

1.0 INTRODUCTION

The National Oceanic and Atmospheric Administration (NOAA) National Ocean Service (NOS) has prepared this Draft Programmatic Environmental Impact Statement (PEIS) to analyze the potential environmental impacts associated with NOS's recurring projects throughout United States (U.S.) coastal and marine waters to characterize underwater features (e.g., habitat, bathymetry, marine debris). Data obtained from these projects are used to produce many products, including charts and maps that are relied upon by mariners, scientists, shipping and fishing industries, and countless other users in the U.S. and beyond.

The Proposed Action evaluated in this Draft PEIS is to continue NOS's data collection projects in U.S. rivers, states' offshore waters, the U.S. territorial sea, the contiguous zone, and the U.S. Exclusive Economic Zone (U.S. EEZ), and some supporting activities in coastal and riparian lands such as the installation of tide gauges. These areas are referred to as the "action area" in this document. These projects would include surveys performed from crewed vessels and remotely operated or autonomous vehicles operated by NOS field crews, other NOAA personnel on behalf of NOS, contractors, grantees, or permit/authorization holders. These crews and vehicles may use echo sounders and other active acoustic equipment and employ other equipment, including bottom samplers and conductivity, temperature, and depth instruments to collect the needed data. A project could also involve supporting activities, such as the use of divers and the installation of tide buoys.

This Draft PEIS was prepared in accordance with the National Environmental Policy Act (NEPA) (42 United States Code [U.S.C.] § 4321, et seq.); Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR §§ 1500–1508 (1978)); NOAA Administrative Order 216-6A¹; and other relevant federal and state laws and regulations. While the CEQ regulations implementing NEPA were revised as of September 14, 2020 (85 FR 43304, July 16, 2020), NOS prepared this Draft PEIS using the 1978 CEQ regulations because this environmental review began on December 19, 2016, when NOS published a Notice of Intent (NOI) to conduct scoping. This Draft PEIS discloses the direct, indirect, and cumulative environmental impacts that would result from the Proposed Action to ensure that environmental information is available to public officials and citizens before decisions are made and before actions are taken.

1.1 THE MISSION, PRIORITIES, AND ORGANIZATION OF THE NATIONAL OCEAN SERVICE

NOS is the nation's leading authority on hydrography, shoreline mapping, and nautical charts; water levels, tides, and currents; and geodetic positioning. The NOS mission is "to provide science-based solutions through collaborative partnerships to address evolving economic, environmental, and social pressures on our ocean and coasts" (NOS, No Date-a).

The NOS priorities are:

- Safe and efficient transportation and commerce;
- Preparedness and risk reduction; and
- Stewardship, recreation, and tourism.

¹ NOAA Administrative Order (NAO) 216-6A establishes NOAA's policy and procedures for compliance with NEPA; the CEQ regulations; Executive Order (EO) 12114, Environmental Effects Abroad of Major Federal Actions; EO 11988 and 13690, Floodplain Management; and EO 11990 Protection of Wetlands.

To advance these priorities, NOS performs, funds, and authorizes a wide variety of work including research, education, technical assistance, data collection, software development, oversight, disaster response, and resource stewardship.

NOS provides data, tools, and services that support coastal economies and their contribution to the national economy. Approximately 40 percent of the U.S. population lives and works in coastal areas. Many U.S. coastal areas are undergoing substantial changes and face a variety of challenges, including port congestion and navigation hazards, recurrent flooding and beach erosion, pollution and algal blooms, habitat loss, and risk of catastrophic impacts from coastal storms and tsunamis. NOS works across all levels of government and with academic and private-sector partners to prepare America's coastal communities to address these challenges, reduce risks, and ensure thriving coastal communities and economies now and in the future (NOS, 2017a).

