management Area exceeded the target bycatch rate of 0.023 takes/mtons (1 harbor porpoise taken per 95,853 pounds of fish landed) after two consecutive management seasons. If triggered, both areas would prohibit the use of gillnet gear annually from February 1 through April 30. When the consequence closure areas are not closed, the seasonal pinger requirements of the overlapping Southern New England Management Area would remain in effect.

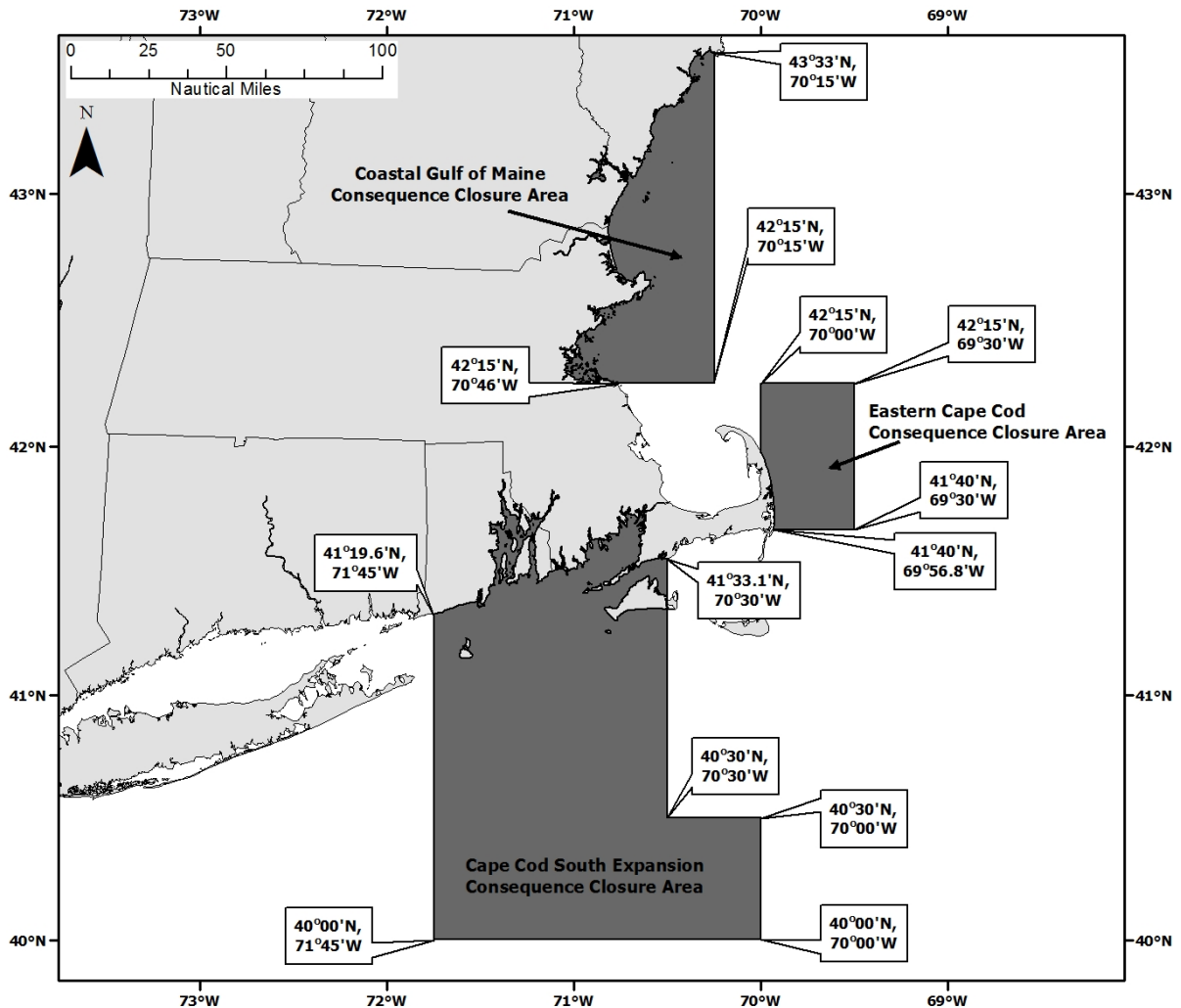


Figure 1: Harbor Porpoise Take Reduction Plan Consequence Closure Areas

Consequence closure area monitoring began with the start of first full management season after implementation of the 2010 amendments. The first monitoring season occurred from September 15, 2010 through May 31, 2011, and the second occurred from September 15, 2011 through May 31, 2012. The two-year average observed harbor porpoise bycatch rate for the areas associated with the Coastal Gulf of Maine Consequence Closure exceeded the target bycatch rate, triggering the implementation of the Coastal Gulf of Maine Closure Area. During management seasons two and three (September 15, 2011 through May 31, 2012 and September 15, 2012 through May 31, 2013, respectively), the two-year average observed harbor porpoise bycatch rate for the area associated with the Cape Cod South Expansion and Eastern Cape Cod Consequence Closure

Areas exceeded the target bycatch rate, triggering the implementation of these two closures on February 1, 2014.

In April 2012, NMFS sent letters to gillnet fishermen notifying them that NMFS planned to implement the Coastal Gulf of Maine Closure Area beginning October 1, 2012. Following this notification, in August 2012, NMFS received a letter from a fishing industry representative requesting that the agency review harbor porpoise bycatch and fishing effort information in the coastal Gulf of Maine area after the 2010 implementation of the amendments to the Plan, and New England Multispecies Fishery Management Plan Amendment 16, which implemented sector management and greatly modified the way New England groundfish fishermen could fish. The letter specifically requested that the timing of the closure be shifted from October and November to mid-February through March. This request highlighted a conservation benefit to harbor porpoises that would occur by shifting the timing, as well as an economic benefit for the fishing industry by allowing them to fish in the area during October and November. In considering this request, NMFS examined available harbor porpoise bycatch and fishing information from 2010 through 2012. Within the boundaries of the Coastal Gulf of Maine Closure Area, harbor porpoise bycatch data indicated that a higher number of observed takes occurred during the spring, particularly in February and March, than in the fall (October and November), equating to a higher estimated total bycatch in the spring. Additionally, the bycatch rate during the spring was higher than in the fall. As a result, NMFS published a notice in the *Federal Register* on October 3, 2012 (77 FR 60319) that shifted the effective period of the Coastal Gulf of Maine Closure Area from October 1 through November 30, 2012 to February 1 through March 31, 2013.

NMFS convened the Team for meetings to discuss potential amendments to the Plan in November 2012, February 2013, April 2013 (workgroup), May 2013, and June 2013. Among the topics discussed at the Team meetings was the appropriateness of the consequence closure strategy. The Team agreed that the consequence area target bycatch rates no longer accurately reflect compliant bycatch rates in New England. This occurred because the target bycatch rates for the consequence closure areas have been exceeded while coastwide harbor porpoise bycatch rates are declining below the stock's PBR level. At the same time, the GOM/BOF harbor porpoise stock abundance is has remained stable. Although the Team has expressed dissatisfaction with the Consequence Closure Strategy, during the Team's deliberations in 2012 and 2013 they have not been able to agree upon a viable management alternative. However, immediate action is necessary because the current Plan regulations require the Coastal Gulf of Maine Closure Area to go into effect beginning October 1, 2013 despite the widespread acknowledgement that the trigger used to implement this closure is faulty and takes from the most recent year of data are below the stock's PBR level (and below the 5-year average according to preliminary data). In addition, bycatch data indicate that the bycatch trigger associated with the Cape Cod South Expansion and Eastern Cape Cod Consequence Closure Areas has been exceeded for two consecutive years, triggering these closures beginning February 1, 2014.

