Department of Commerce · National Oceanic & Atmospheric Administration · National Marine Fisheries Service

NATIONAL MARINE FISHERIES SERVICE POLICY DIRECTIVE 02-309 November 15, 2016 Protected Resources Management Ocean Noise 02-309 Ocean Noise Policy NOTICE: This publication is available at: http://www.nmfs.noaa.gov/op/pds/index.html Author name: J. Harrison Office: Protected Resources Type of Issuance: Initial SUMMARY OF REVISIONS:

I. Introduction

Increasing human activity is contributing to rising levels of underwater noise. Due to the efficiency with which sound travels underwater, aquatic animals have evolved to use acoustic cues in a wide variety of contexts that support their survival and reproductive success, including to select mates, find food, maintain group structure and relationships, avoid predators and navigate. Increasing noise levels can impact the animals and ecosystems that inhabit these places including through acute, chronic, and cumulative effects. Loud underwater noise events can cause physical injuries and adverse behavioral responses; pervasive noise creating activities can accumulate, reducing the ability of animals over large areas to detect and interpret critical environmental cues.

NOAA's National Marine Fisheries Service (NMFS) holds responsibilities under a variety of legal mandates to protect aquatic animals and their habitats in U.S. waters. NMFS is committed to developing an approach to managing the impacts of underwater noise that considers not only its effects on populations and species in its trust, but also the importance of natural sounds in the places where those animals live. Crafting and implementing new management approaches that balance the needs of coastal and ocean resource users while sustaining fisheries and protecting species and areas of national value from harmful noise effects will present NMFS with significant challenges in the coming decade.

To meet these challenges, NMFS collaborated with offices across NOAA to develop an agency-wide Ocean Noise Strategy Roadmap (Strategy Roadmap). The Strategy Roadmap seeks to ensure that NOAA is more comprehensively addressing noise

impacts to species and their habitat over the next 10 years.

II. Objective

NMFS recognizes that introduced noise from human activities can impact both aquatic animals and the ecosystems they inhabit through acute, chronic, and cumulative impacts. NMFS will work to improve scientific understanding of ocean noise and its impacts; integrate its management actions to effectively reduce ocean noise impacts; support the creation and improvement of decision support tools; and assist in public awareness and education efforts regarding the potential impacts of introduced underwater noise on marine life, and the importance of acoustic habitat to animals and the ecosystems they live within.

III. Authorities and Responsibilities

This policy directive establishes the following authorities and responsibilities: NMFS' headquarters directorate and office directors, regional leadership (Regional Administrators and Science Directors) are responsible for NMFS-wide implementation of this policy.

IV. Measuring Effectiveness

The effectiveness of the Policy Directive can be measured by assessing the degree to which NMFS has met the following objectives in addressing Ocean Noise through improvements in Science and Monitoring, Management, Decision Support Tools, and Outreach activities.

SCIENCE: NMFS and cross-agency and external partners are filling shared critical knowledge gaps and building understanding of noise impacts over ecologically-relevant scales

MANAGEMENT¹: NMFS' actions are integrated across program offices and are minimizing the acute, chronic and cumulative effects of noise on marine species and their habitat

DECISION SUPPORT TOOLS: NMFS is developing publically available tools for assessment, planning and mitigation of noise-making activities over ecologically-relevant scales

OUTREACH: NMFS is educating the public on noise impacts, engaging with stakeholders & coordinating with related efforts internationally

¹ The term "management" refers here to all NMFS actions that seek to reduce or eliminate impacts to trust resources. Such actions include a variety of methods by which individual NOAA programs implement their long-term strategic plans, including, but not limited to, activity-specific regulation of impacts to individual species, prioritization of internal capacities, providing regional, national and international leadership or coordination of protective actions, and providing recommendations or guidance to other federal and state agencies.

Approval signature

Signed_

Eileen Sobeck

Assistant Administrator for Fisheries

11/15/16

Date