NOS is organized into eight program offices. These are:

- [Center for Operational Oceanographic Products and Services](#) (CO-OPS): provides accurate, reliable, and timely water level, current, and other oceanographic measurements that support safe and efficient maritime commerce, sound coastal management, and recreation.
- [National Centers for Coastal Ocean Science](#) (NCCOS): conducts and funds research in support of NOS core priorities of coastal change vulnerability, mitigation, and restoration; marine spatial ecology; stressor impacts and mitigation; and social science.
- [Office of National Geodetic Survey](#) (NGS): provides the nation with geodetic and geographic positioning services through a common reference framework, the National Spatial Reference System, for establishing the coordinate positions of all geographic and geospatial data.
- [Office of Coast Survey](#) (Coast Survey): carries out NOAA's surveying and charting responsibility in over 3 million square nautical miles (nm²) of U.S. waters. The program collects hydrographic data and creates and maintains nautical charts and other products to support safe navigation for commercial shipping, fishing, recreational boaters, and state and local governments.
- [Office for Coastal Management](#) (OCM): implements the Coastal Zone Management Act, the nation's guiding legislation for keeping the natural environment, built environment, quality of life, and economic prosperity of our coastal areas in balance.
- [Office of National Marine Sanctuaries](#) (ONMS): oversees the National Marine Sanctuary System, comprising 14 national marine sanctuaries and two marine national monuments. Together, these protected areas encompass more than 600,000 square miles of marine, riverine, and Great Lakes waters.
- [Office of Response and Restoration](#) (ORR): provides expertise in preparing for, evaluating, and responding to threats to coastal environments, including oil and chemical spills, hazardous waste releases, and marine debris.
- [Integrated Ocean Observing System](#) (IOOS): a national-regional partnership that provides observational coastal data, forecasts, and new tools to improve safety, enhance the economy, and protect the environment. IOOS provides integrated ocean information in near real time, as well as retrospectively, which improves NOAA's ability to understand and predict coastal storms, wave heights, and sea level change.

Of the eight programs listed above, all but one (the National Geodetic Survey) perform activities that are addressed in this Draft PEIS. Appendix A, Summary of NOS Program Offices and Their Use of Active Acoustic Data Collection Technology, contains more information on each office's mission and history.

1.2 PURPOSE AND NEED

The purpose of the Proposed Action is to gather accurate and timely data on the marine and U.S. coastal environment.

The need for the Proposed Action is to provide the public and private sectors with nautical charts, benthic habitat condition maps, current and tide charts, and other products necessary for safe navigation, economic security, and environmental sustainability. The public and decision-makers need these products to ensure safety at sea, economic well-being, and the efficient stewardship of public trust resources. **Figure 1.2-1** presents the geographic areas of U.S. surveying and mapping data needs.

1.2.1 Safe Navigation

The Coast and Geodetic Survey Act (33 U.S.C. §§ 883a et seq.) and the Hydrographic Services Improvement Act as amended (33 U.S.C. § 892) make surveying and charting a principal responsibility of NOAA. This includes rivers, states' offshore waters, the U.S. territorial sea, contiguous zone and the U.S. EEZ. NOS uses survey data to create products that support safe navigation for commercial shipping, the fishing industry, recreational boaters, and military and government functions such as law enforcement. Many coastal areas are highly dynamic, with shifting shoals and wrecks, and eroding or accreting shorelines, all of which require routine measurement to ensure safe navigation.

1.2.2 Economic Security

The nation's economic security requires timely and accurate data on the natural environment. Shipping on America's network of coastal waterways, navigable channels, ports, and marine terminals is a primary mode of moving goods around the country. This waterborne highway system also connects U.S. producers to the global marketplace. Water transportation jobs and establishments contributed \$33 billion and 467,000 jobs to the U.S. economy in 2016 (OCM, 2016b). By value, vessels carry 46 and 35 percent of U.S. imports and exports, respectively (USCB, 2018). To accommodate the tonnage of goods such as petroleum, iron, coal, and grain being transported by ship, cargo vessels have become larger and have deeper drafts. Port authorities, mariners, and coastal communities depend on accurate navigational information provided by NOS to make informed decisions. Alaskan and U.S. Arctic waters, more of which are becoming navigable given the changing sea ice conditions, are especially important survey targets (NOAA, 2018e). Alaska's approximately 55,000 kilometers (34,000 miles) of coastline contain oil, natural gas, minerals, fish, and other resources that will play an important future role in the U.S. economy, all of which must transit Alaska's waterways to reach domestic and international markets.