At the conclusion of the May 2013 meeting, a majority of the Team voted in favor of NMFS eliminating the current consequence closure strategy from the Plan and continuing Team discussions on how best to proceed with an alternative management strategy, should one be

necessary if harbor porpoise bycatch and/or non-compliance increase in the short-term. The Team can continue deliberations on an alternative consequence strategy and may, but is not required to, implement additional consequences in the future. The Team also recommended that NMFS modify the “Other Special Measures” provision of the Plan to include a consultation with the Team before action is taken to amend the Plan (CONCUR 2013a; CONCUR 2013b).

The Team also discussed increasing enforcement efforts to ensure compliance with pinger requirements in New England. NMFS is investing resources toward increased enforcement operations such as patrols with state enforcement partners and the U.S. Coast Guard.

In addition, the time and area of fishing activity of observed gillnet vessels will be identified along with other relevant information, including vessel homeport, registration number etc., to facilitate enforcement action.

NMFS will work with Office of Law Enforcement (OLE) to evaluate any potential enforcement efforts, which may include at-sea operations in collaboration with state joint enforcement agreement partners and the U.S. Coast Guard as well as dockside activities.

1.2 Purpose and Need

The purpose of NMFS’ action is to consider whether the current consequence closure strategy in the Harbor Porpoise Take Reduction Plan is appropriate. This action is needed because new information indicates that current consequence closure system is ineffective, resulting in economic penalties to compliant and noncompliant fishermen indiscriminately. NMFS data suggests that all three of the previously implemented consequence closure areas have been triggered unnecessarily, resulting in economic harm to fishermen and little protection to harbor porpoises. Thus, NMFS determined it was necessary to consider taking immediate action.

1.2.1 Scope of the Analysis

The scope of this analysis is limited to the preferred alternative of removing the consequence closure strategy from the Plan compared to the status quo alternative of leaving the consequence closure strategy intact. Development of the preferred alternative was done by NMFS in collaboration with the Team. Complete descriptions of the alternatives can be found in Section 2 (Summary of Management Alternatives) of this EA and detailed analyses of the effects of these alternatives can be found in Section 4 (Impacts of the Management Alternatives).

2 SUMMARY OF MANAGEMENT ALTERNATIVES

2.1 Alternative 1: No Action (Status Quo)

Alternative 1, “No Action,” leaves the current Plan intact with no regulatory changes proposed. This includes a combination of pinger requirements and gillnet closure areas in New England and a combination of gear modification requirements and gillnet closure areas in the mid-Atlantic. NMFS (2009), which is incorporated by reference, contains a complete description of

the current Plan management measures, including how they were developed and a detailed description of seasonal requirements for gillnet fishermen in both New England and mid-Atlantic waters.

Alternative 1 also leaves the current consequence closure strategy intact. This includes the implementation of the Coastal Gulf of Maine Closure Area, which was first triggered in 2012 due to harbor porpoise bycatch rates exceeding the target rate from 2010-2012. This also includes the implementation of the Cape Cod South Expansion and Eastern Cape Cod Closure Areas, which are due to be triggered beginning February 1, 2014 due to harbor porpoise bycatch rates exceeding the target rate from 2011-2013.

Alternative 1 includes non-regulatory measures of increased enforcement efforts as discussed in Section 1.2 of this document.

2.2 Alternative 2: Preferred

Alternative 2, the preferred alternative, includes all of the measures of Alternative 1 with the addition of two regulatory amendments to the Plan based on broad agreement among the Team.

The first proposed amendment to the Plan is the removal of the consequence closure strategy. This was discussed extensively at Team meetings throughout late 2012 and 2013 as discussed in Section 1.2 of this document. The consequence closure strategy as implemented in 2010 has resulted in the improper triggering of three consequence closure areas. Since the advent of sector management under the Northeast Multispecies Fishery Management Plan, overall fishing effort has generally remained the same and the number of harbor porpoise caught has decreased well below levels allowed by the MMPA. However, because fish landings have also decreased, the observed bycatch rates increased above the closure area target bycatch rates resulting in the triggering of the closures. The bycatch rate triggers were intended to function such that triggering the consequence closures would correlate with the overall bycatch of harbor porpoise being above limits set under the MMPA. Given the overall reductions in fish landings, however, this correlation no longer holds true and the consequence closures have been triggered unnecessarily. As a result, the Team largely agreed to the removal of the consequence closure strategy from the Plan before the Coastal Gulf of Maine Closure Area goes into effect on October 1, 2013.

Further, the consequence closures were not intended to be relied upon for conservation benefits. The intent of the consequence closure strategy was to provide an incentive for the gillnet industry to comply with pinger requirements in areas with historically high harbor porpoise bycatch levels resulting from relatively low levels of compliance. Consequence closures were intended only as a backstop measure in place to ensure compliance with pinger requirements. Because the number of harbor porpoise caught has decreased well below levels allowed by the MMPA and because NMFS has shifted its focus to a revised enforcement effort aimed at ensuring greater pinger compliance, a new compliance strategy is not necessary at this time.

The second regulatory amendment in Alternative 2 is the addition of language in 229.33(f)(2), known as the "Other Special Measures" provision, to clarify that NMFS must consult with the

Team prior to using this provision to make amendments to the Plan. This recommendation received unanimous support by the Team and originated following the use of the Other Special Measures provision by NMFS in 2012 to shift the timing of the Coastal Gulf of Maine Closure Area from October and November 2012 to February and March 2013. This recommendation is also consistent with a proposed amendment to the Other Special Measures provision of the Atlantic Large Whale Take Reduction Plan (78 FR 42654, July 16, 2013) which would require NMFS to consult with the Atlantic Large Whale Take Reduction Team prior to making amendments using this provision.

3 DESCRIPTION OF THE AFFECTED ENVIRONMENT

This section describes the environment of the area affected by the preferred alternative and no action alternative. NMFS identified three Valued Ecosystem Components (VECs) which are the important environmental facets used to evaluate impacts in this EA. These VECs include:

- Physical environment
- Biological environment (protected species and harbor porpoise)
- Fishing community

3.1 Physical Environment

The management measures considered in this assessment affect the GOM/BOF stock of harbor porpoises, which occur in U.S. waters from the northern GOM south to the North Carolina/South Carolina border (Waring *et al.* 2013). Harbor porpoises are found from the coastline to deep waters (Westgate *et al.* 1998), although they occur primarily over the continental shelf. Generally, the measures evaluated in this EA refer to New England. For management purposes, the Plan divides the New England and Mid-Atlantic fisheries using the 72° 30' W longitude line as a boundary. Although gillnet fishermen from New England and the Mid-Atlantic states cross this line, it is a familiar demarcation to them, first established in 1993 to regulate mesh exemptions in the summer flounder FMP (50 CFR 648.104 (b)(1)) and to identify the Mid-Atlantic Exemption Area in the Multispecies FMP (50 CFR 648.80 (c) (5)). Biogeographically, however, and for the purposes of describing the physical environment, these waters are broadly separated into the GOM and Mid-Atlantic Bight. Descriptions of the physical environment given in this section are paraphrased largely from the report by Stevenson *et al.* (2004) entitled, "Characterization of the fishing practices and marine benthic ecosystems of the northeast U.S. shelf, and an evaluation of the potential effects of fishing on essential habitat."

The waters of the GOM represent the northern boundary of harbor porpoise habitat in U.S. waters. The GOM is bordered on the east, north and west by the coasts of Nova Scotia, New Brunswick, and the New England states, respectively. To the south, the GOM is open to the North Atlantic Ocean. The interior of the GOM is characterized by deep basins, separated by irregular topography that includes a number of shallow ridges, ledges, and banks. The distribution of benthic species and assemblages of species in the GOM are strongly related to the bottom type and the properties of the water overlying the bottom.

South of Massachusetts, the Mid-Atlantic Bight extends to Cape Hatteras, North Carolina. The Mid-Atlantic area is influenced by large estuaries, including the Chesapeake Bay (the largest estuary in the United States), Narragansett Bay, Long Island Sound, Hudson River, Delaware Bay, and the almost continuous band of estuaries behind the barrier beaches from New York to Virginia. The southern edge of the region includes the estuarine complex of Currituck, Albemarle, and Pamlico Sounds, a 2,500 square mile system of large interconnecting sounds behind the fringing islands of the Outer Banks of North Carolina.

