



New England Fishery Management Council

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John F. Quinn, J.D., Ph.D., *Chairman* | Thomas A. Nies, *Executive Director*

June 29, 2017

The Honorable Ryan Zinke
Secretary
Department of the Interior
1849 C Street, N.W.
Washington, DC 20240

Dear Secretary Zinke:

Please accept these comments from the New England Fishery Management Council (Council) regarding the potential environmental effects of offshore oil development on the Atlantic Outer Continental Shelf.

The Council has management jurisdiction over 28 marine fishery species that are harvested in federal waters of the New England region. The distributions of many of these species and their associated fisheries extend beyond New England, often to Cape Hatteras, NC, and in some cases, into the South Atlantic.

The New England and Mid-Atlantic regions are highly interconnected in terms of fisheries operations and management. For example sea scallops are harvested from Maine to North Carolina and are landed in ports up and down the east coast. Squid are managed by the Mid-Atlantic Fishery Management Council but are harvested in New England as well, and are a key species for Rhode Island ports. The marine fisheries of both regions are economically and socially important to commercial and recreational fishermen and the coastal communities they support.

The National Marine Fisheries Service (NMFS) summarizes the economic impact of both commercial and recreational fisheries on an annual basis, by region.¹ In 2015, landings revenue from commercial fishing totaled \$1.2 billion in New England and \$512 million in the Mid-Atlantic. The impact on regional economies is of course much larger, through sales of harvested products, personal and proprietor income associated with fishing businesses, and value-added (contribution to regional gross domestic product). NMFS estimates that, excluding the import sector, the New England fisheries economy supports 97,558 jobs, with over \$4.8 billion in sales, \$1.7 billion in income, and \$2.4 billion in value-added. Excluding imports, Mid-Atlantic commercial fisheries support nearly 27,000 jobs, \$1.6 billion in sales, \$601 million in income, and

¹ National Marine Fisheries Service. 2017. Fisheries Economics of the United States, 2015. U.S. DOC, NOAA Tech. Memo. NMFS-F/SPO-170, 247p. http://www.st.nmfs.noaa.gov/Assets/economics/publications/FEUS/FEUS-2015/Report-Chapters/FEUS%202015-AllChapters_Final.pdf

\$821 million in value-added. While many other sectors contribute to the economy in both regions, some port communities are particularly dependent on fisheries.²

Recreational fisheries are also economically significant during 2015. In New England, the recreational fisheries sector supported over 17,000 jobs, and resulted in sales, income and value-added estimates of \$1.8 billion, \$801 million, and \$1.9 billion, respectively. Recreational fisheries in the Mid-Atlantic are worth nearly twice those in New England, supporting over 37,000 jobs, sales over \$4 billion, income of \$1.7 billion, and value-added of nearly \$2.7 billion. The number of recreational trips taken during 2015 was estimated at 17 million; 5 million in New England and 12 million in the Mid-Atlantic.

The New England Council is a steward of many of the species that support these fisheries, and is very concerned that oil and gas exploration and extraction activities may harm these resources and the communities that depend on them. In the near term, we are very concerned that noise generated by seismic surveys will negatively impact not only fishery resources but other animals that are part of the marine ecosystem, including large whales. Aquatic animals used sound to “select mates, find food, maintain group structure and relationships, avoid predators, navigate, and perform other critical life functions”³. Paxton et al. (2017)⁴ estimated fish abundance at a rocky, shallow reef off the North Carolina coast, prior to and during a seismic survey. Received noise intensities at the reef, which was 7.9 km from the closest approach of the seismic survey vessel, were estimated to be in the range of 181-220 dB re 1 μ Pa, above the 207 dB re 1 μ Pa threshold estimated to cause recoverable and potentially lethal injuries⁵. In contrast to the three days prior to the seismic survey, heavy evening usage of the reef during the survey was significantly reduced. At the bottom of the marine food chain, there is new evidence that zooplankton, including krill, an important prey species, can suffer significant mortality associated with airgun use. McCauley et al. (2017)⁶ observed reduced abundance of zooplankton 1.0-1.2 km from an experimental seismic transect. Extrapolating from these findings, the authors suggested that “significant depletion or modification of plankton community structure” could result from commercial seismic operations, given the much broader spatial and temporal scale of such surveys.

While we recognize the importance of domestic energy development and energy security to the U.S. economy, such development must be done in a way that minimizes risks to marine species. At present, there is insufficient information about how ocean noise may affect fish, marine mammals, benthic communities, and ecosystem structure and function. There are just a few in situ field studies of fish or zooplankton responses to these types of noise from which to estimate the potential ecosystem effects of seismic surveys. Given the existing value of living marine resources and fisheries along the coast, it is critical to fund additional research into the environmental

² NMFS Social Indicators website: <http://www.st.nmfs.noaa.gov/humandimensions/social-indicators/>

³ Gedamke, J., et al. 2016. National Oceanic and Atmospheric Administration’s Ocean Noise Strategy Roadmap. <http://cetsound.noaa.gov/road-map>

⁴ Paxton, A.B., et al. 2017. Seismic survey noise disrupted fish use of a temperate reef. *Marine Policy* 78: 68-73.

⁵ Popper, A.N., et al. 2014. Sound exposure guidelines for fishes and sea turtles: A technical report prepared by ANSI-accredited Standards Committee S3/SC1 and registered with ANSI. Springer Briefs in Oceanography, ASA Press and Springer. 60pp/

⁶ McCauley, R.D., et al. 2017. Widely used marine seismic survey air gun operations negatively impact zooplankton. *Nature Ecology & Evolution* 1, 0195. 8pp.

consequences of these activities, before they are permitted. We look forward to working with the Department of the Interior and its Bureau of Ocean Energy management to ensure responsible development of domestic energy resources in the Atlantic.

Sincerely,

A handwritten signature in black ink, appearing to read "John F. Quinn". The signature is fluid and cursive, with a long horizontal stroke at the end.

Dr. John Quinn
Council Chairman

cc: Wilbur Ross, Secretary, Department of Commerce
Chris Oliver, Assistant Administrator for NOAA Fisheries
Donna Wieting, Director, NOAA Office of Protected Resources
Patricia Montanio, Director, NOAA Office of Habitat Conservation
Walter Cruikshank, Acting Director of BOEM
Timothy Williams, Office of External and Intergovernmental Affairs, Department of Interior