1.2.3 Environmental Sustainability

NOS coastal and marine data support ecosystem stewardship. Bathymetric base layers provide valuable information about essential habitat for fish and marine mammals. Survey data provide the extent of coral reef tracts, which helps federal, state, and local governments make informed decisions about anchorages, fishing areas, and other natural resource management issues. For example, coastal and marine resource managers rely on survey data to conserve, preserve, and restore ecological resources, including critical habitat for endangered seabirds, coral, seagrass, fish, sea turtle, and marine mammal species. National marine sanctuaries also rely on surveys to identify and monitor underwater cultural and historical

resources such as shipwrecks. NOS's ORR collects data to track and map oil plumes and to characterize fish and plankton presence. Finally, NOS coastal and marine data provide baseline resource information against which coastal managers can measure changes to the environment over time.

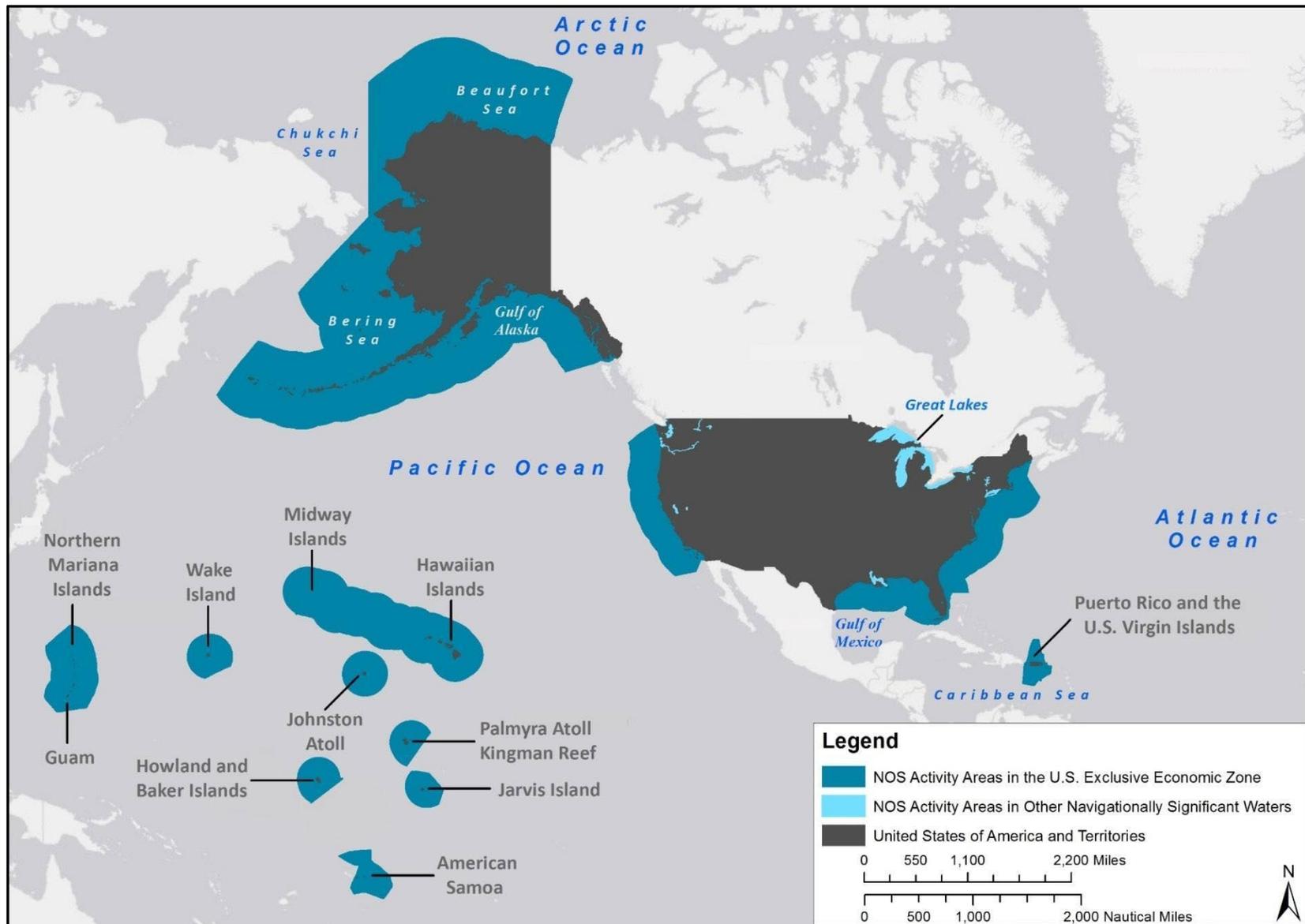


Figure 1.2-1. Action Area for Surveying and Mapping Activities Conducted by the National Ocean Service