Offshore of the coast, the shelf area along the Mid-Atlantic Bight averages about 100 km (60 mi) in width, reaching a maximum of 150 km (30 mi) near Georges Bank, off New England, and a minimum of 50 km (30 mi) offshore of Cape Hatteras. The shelf is characterized by depths ranging from a few meters to approximately 60 m (198 ft), with a variety of bottom habitat types. The continental slope at the offshore edge of the shelf generally has smooth mud bottoms in water depths of 100–200 m (328–656 ft). Current speeds are strongest at the narrowest part of the shelf, where wind-driven current variability is highest. Water temperatures vary greatly in the Mid-Atlantic by season, causing the changes in distribution of harbor porpoises, their prey, and other marine species.

South of Cape Hatteras, North Carolina, the warm Gulf Stream Current originating in the Caribbean, flows along the eastern coastline until it is deflected by the Cape, pushing the current further offshore as it continues north until it merges with the Labrador Current. The physiographic and hydrographic characteristics of Cape Hatteras and associated proximity of the Gulf Stream to the shore causes the major climactic and resultant zoogeographic faunal change south of Hatteras. The seasonal changes in the Gulf Stream's distance from the coast in winter months influences the occasional occurrence of harbor porpoises in this southern extent of their range.

3.2 Biological Environment

3.2.1 Protected Species

Table 1 lists protected species found in the waters offshore of the Northeast U.S. and notes which species may be affected by the fisheries and management actions under the Plan. Note that while all marine mammals are protected under MMPA, a number of the large whales are also listed as endangered under the ESA. Additionally, all sea turtles, two species of birds and two species of fish are found within the environment of the waters of the Mid-Atlantic Bight, southern New England, and the GOM, and are listed as endangered or threatened under the ESA. Critical habitat for right whales also occurs within New England waters affected by the Plan. However, as discussed above, gillnets are believed to have little effect on habitat, and no measures are proposed that would increase their likelihood of affecting critical habitat or associated species.

Many of the protected species that occur in New England and Mid-Atlantic waters have never been observed as bycatch in gillnet fisheries in the areas and seasons managed under the Plan and analyzed in this EA, nor have they been documented as killed by possible gillnet interactions in stranding records. These species are listed as “not likely to be affected” in Table 1. Although these species occur within the geographical area influenced by the Plan, they may inhabit areas

other than those affected by the Plan, or may migrate through the area at times when implementing regulations are not in place

The potential effects of pingers on protected and marine species, such as endangered large whales, sea turtles, pinnipeds, and certain fish species (such as American shad, Atlantic herring, blueback herring, and alewives) were analyzed in Section 4.3 of the Plan Final EA that analyzed the effects of implementing the Plan (NMFS 1998). Through scientific research and over fifteen years of implementation in waters off New England, these analyses have shown that the 10 kHz sound emitted by pingers does not adversely affect other marine species nor does it affect the catch of target species. It was concluded that the impacts of pingers on these marine organisms would be low or not likely to occur.

For the purposes of the proposed action to remove the consequence closure strategy, the species generally affected by the Plan are not affected by this specific action. Removing the consequence closures, continuing pinger use, and implementing additional law enforcement measures will negligibly affect other protected species.

Information regarding marine mammal distribution, abundance, and sources of injury and mortality can be found in the most recent marine mammal Stock Assessment Report (Waring *et al.* 2013), prepared as required by Section 117 of the 1994 amendments to the MMPA.

Table 1: Protected Species Found in New England and Mid-Atlantic Waters

Effects of the Plan	Category	Species	Status
Not likely to be affected by the Harbor Porpoise Take Reduction Plan	Large Whales	Blue whale (<i>Balaenoptera musculus</i>)	Endangered
		Sei whale (<i>Balaenoptera borealis</i>)	Endangered
		Sperm whale (<i>Physeter macrocephalus</i>)	Endangered
	Smaller Cetaceans	Spotted and Striped dolphin (<i>Stenella spp.</i>)	Protected
		White-beaked dolphin (<i>Lagenorhynchus albirostris</i>)	Protected
		Pilot whale (<i>Globicephala spp.</i>)	Protected
		Dwarf sperm whale (<i>Kogia sima</i>)	Protected
		Pygmy sperm whale (<i>Kogia breviceps</i>)	Protected
		Cuvier's beaked whale (<i>Ziphius cavirostris</i>)	Protected
		Mesoplodon beaked whale (<i>Mesoplodon spp</i>)	Protected
	Birds	Piping plover (<i>Charadrius melodus</i>)	Endangered
		Roseate tern (<i>Sterna dougallii dougallii</i>)	Endangered
	Sea Turtles	Leatherback sea turtle (<i>Dermochelys coriacea</i>)	Endangered
Green sea turtle (<i>Chelonia mydas</i>)		Threatened	
Hawksbill sea turtle (<i>Eretmochelys imbricata</i>)		Endangered	
Fish	Atlantic salmon (<i>Salmo salar</i>)	Endangered	
	Shortnose sturgeon (<i>Acipenser brevirostrum</i>)	Endangered	
Potentially affected by the Harbor Porpoise Take Reduction	Large Whales	North Atlantic right whale (<i>Eubalaena glacialis</i>)	Endangered
		Humpback whale (<i>Megaptera novaeangliae</i>)	Endangered
		Fin whale (<i>Balaenoptera physalus</i>)	Endangered

Plan		Minke whale (<i>Balaenoptera acutorostrata</i>)	Endangered
	Smaller Cetaceans	Harbor porpoise (<i>Phocoena phocoena</i>)	Protected
		Bottlenose dolphin (<i>Tursiops truncatus</i>)	Protected
		Atlantic white-sided dolphin (<i>Lagenorhynchus acutus</i>)	Protected
		Common dolphin (<i>Delphinus delphis</i>)	Protected
		Risso's dolphin (<i>Grampus griseus</i>)	Protected
	Seals	Harbor seal (<i>Phoca vitulina</i>)	Protected
		Gray seal (<i>Halichoerus grypus</i>)	Protected
		Harp seal (<i>Pagophilus groenlandicus</i>)	Protected
		Hooded seal (<i>Cystophora cristata</i>)	Protected
	Sea Turtles	Kemp's ridley sea turtle (<i>Lepidochelys kempii</i>)	Endangered
		Loggerhead sea turtle (<i>Caretta caretta</i>)	Endangered
	Fish	Atlantic sturgeon (<i>Acipenser oxyrinchus oxyrinchus</i>)	Endangered

3.2.2 Harbor Porpoise

Harbor porpoises in the waters off of the eastern U.S. coast are considered to be part of the GOM/BOF stock, one of four harbor porpoise stocks found in the Western North Atlantic. NMFS proposed listing the harbor porpoise in 1993 primarily due to a high level of incidental take of harbor porpoises in sink gillnet fisheries along the Atlantic coast of the U.S. and Canada. Implementation of management measures to reduce the incidental take of harbor porpoise in both the U.S. and Canadian waters resulted in a determination in 1999 that listing was not necessary (NMFS 2001).

Waring *et al.* (2013) provides the following account of harbor porpoise distribution. During the summer months (July to September), harbor porpoises are concentrated in the northern GOM and southern BOF region, generally in waters less than 150 m (492 ft) deep (Gaskin 1977; Kraus *et al.* 1983; Palka 1995a; Palka 1995b), with a few sightings in the upper Bay of Fundy and on the northern edge of Georges Bank (Palka 2000). During the fall (October-December) and spring (April-June), harbor porpoises are widely dispersed from New Jersey to Maine, with lower densities farther north and south. They are seen from the coastline out to deep waters (>1800 m, (> 5906 ft) deep) although the majority of the population is found over the continental shelf. During winter (January to March), intermediate densities of harbor porpoises can be found in waters off New Jersey to North Carolina, and lower densities are found in waters off New York to New Brunswick, Canada. There does not appear to be a temporally coordinated migration or a specific migratory route to and from the Bay of Fundy region. However, during the fall, several satellite tagged harbor porpoises did favor the waters around the 92 m (302 ft) isobath, which is consistent with observations of high rates of incidental catches in this depth range (Read and Westgate 1997). There were two stranding records from Florida during the 1980s (Smithsonian strandings database) and one during 2003 (NE Regional Office/NMFS strandings and entanglement database), suggesting occasional, extralimital occurrence south of Cape Hatteras, North Carolina.

