Jones River Watershed Association

781-585-2322 • 55 LANDING ROAD, KINGSTON, MASSACHUSETTS 02364 • WWW.JONESRIVER.ORG

April 3, 2015

Mr. Harry Mears
Assistant Regional Administrator
Protected Resources Division
NMFS, Greater Atlantic Regional Office
55 Great Republic Drive
Gloucester, MA 0193

**RE: Proposed Rule; Critical Habitat for Endangered North Atlantic Right Whale (Docket No. 100217099-4774-02); NOAA-NMFS-2014-0085**

Dear Mr. Mears,

On behalf of the Jones River Watershed Association, I submit the following comments regarding the above referenced proposed rule.

We strongly support the two new areas being considered as critical habitat for North Atlantic right whales (the Gulf of Maine feeding area – including all of Cape Cod Bay – and the southeast U.S. calving area). However, we also support the U.S. Whale and Dolphin Conservation's recommendation to include the southern range of currently designated critical habitat in the southeast, the mid-Atlantic migratory corridor, and the waters off coastal Maine. We also ask NMFS consider including inshore areas where high concentrations of right whales have been sighted (e.g., inshore areas in western Cape Cod Bay), and consider the negative impacts of coastally-located industrial electric generators (e.g., Pilgrim Nuclear Power Station, Seabrook Nuclear Power Station, Mirant Canal Power Plant) as a cause for special management considerations or protections.

**Additional Areas Should be Included**

Currently, NMFS does not include the southern range of currently designated critical habitat in the southeast region, the mid-Atlantic migratory corridor, and the waters off coastal Maine. We support the U.S. Whale and Dolphin Conservation's recommendation to include these areas. <u>These areas are essential to the conservation of the species, and should be included in the final critical habitat areas designated by NMFS</u>.

**Cape Cod Bay Inshore Areas**

As discussed in the proposed rule, Cape Cod Bay is an important foraging area for right whales, as the area exhibits high densities of copepods during winter, spring, and possibly fall. The proposed critical habitat area includes the large embayments of Cape Cod Bay and Massachusetts Bay and deep underwater basins, incorporating state and federal waters from Maine through Massachusetts, but inshore waters are not considered. Over the last several years, there have been increasing concentrations of right whales in the western portion of Cape Cod Bay, including in inshore areas including off the shore of Plymouth, Mass. (Attachment 1). We recommend NMFS consider including these inshore areas where high concentrations of right whales have been sighted.

**Special Management Considerations or Protections**

In the proposed rule, NMFS recognized special management considerations or protections may be required due to negative impacts caused by zooplankton fisheries, sewage outfalls, oil/gas exploration and development, and climate change. However, one issue that NMFS failed to include is industrial electric generators along the shoreline within or in close proximity to critical habitat (proposed and current) areas. There may be cumulative impacts to copepods or other foraging habitat features due to industrial electric generators operating on the shoreline, such as Entergy's Pilgrim Nuclear Power Station on the shore of Cape Cod Bay (Plymouth, MA), Seabrook Station Nuclear Power Plant (Seabrook, NH), and Mirant Canal Power Plant (Sandwich, MA). Possible and realized negative impacts include entrainment of copepods and other planktonic species, as well as chemical, thermal and radioactive discharges occurring in important foraging areas. This issue should be included as a cause for special management considerations or protections.

*Entrainment of Copepods*: NMFS states in the proposed rule that the cumulative impacts of all sewage outfalls may pose a need for management considerations or protections for *C. finmarchius*. However, the cumulative impacts to copepods due to entrainment by coastal power plants could also pose a need for management considerations or protections. For example, Pilgrim Nuclear Power Station (Pilgrim) uses up to 510 million gallons of seawater from Cape Cod Bay daily, entraining billions of plankton each year in the process. Phytoplankton, zooplankton, and ichthyoplankton become entrained in Pilgrim's cooling system. Pilgrim has been monitoring entrainment of fish and lobster for more than 30 years, however only entrainment of ichthyoplankton and lobster larvae is reported in Entergy's annual and semi-annual Marine Monitoring Reports for Pilgrim. According to its original 1983 NPDES permit, Pilgrim's entrainment monitoring emphasizes consideration of ichthyoplankton. However, entrainment of copepods should be monitored and reported at Pilgrim and other relevant coastally-located industrial facilities where entrainment is an issue (e.g., Seabrook Station and Mirant Canal Plants), in order to track impact on copepods in important foraging areas.

*Thermal Effluent*: Pilgrim is also adding thermal effluent to the coastal area where right whales are known to feed, potentially exacerbating climate change impacts such as increasing water temperatures, and potentially impacting copepod populations in Cape Cod Bay. It regularly discharges water up to

32°F warmer than the ambient temperature of Cape Cod Bay, and periodically discharges water up to 120°F warmer during backwashing operations (Attachment 2).