1.3 PROGRAMMATIC SCOPE

The CEQ indicates that programmatic NEPA analysis can “address the general environmental issues relating to broad decisions, such as those establishing policies, plans, programs, or suite of projects, and can effectively frame the scope of subsequent site- and project-specific Federal actions” (CEQ, 2014). CEQ guidance also provides that “[a]gencies may prepare a single NEPA document to support both programmatic and project-specific proposals.” *Id.*

NOS determined that a programmatic approach was appropriate for the Proposed Action because NOS conducts, authorizes, permits, and funds a suite of similar, ongoing data collection activities throughout the action area. This Draft PEIS analyzes the environmental impacts of a suite of surveying and mapping data collection activities. The analysis will be used to inform NOS leadership and the public on the environmental impacts of these activities before a decision is made on how to execute each project.

1.3.1 Subsequent Project-Specific Consideration of Environmental Impacts

This PEIS would complete the NEPA process for the suite of activities encompassed within the Proposed Action throughout the action area. This PEIS is intended to function as both a programmatic and project- or site-specific NEPA document and informs the public of NOS’s intent to use the analysis contained within for both purposes. Additional project or site-specific review or analysis may rely on, or tier off, the analysis in this document. NOS anticipates that the majority of future projects encompassed in the Proposed Action would not require additional, site- or project-specific analysis.

NOS would consider the applicability of this PEIS to individual proposed projects through the preparation of a “Record of Environmental Consideration” (REC) as defined in the NOS Environmental Compliance Program Policy (NOS, 2018)². NOS would complete a REC prior to the start of a project to document whether the project falls within the scope of the activities and effects detailed in this PEIS³. If the REC indicates that all applicable environmental requirements for the proposed activities were satisfied, then the REC would be signed by the appropriate NOS authority. NOS would proceed with the proposed project only after the REC had been signed and it had been determined no additional review or analysis was required. If NOS determines that the activities are outside of the scope of this PEIS, additional project or site-specific review or analysis would be required. For NOS projects occurring in freshwater bodies, project-specific reviews would be conducted to identify potential impacts to select ESA-listed freshwater taxa such as amphibians, mammals, and reptiles eliminated from further analysis in this Draft PEIS as described in Section 3.14.4.

1.4 PUBLIC INVOLVEMENT

The public has a critical role in helping NOS understand the environmental impacts of the Proposed Action. Public participation promotes transparency, facilitates better decision-making, and helps federal agencies identify data gaps and sources of potential concern regarding the environmental impacts of a proposed action. NOS first involved the public by publishing a “Notice of Intent to Prepare a Programmatic Environmental Assessment (PEA) and Request for Comments” in the *Federal Register* on December 19, 2016 (FR, 2016a). This Notice advised other federal and state agencies, territories, tribal governments, local governments, private parties, and the public of the Proposed Action and the intent to develop a Draft PEA, provided information on the nature of the analysis, and invited their input. The 30-day public comment period closed on January 18, 2017. A copy of the NOI is presented in Appendix B.

NOS received one comment during this comment period, regarding the process used to redact information about potential sensitive cultural resources from publicly available data. This PEIS considers the impacts to historical and cultural resources from data collection, as discussed in Chapter 3, Section 3.11, Cultural Resources. The potential effects resulting from the release of collected data are outside the scope of this PEIS. NOAA, like other federal agencies, is required to comply with Section 304 of the National Historic Preservation Act (NHPA), which protects certain sensitive information about historic properties from disclosure to the public when such disclosure could result in a significant invasion of privacy, damage to the historic property, or impede the use of a traditional religious site by practitioners. NOS will comply with Section 304 of the NHPA in the course of creating public data products.