Since the most recent amendment to the Plan in 2010 when time/area closures and pinger requirements were expanded, harbor porpoise population abundance estimates have increased (Table 2). At the same time, estimated harbor porpoise human-caused mortality due to interactions with New England gillnet gear have steadily declined from 792 porpoises per year using data through 2009 down to 340 porpoises per year using data through 2012. When examining the 5-year average U.S. gillnet bycatch, estimates are below the Potential Biological Removal (PBR)¹ level for harbor porpoise for preliminary estimates through the years 2011 and 2012.

Table 2: Recent harbor porpoise PBR, population abundance, and bycatch estimates

	<i>Final Data through 2009¹</i>	<i>Final Data through 2010²</i>	<i>Preliminary Data through 2011³</i>	<i>Preliminary Data through 2012³</i>
Stock Abundance (Min-Max)	60,970–89,054	61,415-79,883	61,415-79,883	61,415-79,883
Potential Biological Removal	701	706	706	706
Annual U.S. Gillnet Bycatch	792	646	396	340
5-Year Average U.S. Gillnet Bycatch	877	786	671	630

¹ Waring *et al.* 2012

² Waring *et al.* 2013

³ C.D. Orphanides, pers. comm., September 16, 2013

3.3 Fishing Community

The regulations implementing the Plan in New England primarily affect sink gillnet gear managed under the Northeast Multispecies Fishery Management Plan (FMP). This section provides a brief overview of human communities of the Northeast Multispecies FMP. For a more detailed description of the affected fishing community, please see NEFMC (2013), the EA implementing Framework Adjustment 50 to the Northeast Multispecies FMP.

Overview of the Northeast Multispecies FMP

The Northeast Multispecies FMP is primarily managed through sectors; self-selecting groups of limited access groundfish permit holders that come together under a legally binding operations plan. Vessels not opting into a sector are common pool groundfishing vessels. At the start of the

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

2011 fishing year (May 1, 2011 – April 30, 2012), vessels operating within a sector were allocated about 98% of the total groundfish sub-allowable catch level (ACL), based on historical catch levels. Those vessels that opted to remain in the common pool were given access to about 2% of the groundfish sub-ACL based on their historic catch.

The overall trend over the last ten years has been a decreasing number of vessels with a limited access groundfish permit. By 2011 the total number of vessels with a limited access groundfish permit was 1,279, down from 1,400 in 2007. Of the 772 sector vessels issued a groundfish permit in 2011, 446 were considered active, and only 301 of those had revenue from at least one groundfish trip. Among common pool vessels, 366 were considered active, and only 121 vessels had made at least one groundfish trip. Vessels from both sectors and the common pool accounted for 142 vessels using gillnet gear in 2011 for a total of 8,577 gillnet trips.

During the first year of sector management, groundfish revenues from vessels with limited access groundfish permits in 2010, were \$83 million. This was lower than 2007 – 2009 nominal revenues which ranged from \$84.1 million in 2009 to \$90.1 million in 2008. By 2011 the groundfish revenues from vessels with limited access groundfish permits had risen to \$90.1 million. Non-groundfish revenues from 2007 – 2010 ranged from \$186.1 million in 2009 to \$211.5 million in 2010. Revenues from all species for 2011 totaled \$330.8 million, which compares to previous revenues that ranged from a low of \$271.1 million in 2009 to a high of \$298.2 million in 2007. Sector vessels accounted for about 71% of all revenue earned by limited access permitted vessels in 2011.

Community Characteristics

There are over 100 communities that are homeport to one or more Northeast groundfishing vessels. These ports occur throughout the coastal northeast and mid-Atlantic. Determining which fishing communities are “substantially dependent” on and “substantially engaged” in the groundfish fishery can be difficult. In recent amendments to the FMP, communities dependent on the groundfish resource have been categorized into primary and secondary port groups. Twenty four primary ports including Boothbay Harbor, Kennebunkport and Portland, ME, Portsmouth, NH, Gloucester and New Bedford, MA, Newport and Narragansett/Point Judith, RI, and Montauk, NY, were identified. For a complete list and full description of the primary ports, please see Appendix B of Framework Adjustment 50 to the Northeast Multispecies FMP (NEFMC 2013).

Relationship between the Plan and the Northeast Multispecies FMP

During the most recent amendment to the Plan in 2010, the target bycatch rates of porpoises taken per metric tons of fish landed (porpoises/mton) were established for the consequence closure strategy were established by examining the average bycatch rates for pinger compliant gillnet hauls from 1999 through 2007. Fishing activity during this time remained relatively consistent, making landings consistently the most reliable unit of effort from which bycatch rates could be calculated (NMFS 2009). However, when the groundfish sector management regime was implemented as part of changes to the Northeast Multispecies FMP that took effect on May 1, 2010, this correlation became inaccurate. When this occurred, bycatch rates increased while

actual numbers of harbor porpoises taken remained the same or even decreased. What resulted was inappropriate triggering of harbor porpoise consequence closures in specific areas while harbor porpoise bycatch is steadily declining overall. Harbor porpoise bycatch is now below PBR for the most recent three years' data and the 5-year average that is below PBR for the most recent two years' preliminary data. At the same time, recent harbor porpoise population trends have shown the stock size is stable.

4 IMPACTS OF THE MANAGEMENT ALTERNATIVES

4.1 Biological Impacts of the Alternatives

Biological impacts of the No Action alternative and the Preferred alternative were analyzed as part of the EA prepared in support of the 2010 amendments to the Plan (NMFS 2009). Since the biological impacts resulting from these alternatives were previously analyzed quantitatively in the 2009 EA, a comparison of those estimates is made qualitatively here. Although changes to the fishery have occurred since the 2010 final rule, these data can be used for comparative purposes to illustrate the difference in biological impacts between the Preferred Alternative and the No Action Alternative.

4.1.1 Biological Impacts of Alternative 1

Under Alternative 1 (No Action), the current Plan management regime consisting of time/area closures, pinger requirements (New England), gear modification requirements (mid-Atlantic), and consequence closures remains in place. Since the target bycatch rates for the areas subject to the consequence closures have both been exceeded over two consecutive management seasons, all three consequence closure areas are now in effect as part of the Plan. The biological impacts of the management measures included in this alternative, including projected harbor porpoise bycatch reduction over time, were estimated as part of the EA supporting the 2010 Plan amendments. That analysis projected that the current Plan would sufficiently reduce harbor porpoise bycatch to below the PBR level for harbor porpoises if the consequence closure areas did take effect. According to the EA supporting the 2010 Plan amendments, the estimated annual mortality due to northeast gillnets under this alternative ranged from 151–287 harbor porpoises (NMFS 2009).

4.1.2 Biological Impacts of Alternative 2

Under Alternative 2 (Preferred), the current Plan management regime remains in place, but without the implementation of the consequence closure strategy. In this alternative, the areas in which the consequence closure areas are scheduled to begin on October 1 and February 1 remain in effect with pinger requirements as part of the existing Plan management areas. The biological impacts of the management measures included in this alternative, including projected harbor porpoise bycatch reduction over time, were estimated as part of the EA supporting the 2010 Plan amendments (NMFS 2009). That analysis projected that the current Plan would sufficiently reduce harbor porpoise bycatch to below the PBR level for harbor porpoises even if the consequence closure areas did not take effect. According to the EA supporting the 2010 Plan

amendments, the estimated annual mortality due to northeast gillnets under this alternative ranged from 187–287 harbor porpoises (NMFS 2009). In addition, the potential effects of pingers on protected and marine species, such as endangered large whales, sea turtles, pinnipeds, and certain fish species (such as American shad, Atlantic herring, blueback herring, and alewives) were analyzed in Section 4.3 of the Plan Final EA that analyzed the effects of implementing the Plan (NMFS 1998) and summarized in section 3.2.1 of this action. It was concluded that the impacts of pingers on these marine organisms would be low or not likely to occur.