*Oil and Other Pollutants*: NMFS identifies oil spills and discharges as having a possible negative impact on right whale foraging habitat, and states "very low concentrations (from less than 1 µg/l to 1mg/l) of oil and petroleum hydrocarbons have been found to have harmful effects in various marine organisms." Industrial electric generators are also a source of oil discharges – potential and realized. For instance, Pilgrim regularly discharges effluent containing oil and grease via several storm drains on the site. Pilgrim also discharges other pollutants such as tolyltrizole, boron, sodium nitrite, and chlorine into Cape Cod Bay – all of which have "possible negative impacts" on right whale foraging habitat (Attachment 2).

*Interagency Communication Needed/NPDES Permit:* The U.S. Environmental Protection Agency (EPA) is currently in the process of renewing Entergy's NPDES (National Pollutant Discharge Elimination System) permit for Pilgrim.[1] This permit regulates the discharge of pollutants (including thermal effluent) into Cape Cod Bay and is intended to require "best technology available" (BTA) to reduce harm to the environment (including impingement and entrainment of aquatic species), according to the Clean Water Act section 316(b).

After 19 years of administratively extending Pilgrim's permit, in July 2014 EPA requested information from Entergy on the feasibility of implementing alternative technologies to reduce entrainment and impingement of marine life caused by Pilgrim's Cooling Water Intake Structure (CWIS). The most effective proposed alternative technology to Pilgrim's current CWIS would be a closed-loop cooling system, which would require less water use (hence less impingement/entrainment of marine species would occur, including copepods and other planktonic species) from Cape Cod Bay. However, Entergy has asserted that closed-loop cooling is not "available" in terms of the BTA rule because it is "not technologically feasible" and it raises safety concerns. However, the reality is that closed-cycle cooling is standard, affordable technology that is highly effective at reducing a power plant's impacts on local water bodies.

Furthermore, some studies Entergy has proposed to EPA include an alternate, offshore intake location as well as an acoustic fish deterrent system to reduce impingement and entrainment. Both of these measures would likely affect the critical habitat area in Cape Cod Bay. We suggest more interagency communication with the Nuclear Regulatory Commission (NRC) and EPA to determine and implement the most protective measures for right whale critical habitat in Cape Cod Bay.

*Radioactive Pollution*: Another aspect of Pilgrim's operations that could have potential negative impacts on copepods or right whales directly is the discharge of radioactive waste into Cape Cod Bay. Pilgrim

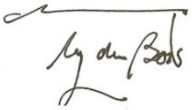
[1] EPA. Letter to NRC regarding the renewal of Pilgrim's NPDES permit. July 10, 2014. <http://www.capecodbaywatch.org/wp-content/uploads/2014/08/Pilgrim-EPA-letter-to-NRC-071014-1.pdf>

regularly discharges thousands of gallons of radioactive water through eleven surface water outfalls directly into Cape Cod Bay.[2] Between 2010 and 2012, Pilgrim discharged more than 478 billion gallons of diluted radioactive effluent (more than 465,000 gallons undiluted) through its surface water outfalls.[3] Forty different discharges contained a total of over 7 curies[4] of radioactive products, including tritium. Entergy believes that dilution by sea water is the solution to radioactive waste pollution; however, the potential negative impacts to right whales and features of their critical habitat area should be considered.

**Summary**

We support the two new areas being proposed as critical habitat for right whales but also ask NMFS to include the southern range of currently designated critical habitat in the southeast, the mid-Atlantic migratory corridor, and the waters off coastal Maine. We also urge NMFS to consider inshore areas where high concentrations of right whales have been sighted and include coastally-located industrial electric generators as a cause for special management considerations or protections. NMFS should ensure that measures implemented by the NRC and EPA are the most protective of right whale critical habitat in Cape Cod Bay.

Sincerely,



Pine duBois
Executive Director
Jones River Watershed Association
*pine@jonesriver.org*

Karen Vale
Cape Cod Bay Watch Program Manager
Jones River Watershed Association
*karen@capecodbaywatch.org*

Attachments

[2] The NRC requires Entergy to report results of Pilgrim's Radiological Environmental Monitoring Program (REMP) in annual reports. These reports are intended to monitor environmental radioactivity levels and ensure that potential impacts of radiation are detected.

[3] See Pilgrim's 2010, 2011, and 2012 REMPs. <http://www.nrc.gov/reactors/operating/ops-experience/tritium/plant-specific-reports/pilg.html>

[4] The curie is a standard measure for the intensity of radioactivity contained in a sample of radioactive material, and is equivalent to one trillion picocuries. The EPA's Maximum Contaminant Level Goal (MCLG) for tritium in Drinking Water is 20,000 picocuries per liter (pCi/L).