Due to the geographic and temporal scope of the Proposed Action, comprehensive data modeling approach, and complexity of the analysis, NOS later determined that a PEIS, and not a PEA, would provide the agency and the public with the appropriate framework to understand the potential impacts to critical resources such as marine mammals and to provide input on the Proposed Action.

NOS prepared a comprehensive public involvement and outreach plan outlining the development and distribution of materials to inform the public and solicit input on the scope of the Proposed Action and related impact analysis. In conjunction with publication of the Draft PEIS, an interested party letter inviting public comment on the draft was distributed via email or U.S. mail to federal agencies; states and territories; Non-Governmental Organizations (NGOs); tribes; regional organizations; Alaska regional and village corporations; Native Hawaiian Organizations (NHOs); and NOS grantees, partners, and permit/authorization recipients with potential interest in the Proposed Action. Potentially interested tribes include those in geographic proximity to the action area (i.e., located in coastal states, Great Lake states, or along major navigable rivers) as well as tribes with historic, religious, or cultural connections to coastal and marine resources regardless of proximity to the action area. In addition to contacting interested parties directly, the availability of the Draft PEIS was advertised in newspapers in coastal cities throughout the U.S. and posted on NOAA and NOS social media platforms. These announcements direct readers to the project website at <https://oceanservice.noaa.gov/about/environmental-compliance/surveying-mapping.html>. The website provides helpful information detailing key components of the Draft PEIS including an overview of the Proposed Action, fact sheets about the resources analyzed, and instructions on how to comment on the document. In order to reach communities in Alaska without reliable internet access, in addition to newspaper advertisements, NOS developed a Public Service Announcement (PSA) to be broadcasted by public radio stations to reach a broad geographic range along the Alaska coast. Upon request, NOS will make the Draft PEIS available at community centers, libraries, and other public facilities and to individual members of the public by providing a CD, USB drive, or hard copy.

The Draft PEIS is available for review on the project website. There will be a 60-day public comment period for this Draft PEIS that closes on August 24, 2021. Commenters may submit a comment through U.S. mail or email to the contact listed in the Abstract at the beginning of this document or through the Federal e-Rulemaking Portal at <http://www.regulations.gov/NOAA-NOS-2021-0055>.

1.4.1 Government-to-Government Consultation

NOS will invite tribes to engage in government-to-government consultation pursuant to EO 13175, Consultation and Coordination with Indian Tribal Governments. NOS recognizes its unique relationship with tribes and trust responsibility with tribal governments as set forth in the U.S. Constitution, treaties, statutes, executive orders, and court decisions. It is the policy of NOAA to consult on a government-to-

government basis with federally recognized tribal governments when the federal actions and decisions may affect tribal interests. This consultation and coordination process would be conducted in accordance with NOAA's Procedures for Government-to-Government Consultation with Federally Recognized Indian Tribes and Alaska Native Corporations (NOAA 13175 policy, November 12, 2013).

1.5 COORDINATION WITH OTHER FEDERAL AGENCIES

NOS coordinated with the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) during preparation of this Draft PEIS. The NMFS has legal jurisdiction over most marine mammal species (through the Marine Mammal Protection Act [MMPA]), most threatened or endangered marine plant and animal species (through the Endangered Species Act [ESA]), and Essential Fish Habitat (through the Magnuson-Stevens Fishery Conservation and Management Act [MSA]). The USFWS has legal jurisdiction over certain marine mammal species (including manatees, walruses, polar bears, and sea otters), most threatened or endangered terrestrial plant and animal species (through the ESA), and over 1,000 species of birds (through the Migratory Bird Treaty Act [MBTA]).

Both agencies provided a comprehensive Technical Assistance Review prior to publication of the Draft PEIS. In coordinating with NOS, the NMFS and USFWS participated in multiple meetings and reviews during the development of the Draft PEIS.

Additionally, in compliance with the National Marine Sanctuaries Act (NMSA), NOS is preparing a Sanctuary Resource Statement (SRS) in coordination with ONMS to address the required analyses necessary to initiate a consultation under Section 304(d) of the Act.