4.1.3 Comparison of Biological Impacts

The primary difference in biological impacts between the No Action and Preferred alternatives is the implementation of the consequence closures. According to the EA supporting the 2010 amendments to the Plan, the current Plan regulations were projected to reduce harbor porpoise bycatch to below the PBR level regardless of whether the consequence closures were implemented. According to the Team as summarized in that EA, the consequence closures were not intended to be relied upon for conservation benefits. The intent of the consequence closure strategy was to provide an incentive for the gillnet industry to comply with pinger requirements in areas with historically high harbor porpoise bycatch levels resulting from relatively low levels of compliance. Consequence closures were intended only as a backstop measure in place to ensure compliance with pinger requirements.

Recent preliminary bycatch estimates have shown that the current amended Plan has reduced harbor porpoise bycatch below the PBR level, before the triggering of any consequence closure areas. In addition, the projected harbor porpoise bycatch estimates in the 2009 EA indicated ranges of bycatch reduction for the No Action and Preferred alternatives that were largely within the same margin of error (151–287 harbor porpoises and 187–287 harbor porpoises, respectively) (NMFS 2009).

A consideration to make regarding the Preferred alternative is whether pinger compliance would decrease in the absence of a consequence closure regime. However, non-regulatory measures of increasing enforcement efforts is likely to assist in increasing compliance with pinger requirements as enforcement officials increase patrols in the affected areas and utilize the latest in-water and open-air pinger detection equipment.

With the removal of the Coastal Gulf of Maine, Cape Cod South Expansion, and Eastern Cape Cod Closure Areas proposed in the Preferred Alternative, another consideration to make is whether there is an increased risk of harbor porpoise bycatch. However, the existing Plan management areas that overlap the three consequence closures areas require that pingers be used on all gillnets set during the times and in the areas in which the consequence closures would be in effect. With an effective rate above 90% when deployed properly, gillnets with pingers in these areas are likely to be an effective mitigator of harbor porpoise bycatch (Kraus *et al.* 1997).

For these reasons, the Preferred alternative is not anticipated to result in any significant biological impacts to harbor porpoises when compared to the No Action alternative. Impacts to harbor porpoises under both alternatives are expected to be negligible and well below PBR.

4.2 Economic Impacts of the Alternatives

Economic impacts of the No Action alternative and the Preferred alternative were analyzed as part of the EA prepared in support of the 2010 amendments to the Plan (NMFS 2009). Since the economic impacts to gillnet fishermen resulting from these alternatives were previously analyzed quantitatively in the 2009 EA, a comparison of the economic impacts is made qualitatively here. Although changes to the fishery have occurred since the 2010 final rule, these data can be used for comparative purposes to illustrate the difference in economic impacts between the Preferred Alternative and the No Action Alternative.

4.2.1 *Economic Impacts of Alternative 1*

The 2009 EA estimated economic impacts of the No Action alternative (which was first implemented as the preferred alternative in the 2010 final rule) before and after triggering the three consequence closure areas. This EA estimated that triggering the three consequence closures (now the No Action alternative) would impact 29.7% (290) of the total gillnet fleet. Revenues for the affected vessels was also estimated to be reduced by 2-28% (\$2,600-\$26,400) and 1-25% (\$1,500-\$15,300) for small (<40ft) and large (>40ft) vessels, respectively (NMFS 2009).

4.2.2 *Economic Impacts of Alternative 2*

The Preferred alternative proposes to remove the regulations implementing the three consequence closure areas from the Plan and replace them with a non-regulatory revised Plan law enforcement strategy. Due to this, the Preferred alternative is not anticipated to impose any additional negative economic impacts to gillnet fishermen.

4.2.3 *Comparison of Economic Impacts*

Based on a comparison of estimates calculated as part of the 2009 EA supporting the 2010 final rule amending the Plan, the economic impacts of the No Action alternative exceed any anticipated economic impact of the Preferred alternative.

Both the Preferred alternative and the No Action alternative include the implementation of non-regulatory measures to increase enforcement efforts. This enforcement strategy requires no new restrictions and has been established to ensure compliance with current pinger requirements in New England. As a result, there are no economic impacts anticipated from the implementation of the revised Plan enforcement strategy.

For these reasons, the Preferred alternative to remove the consequence closure strategy from the Plan is not anticipated to result in any additional negative economic impacts to the commercial fishing industry and would result in minor positive economic impacts when compared to the No Action alternative.

4.3 Cumulative Impacts of the Alternatives

The Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR Part 1508.25) reference the need for a cumulative effects analysis (CEA). CEQ regulations define cumulative impacts as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other action.” The purpose of a CEA is to consider the effects of the Proposed Action combined with the effects of many other actions on the human environment. The CEA assesses impacts that would be missed if each action were evaluated separately. CEQ guidelines recognize that it is not practical to analyze the cumulative effects of an action from every conceivable perspective, but, rather, the intent is to focus on those effects that are truly meaningful. The CEA baseline condition consists of the present condition of the VECs (identified and discussed in Section 3 Description of the Affected Environment) plus the combined effects of past, present and reasonably foreseeable future actions (summarized below).

4.3.1 Geographic and Temporal Scope

The geographic scope of the cumulative effects analysis is based on the seasonal distribution of the Gulf of Maine (GOM)/Bay of Fundy stock of harbor porpoises within U.S. waters over the continental shelf from the northern GOM south to the North Carolina/South Carolina border (NMFS 2009, Section 3.1). Temporally, the baseline analysis considers primarily the period since implementation of HPTRP, effective January 1, 1999, and extends five years into the future. This timeframe was chosen because the Team plans to continue discussions on how best to proceed with an alternative management strategy for harbor porpoise. It is anticipated that a revised strategy would be developed and implemented in the next five years.

Past, Present, and Reasonably Foreseeable Future Actions

Detailed information on the past, present, and reasonably foreseeable future actions that may impact this action were evaluated as part of the cumulative effects assessment found in the environmental assessment prepared for the last substantial modification to the HPTRP (NMFS 2009). Much of that information remains applicable. The following provides a brief summary of the key findings from the 2009 environmental assessment, along with updates on the Northeast Multispecies FMP and the pending Omnibus Habitat Amendment.

Non-fishing Activities

Among the issues assessed were impacts to harbor porpoise from non-fishing activities, such as chemical, physical, and biological disturbances. These include wind energy development, other coastal development, dredging, and localized pollution, among others. Harbor porpoises are a ubiquitous species that can be found across a large range from nearshore waters to the continental shelf edge. They migrate seasonally according to prey availability between the Bay of Fundy and Cape Hatteras. Because harbor porpoises are not known to be dependent upon any particular biological, physical, or habitat requirements during any life stage, the impacts to this species from these localized non-fishing activities are thought to be minimal to the population as a whole.

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

Protected Species Management Actions

The 2009 cumulative effects assessment also evaluated impacts from protected species management actions, as follows:

ALWTRP – First implemented in 1997 and modified over time, the ALWTRP includes restrictions to gillnet fisheries, including the Northeast sink gillnet fishery, the Southeast Atlantic gillnet fishery, the Southeastern U.S. Atlantic shark gillnet fishery, and the Mid-Atlantic gillnet fishery. Regulations that may affect harbor porpoises include closure of the Cape Cod Bay Restricted Area to anchored gillnet fishing from January 1 through May 15 and the Great South Channel Restricted Gillnet Area from April 1 through June 30, which could affect harbor porpoise interactions favorably if effort is reduced, or unfavorably if effort shifts to areas of higher harbor porpoise abundance. Other gillnet restrictions throughout New England and the Mid-Atlantic include year-round or seasonal gear modifications, such as placement of weak links on gillnet gear designed to allow large whales to break free should they become entangled. These restrictions are not likely to affect harbor porpoises as they lack the strength and size to break free from gillnets.

BDTRP – Implemented in 2006, the BDTRP includes restrictions to the Mid-Atlantic gillnet fishery and eight other coastal fisheries operating within the dolphin's distributional range. The measures contained in the regulations include gillnet effort reduction, gear proximity requirements, gear or gear deployment modifications, and outreach and educational measures to reduce coastal bottlenose dolphin bycatch to below the stock's PBR level. Since the seasonal distribution of bottlenose dolphins only slightly overlaps the distribution of harbor porpoises, the measures implementing the BDTRP provide only marginal benefits to harbor porpoises.

Sea Turtle Mid-Atlantic Large Mesh Gillnet Restrictions – To address sea turtle strandings, in 2002 NMFS implemented seasonally adjusted gillnet closures of portions of the Mid-Atlantic Exclusive Economic Zone (EEZ) offshore of Virginia and North Carolina. The seasonally adjusted large mesh gillnet closure may reduce effort in Mid-Atlantic gillnet fisheries, or may divert effort into other times and areas. Coastal bottlenose dolphins and other warm water protected species that overlap in distribution with sea turtles may be beneficially affected by these gillnet restrictions. There is likely a negligible effect, however, on the bycatch of harbor porpoise, large whales and other protected species that occur in cooler waters.

Fishery Management Plan Activities

Monkfish FMP – Implemented in 1999, the fishery management actions of the Monkfish FMP constrain monkfish gillnet fishing effort in both the Mid-Atlantic and New England compared to

the potential pre-FMP unregulated growth. The FMP has a negligible impact or slight benefit on harbor porpoises and other protected species, as constrained gillnet effort may reduce the potential incidental take of harbor porpoises and other protected species. Continued stock growth remains likely, with a more stable fishery and increased community benefits due to larger trip limits forecasted in the future, although no great increase in fishing effort is anticipated.

Spiny Dogfish FMP – Although implementation of the Spiny Dogfish FMP in 2000 initially ended the directed dogfish fishery, resulting in reduced small mesh gillnet effort in New England and the Mid-Atlantic, increases to the quota, particularly from 2012 through the upcoming 2014 fishing year, has allowed for a directed dogfish fishery to redevelop. However, in 2012 the full quota was not harvested and landings data indicate that a similar trend will follow for 2013. NMFS has attempted to provide greater opportunity for the harvest of dogfish through the creation of exempted fishing areas in Cape Cod Bay and just to the east of Cape Cod. Vessels targeting dogfish in these areas are exempt from the Northeast multispecies regulations during certain times of the year. NMFS expects these exemptions to provide an increased incentive to target spiny dogfish in these areas, potentially redistributing effort from other areas. However, this increase in effort is expected to be offset by other more substantial reductions in effort in the groundfish fishery, such as reductions to the Eastern Georges Bank cod and Georges Bank yellowtail flounder quotas (NMFS 2013a). Furthermore, a lack of processor capability and a limited market for dogfish is thought to be reducing the demand, and thus effort, for dogfish.

While the declining quotas through the Spiny Dogfish FMP may have initially lead to a reduction in harbor porpoise and other protected species bycatch, any resultant increase in effort could result in minor increases in harbor porpoise and protected species bycatch. However, recent preliminary evaluation of NMFS observer data does not reflect an increase in harbor porpoise takes.

Herring FMP – Herring is an important forage species for harbor porpoises as well as most other marine mammals and many seabirds that occur in New England waters. The Herring FMP, implemented in March 1999, establishes annual catch limits distributed across seasons and areas, as well as effort control limits and spawning area closures in an attempt to prevent overfishing of the herring resource. While the Herring FMP does not affect gillnet fishing effort in New England or Mid-Atlantic waters, it has likely reduced the direct and indirect effects of the herring fishery on harbor porpoises.

Northeast Multispecies FMP – Heavily regulated since 1994, gillnet vessels in the groundfish fishery have a history of interacting with harbor porpoise and other marine mammals and sea turtles. Currently, the groundfish fishery operates primarily under sector management. A sector consists of three or more persons who hold limited access Northeast Multispecies vessel permits, voluntarily enter into a contract in which they self-select their members, and are granted an annual allocation of large-mesh multispecies fish. Sectors are a relatively new management tool in the Northeast Multispecies fishery. In 2004, Amendment 13 to the Northeast Multispecies FMP authorized the first sector. Amendment 16 to the FMP revised and expanded the sector program in 2010. NMFS approved 19 sectors to operate in FY 2012 (77 FR 26129). Sector enrollments for FY 2012 represented over 60 percent of eligible northeast groundfish multispecies permits and approximately 99 percent of the ACL for the entire fishery. Fishermen

who do not join a sector fish in the common pool. Vessels in the common pool are allocated a certain number of days-at-sea (DAS). Vessels that fish in the common pool are managed by a variety of input and effort controls such as DAS, trip limits, closed areas, minimum fish sizes, and gear restrictions.

Sector management appears to have changed how some vessels operate. As discussed in the 2013 environmental assessment for sectors (NMFS 2013b), each sector receives a total amount (in pounds) of fish it can harvest for each stock. This amount is the sector's annual catch entitlement (ACE). Because the annual ACE is dependent on the amount of the ACL for a given fishing year, the ACE may be higher or lower from year to year even if the sector's membership remained the same.

There were substantial shifts in ACE for various stocks between FY 2009 and FY 2012. There has also been a general decrease in trips, and catch for sector vessels. In addition, there has been a shift in effort out of the groundfish fishery into other fisheries. However, these changes may correlate to a certain extent with the decrease in ACL. Further, an assessment of gear types has shown that trips and catch fell substantially for gillnet vessels from 2009 through 2011, while gear days (i.e., a proxy for catch per unit effort) rose. Likewise, for vessels operating with trawl gear, trips fell and gear days rose slightly but catch also saw an increase.

Past, present, and reasonably foreseeable future actions under the Northeast Multispecies FMP have reduced effort in the Northeast multispecies gillnet fishery in a manner that reduces harbor porpoise bycatch, and the bycatch of other marine mammals, sea turtles, and protected species. Current and future actions will continue to rebuild groundfish stocks, ultimately benefiting the groundfish industry over the long-term. These benefits may not profit current participants, however, and in the near term, negative economic impacts to fishermen and their communities are likely.

Habitat Omnibus Essential Fish Habitat Amendment – The Omnibus Habitat Amendment has been under development since 2004. It includes a review and update of essential fish habitat designations, consideration of habitat areas of particular concern, an updated prey species list, and an update of non-fishing impacts. The document will also evaluate the effects of fishing on essential fish habitat and management measures to minimize the adverse effects of fishing. In 2011, during the development of the Omnibus Amendment, it was noted that there is considerable spatial overlap between the Northeast multispecies closed areas implemented under the Northeast Multispecies FMP and the current habitat areas which are closed to bottom tending mobile gears. Due to this overlap, the Council is considering whether to modify the Northeast multispecies closed areas in conjunction with the establishment of any new habitat closed areas.

Among the closure areas that could be modified or eliminated by the Omnibus Amendment is the year-round Western Gulf of Maine Habitat and Groundfish Closure Area. This closure area is considered by many to provide some level of protection to harbor porpoise. Although the Council has not chosen preferred alternatives for this action, a reduction in the size or elimination of this area could potentially result in an increase of interactions between vessels fishing with gillnet gear and harbor porpoise. Final action will not be implemented until 2014.

4.3.2 Cumulative Effects Analysis

Biological Impacts

As summarized above, NMFS has implemented numerous regulatory actions to reduce injuries and mortalities to protected species from gear interactions. Although incidental impacts from the ALWTRP, BDTRP, and Sea Turtle Mid-Atlantic Large Mesh Gillnet Restrictions were neutral to only minimally positive, overall impacts from the HPTRP and the proposed action were found to be effective at reducing the number of incidental takes to below PBR levels for harbor porpoise (see Section 4.1.3). These impacts, when combined with reductions in fishing effort through the implementation of recent groundfish management actions, have generally had positive effects on protected resources by limiting the amount of fishing gear used in their geographic range during the fishing year, which may result in reductions in the rates of gear interactions. A primary example of this impact would be through implementation of sector management to the Northeast Multispecies FMP which resulted in changes to some vessel operations with overall trends showing that trips and catch fell substantially for gillnet vessels.

Effort for many fisheries (monkfish and dogfish) in the near future is expected to remain constant or increase slightly. The exception would be the Northeast Multispecies FMP, which has experienced recent reductions for several key groundfish stocks. As a result, groundfish effort is not expected to increase in the near-term; however, possible changes to the habitat/groundfish closure areas could remove some protections for harbor porpoise, although the extent of this protection cannot yet be determined.

With the exception of the Omnibus Habitat Amendment, all other management actions described herein are likely to benefit or have negligible impacts on protected resources. Overall, the cumulative effects on harbor porpoises and other protected species are likely to be positive and non-significant or negligible.

Economic Impacts

Gear modifications, time and area closures, and mandated reductions in fishing effort have resulted in negative economic impacts to fishing communities. Management measures designed to benefit protected resources and restrict fishing effort have had negative economic effects on communities. Furthermore, while the establishment of ACLs through sectors with the ultimate goal of rebuilding groundfish stocks to sustainable levels will benefit fishing communities, given the depleted status of several groundfish stocks, this could take considerable time. Although recent revenues under sector management have risen slightly, these gains would be partially offset if the proposed action to eliminate the consequence closure areas is not approved.

Overall, the cumulative effects on fishing communities in the short-term are likely to be negative and non-significant or negligible. Fishing communities could experience positive effects in the long-term, however, because stocks are expected to rebuild and additional fishing opportunities will likely result from future actions beyond the temporal scope of this EA.

5 EXECUTIVE ORDER 12866 REVIEW

5.1 Determination of Significance under E.O. 12866

Under Executive Order 12866, a Regulatory Impact Review (RIR) fulfills the objective to enhance planning and coordination with respect to new and existing regulations. Since a July 2013 review of the proposed action by the U.S. Office of Management and Budget (OMB) determined that this action is not likely to impose a significant economic impact on a substantial number of small entities and therefore is not significant for the purposes of E.O. 12866.

5.2 Evaluation of Economic Impacts of the Management Alternatives

This section includes a brief comparative assessment of the economic impacts of the management alternatives based on findings from the 2009 EA that supported the 2010 amendments to the Plan. Although changes to the fishery have occurred since the 2010 final rule, these data can still be used for comparative purposes to illustrate the difference in economic impacts between the preferred action and the status quo. For example, the 2009 EA estimated economic impacts of the preferred alternative (which was adopted in the 2010 final rule) before and after triggering the three consequence closure areas. This EA estimated that triggering the three closures (now the status quo alternative) would impact 29.7% (290) of the total gillnet fleet. Revenues for the affected vessels was also estimated to be reduced by 2-28% (\$2,600-\$26,400) and 1-25% (\$1,500-\$15,300) for small (<40ft) and large (>40ft) vessels, respectively (NMFS 2009). By removing the regulations implementing these consequence closure areas from the Plan, the preferred alternative will prevent negative economic impacts from occurring.

For the reasons stated herein, the proposed amendment to the Harbor Porpoise Take Reduction Plan is not likely to impose a significant economic impact on a substantial number of small entities.

6 APPLICABLE LAWS AND REGULATIONS

6.1 Endangered Species Act

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

An informal Section 7 consultation was conducted on the original Plan in 1998 and concluded that the Plan was not likely to adversely affect any listed species under NMFS jurisdiction. An informal Section 7 consultation for this action has been completed and concluded that the changes to the regulations implementing the Plan do not constitute a modification to the operation of the Plan that would cause an effect to ESA-listed species or critical habitat not considered in previous consultations.

6.2 Marine Mammal Protection Act

The primary management objective of the MMPA is to maintain the health and stability of the marine ecosystem, with a goal of obtaining an optimum sustainable population of marine mammals within the carrying capacity of the habitat. Section 118 of the MMPA specifies that NMFS develop and implement TRPs to assist in the recovery or prevent the depletion of strategic marine mammal stocks that interact with Category I and Category II fisheries, which are fisheries with frequent (Category I) or occasional (Category II) serious injuries and mortalities of marine mammals. The goal is to reduce these takes incidental to fishing activities to levels below the PBR level, defined as the maximum number of animals, not including natural mortalities that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population. A discussion of the marine mammals found within the affected environment can be found in Section 3.2.

6.3 Paperwork Reduction Act

This action includes no new collection of information and further analysis is not required. The Proposed Action would require no additional reporting burdens by Northeast gillnet fishermen.

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

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

Although few studies have been conducted on the effects of Northeast and Mid-Atlantic gillnets on benthic habitats, EFH and associated benthic species and life stages are not considered to be particularly vulnerable to harm by sink gillnets (Stevenson *et al.* 2004). None of the proposed measures presented in Section 2 (Summary of Management Alternatives) of this draft EA are likely to modify fishing practices in a manner that would adversely affect EFH or HAPC. Therefore, an EFH consultation on the Proposed Action is not necessary.

6.5 Data Quality Act (Public Law 106-554)

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

Utility

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

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

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

Integrity

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

Information and data, including statistics that may be considered confidential, are used in this draft EA in the description of the fisheries and analysis of impacts associated with this document. This information is needed to assess the impacts of the alternatives considered as required under the National Environmental Policy Act (NEPA) and Regulatory Flexibility Act for the

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

Objectivity

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

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

6.6 Administrative Procedure Act

The Federal Administrative Procedure Act (APA) establishes procedural requirements applicable to informal rulemaking by Federal agencies. The purpose of the APA is to ensure public access to the Federal rulemaking process and to give the public notice and an opportunity to comment before the agency promulgates new regulations. NMFS is not requesting a waiver from the requirements of the APA for notice and comment on this rulemaking. However, NMFS is planning to waive the typical "cooling off" period after which the final rule is published but before the Plan amendments take effect. This will be done to prevent the inappropriate beginning of the Coastal Gulf of Maine Closure Area on October 1, 2013.

6.7 Coastal Zone Management Act

Section 307(c)(1) of the Federal Coastal Zone Management Act of 1972 requires that all Federal activities that affect any land or water use or natural resource of the coastal zone be consistent

with approved state coastal zone management programs to the maximum extent practicable. NMFS has determined that this action is consistent to the maximum extent practicable with the enforceable policies of approved Coastal Zone Management Programs of Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia, and North Carolina. Letters documenting NMFS' determination, along with this draft EA and proposed rule are being sent to the coastal zone management program offices of these states. Interested states are expected to provide comments prior to the close of the proposed rulemaking comment period and prior to final rulemaking.

6.8 Executive Order (E.O.) 13132 Federalism

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

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

6.9 Regulatory Flexibility Act

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

6.10 E.O. 12866 Regulatory Planning and Review

The purpose of E.O. 12866, otherwise known as Regulatory Planning and Review, is to enhance planning and coordination with respect to new and existing regulations. This E.O. requires the Office of Management and Budget to review regulatory programs that are considered to be

“significant.” A July 2013 review of the proposed action by OMB determined that this action is not significant for the purposes of E.O. 12866.

6.11 National Environmental Policy Act

6.11.1 Finding of No Significant Impact

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

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

No, the proposed action is expected to result in a negligible effect. Areas scheduled to be closed to gillnet fishing will be opened to gillnet gear equipped with pingers. Based on the effectiveness rate (over 90%) of pingers and NMFS non-regulatory measures increasing enforcement efforts to ensure pinger compliance, it is not anticipated that there will be any significant effect as a result of the proposed action (Kraus *et al.* 1997).

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

No, the proposed action cannot reasonably be expected to significantly affect public health or safety. Areas scheduled to be closed to gillnet fishing will be opened, which should lengthen the period of time in which fisherman can fish. This should reduce the likelihood of fishing in inclement weather. Also, fishermen previously seeking to transit through the coastal closures in order to fish outside of them would be allowed to fish further inshore, reducing time spent traveling.

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

The proposed action cannot be reasonably expected to result in substantial impacts to unique or ecologically critical areas. Right whale critical habitat, designated HAPCs, EFH for fish species, and the Stellwagen Bank National Marine Sanctuary all occur within the broad management areas of the Plan. Although few studies have been conducted on the effects of gillnets on benthic habitats, EFH and associated benthic species and life stages are not considered to be very vulnerable to harm by sink gillnets (Stevenson *et al.* 2004). Additionally, the structures that support the copepod and plankton abundance that provide the habitat's value to right whales are not likely to be affected by gillnets. Further, the proposed action is not likely to modify fishing practices

in a manner that would adversely affect EFH, HAPC, right whale critical habitat, or Stellwagen Bank National Marine Sanctuary.

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

The effects on the quality of the human environment are not likely to be highly controversial. The proposed action is based on the best available science and removes closure areas that were triggered inappropriately due to a broken correlation between harbor porpoise bycatch and metric tons of landed fish in the Gulf of Maine. This has occurred as harbor porpoise bycatch has significantly decreased coastwide to an estimated 340 porpoises per year in U.S. gillnet gear – well under the legal PBR limit of 706 porpoises per year.

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

The proposed action is not expected to result in uncertainty or unknown risks. The proposed action is simply the relieving of areas where fishermen have previously been allowed to fish but are scheduled to close beginning October 1, 2013. There is no uncertainty anticipated and there are no unknown risks expected.

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

The proposed action is not expected to establish a precedent for future actions or represent a decision about a future action. This action proposes to prevent improperly triggered closures from going into effect beginning on October 1, 2013 with no impact on future actions. However, the Team may consider additional regulations replacing or revising a consequence closure strategy in the future, but is not currently required to do so under the MMPA. Future management measures recommended by the Team are independent of the proposed action.

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

The proposed action is not related to other actions that when considered together will have individually insignificant but cumulative significant impacts. This action would merely suspend the consequence closure area scheduled to take effect October 1, 2013. Although modifications to the Plan may be considered in the future, no such action has been developed at this time.

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

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

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

The proposed action cannot reasonably be expected to significantly affect any endangered or threatened species or their critical habitat. As noted in Section 3.2.1 of this EA, the potential effects of pingers on protected and marine species, such as endangered large whales, sea turtles, pinnipeds, and certain fish species (such as American shad, Atlantic herring, blueback herring, and alewives) were analyzed in Section 4.3 of the Plan Final EA that analyzed the effects of implementing the Plan (NMFS 1998). It was concluded that the impacts of pingers on these marine organisms would be low or not likely to occur.

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

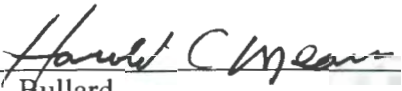
The proposed action is not expected to violate Federal, State, or local environmental laws. In particular, the proposed action is in compliance with the MMPA and the ESA. The purpose of the proposed action is to continue managing Northeast gillnet fisheries according to MMPA requirements through modification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

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

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

DETERMINATION

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

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7 REFERENCES

- CONCUR. 2013a. Harbor Porpoise Take Reduction Team Meeting: Key Outcomes Memorandum – May 13-15, 2013. Retrieved from www.nero.noaa.gov/protected/porptrp/trt/Meetings/index.html on 7/18/2013.
- CONCUR. 2013b. Harbor Porpoise Take Reduction Team Teleconference Meeting: Key Outcomes Memorandum – June 18, 2013. Retrieved from www.nero.noaa.gov/protected/porptrp/trt/Meetings/index.html on 7/18/2013.
- Gaskin, D.E. 1977. Harbour porpoise, *Phocoena phocoena* (L.), in the western approaches to the Bay of Fundy 1969-75. *Rep. int Whal. Comm* 27:487-492.
- Kraus, S.D., J.H. Prescott, and G.S. Stone. 1983. Harbour porpoise, *Phocoena phocoena*, in the U.S. coastal waters of the Gulf of Maine: A survey to determine seasonal distribution and abundance. Report to the Director, National Marine Fisheries Service, 166 Water St., Woods Hole, MA. 15 pp.
- Kraus, S.D., A.J. Read, A. Solow, K. Baldwin, T. Spradlin, E. Anderson, and J. Williamson. 1997. Acoustic alarms reduce porpoise mortality. *Nature* 388:525.
- National Marine Fisheries Service (NMFS). 1998. Harbor Porpoise Take Reduction Plan (Plan) Final Environmental Assessment and Final Regulatory Flexibility Analysis. NMFS Office of Protected Resources, Silver Spring, MD.
- National Marine Fisheries Service (NMFS). 2001. Final Review of the Biological Status of the Gulf of Maine/Bay of Fundy Harbor Porpoise (*Phocoena phocoena*) Pursuant to the Endangered Species Act. National Marine Fisheries Service, Silver Spring, MD.
- National Marine Fisheries Service (NMFS). 2009. Modifications to the Harbor Porpoise Take Reduction Plan: Final Environmental Assessment. Retrieved from www.nero.noaa.gov/protected/porptrp/plan/index.html on 7/18/2013.
- National Marine Fisheries Service (NMFS). 2013a. Cape Cod Spiny Dogfish Exempted Fisheries Environmental Assessment. NMFS Northeast Regional Office, Gloucester MA.
- National Marine Fisheries Service (NMFS). 2013b. Fishing Year 2013 Northeast Multispecies Sector Operations Plans and Contracts Environmental Assessment. NMFS Northeast Regional Office, Gloucester, MA.
- New England Fishery Management Council (NEFMC). 2013. Framework Adjustment 50 to the Northeast Multispecies Fishery Management Plan: Fishing Year 2013 Recreational Management Measures. Retrieved from www.nefmc.org/nemulti/index.html on 7/24/2013.

- Palka, D. 1995a. Abundance estimate of the Gulf of Maine harbor porpoise. *Rep. int. Whal. Commn* (Special Issue) 16:27-50.
- Palka, D. 1995b. Influences on spatial patterns of Gulf of Maine harbor porpoises. pp. 69-75 In: A.S. Blix, L. Walløe and Ø. Ulltang (ed). Whales, seals, fish and man. Amsterdam, The Netherlands: Elsevier Science; p. 69-75.
- Palka, D. 2000. Abundance of the Gulf of Maine/Bay of Fundy harbor porpoise based on shipboard and aerial surveys during 1999. NOAA-NMFS-NEFSC Ref. Doc. 00-07. 29pp.
- Read, A.J. and A.J. Westgate. 1997. Monitoring the movements of harbour porpoises (*Phocoena phocoena*) with satellite telemetry. *Marine Biology* 130:315-22.
- Stevenson, D., L. Chiarella, D. Stephan, R. Reid, K. Wilhelm, J. McCarthy, and M. Pentony. 2004. Characterization of the Fishing Practices and Marine Benthic Ecosystems of the Northeast U.S. Shelf, and Evaluation of the Potential Effects of Fishing on Essential Fish Habitat. NOAA Tech Memo NMFS NE 181.
- Waring GT, Josephson E, Maze-Foley K, Rosel, PE, editors. 2013. U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments -- 2012. NOAA Tech Memo NMFS NE 223; 419 p.
- Waring GT, Josephson E, Maze-Foley K, Rosel, PE, editors. 2012. U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments -- 2011. NOAA Tech Memo NMFS NE 221; 319 p.
- Westgate, A.J., A.J. Read, T.M. Cox, T.D. Schofield, B.R. Whitaker, and K.E. Anderson. 1998. Monitoring a rehabilitated harbor porpoise using satellite telemetry. *Mar. Mammal Sci.* 14(3):599-604.

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