



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Ocean Service
1305 East West Highway
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September 8, 2022

FROM: Ms. Giannina DiMaio
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TO: Mr. Arthur Charfauros, Coastal Resources Planner III
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REFERENCE: Supplemental Information for the Consistency Determination for National Ocean Service Mapping and Surveying Activities Undertaken in the Commonwealth of the Northern Mariana Islands (CNMI) Coastal Zone, 2023-2027

Mr. Charfauros:

As requested in your email of August 29, 2022, the National Ocean Service (NOS) provides the following supplemental information for the Consistency Determination for National Ocean Service mapping and surveying activities. A full list of mitigation measures and those discussed below can be found in Appendix A of the *Consistency Determination for National Ocean Service Mapping and Surveying Activities Undertaken in the Commonwealth of the Northern Mariana Islands (CNMI) Coastal Zone, 2023-2027* which was sent to you via email on August 26, 2022.

Consistency Determination for CNMI Public Law 3-47

CNMI Comment: I was hoping you could provide some further insight on the consistency with potential take of marine mammals, as you have noted consistency with CNMI Public Law 3-47, specifically, "(17) Protect all coastal resources, particularly sand, coral and fish from taking beyond sustainable levels and in the case of marine mammals and any species on the Commonwealth endangered species list, from any taking whatsoever." I understand that NOS will be acquiring incidental take authorizations from the proper federal agencies, and that the MMPA and ESA take permit include provisions which allow for take. Please provide more detail explaining how the proposed activity is consistent with this enforceable policy.

NOS identified the following Endangered Species Act (ESA)-listed marine mammal species that may be found in the waters of the CNMI: Blue Whale, Fin Whale, Western North Pacific Humpback Whale, Sei Whale, Sperm Whale, and Dugong¹. NOS estimated very few total behavioral disruption exposures for all of those species combined across the entire Pacific Island Region over the next five years (see Table 1). For determining potential impacts to these marine mammal species, NOS considered the amount of time individual animals would be exposed above the behavioral threshold and whether the acoustic sources emit

¹ National Marine Fisheries Service. May 20, 2022. *Marine Protected Species of Mariana Islands*. Accessed at: <https://www.fisheries.noaa.gov/pacific-islands/endangered-species-conservation/marine-protected-species-mariana-islands>.

sounds within the hearing range of those species. NOS estimated that the duration individual animals remained above the behavioral threshold would be approximately two to five minutes; therefore, temporal disruption and overall potential behavioral exposures to marine mammal species would be limited. Behavioral exposures need to occur over a timespan of weeks to have a population-level effect². Any disruption that occurs for a matter of hours or for less than a day would not likely have a population-level impact. No Level A exposures are expected in the Pacific Island Region.

Table 1. Annual Predicted Level B Exposures for All Species and Time in Seconds Above the Behavioral Disruption Threshold Under Alternative B

Species	Year 1	Year 2	Year 3	Year 4	Year 5
Pacific Islands Region					
Humpback whale, WNP	1.27	1.18	1.42	0.74	0.74
Sperm whale	1.27	0.59	1.27	0.59	0.59
Sei whale	0.77	0.40	0.77	0.40	0.40
Fin whale	0.50	0.28	0.50	0.28	0.28
Blue whale	0.07	0.03	0.07	0.03	0.03

NOTE: Exposures are based on a probabilistic model that is scaled by animal density and may therefore include fractional counts.

In coordination and consultation with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) through the ESA and Marine Mammal Protection Act (MMPA) processes, NOS developed mitigation measures that include maintaining safe distances from protected species, decreasing vessel speeds after ESA-listed whale sightings, and following time-area restrictions in specific protected species habitats. Although behavioral exposures of marine mammals may occur in the waters of the CNMI, the potential for behavioral disturbances from the Proposed Action would be reduced through adherence with these mitigation measures. As such, NOS has revised the determination for CNMI Public Law 3-47 on page 16 of the CD to "consistent to the maximum extent practicable."

Activities in Proposed Coral Critical Habitat

CNMI Comment: On p.3 of the CD, you note the geographical description for the proposed project, "For the purpose of this CD, NOS mapping and surveying activities should be presumed to take place anywhere in the waters of the CNMI or in nearshore terrestrial areas, subject to applicable mitigation measures." You also note on p.A-6 under anchoring, "Do not anchor in coral critical habitat or other known areas of coral." The proposed rule at Federal Register Vol 85 No 229 indicates that NMFS intends to designate waters to a specific depth (at a minimum 0-20 m depth) across the CNMI (and other Pacific Islands) as coral critical habitat. If and when this designation occurs, how will NOS proceed with anchoring, buoy deployment, or conducting activities in these areas?

During survey projects NOS would follow several mitigation measures for the protection of corals, including any existing or newly-designated coral critical habitat. These mitigation measures include:

1. NOS would not collect bottom samples for sediment verification on coral reefs, shipwrecks, obstructions, or hard bottom areas;
2. NOS would not anchor in coral critical habitat or other known areas of coral;

² Southall, B., W. Ellison, C. Clark, D. Mann, and D. Tollit. 2016. A risk assessment framework to assess the biological significance of noise exposure on marine mammals. In Poster presented at the 21st Conference on the Biology of Marine Mammals.

3. NOS would use stiffer line materials for towing which would be kept taut during operations to reduce the potential for entanglement in bottom features such as coral habitats and shipwrecks; and
4. NOS divers/snorkelers/swimmers would not stand or rest on live corals/coral reefs. Bottom contact would only be in unconsolidated areas or non-living hardbottom.

NOS does not anticipate the need to anchor or deploy buoys in areas of coral. In the event that any planned NOS activity might disturb the seafloor where CNMI corals are present,, NOS would prepare a project-specific consistency determination for consideration by your office.

Discharge of Ballast Water

CNMI Comment: All of the CWA and CAA standards are automatically presumed as enforceable per 15 §CFR 923.82(e). Therefore all of NMIAC § 65-130 DEQ Water Quality Standards are applicable, including NMIAC § 65-130-010 Anti-degradation Policy. NMIAC § 65-130-010(a)(5) states , "All sewage, wastewater, and any other matter shall receive a degree of treatment necessary to protect the designated uses of the Commonwealth waters before discharging". On page A-2 you note, " All NOS projects would implement mandatory invasive species prevention procedures including, but not limited to, vessel and equipment washdown (including diving equipment), cleaning, and de-ballasting (exchange of ballast water in open ocean waters for those vessels used by NOS that have ballast tanks)." Page 368 of the Draft PEIS states that, "The impact of NOS activities would be miniscule in comparison, and it is unlikely that NOS activities would involve the release of ballast water discharge." Could you provide clarification as to if and what release of ballast water discharge may entail for this proposed activity, and what capture and filtration systems or other technology may be used to mitigate impacts?

NOAA vessels used for NOS surveying and mapping activities either use potable water for ballasting, treat the ballast water prior to discharge, or do not discharge ballast water. All new ships in the NOAA fleet will have internal ballast water treatment systems. NOAA uses United States Coast Guard approved Marine Sanitation Devices (MSDs) to treat and discharge sewage. All NOAA and contracted vessels are permitted as required to comply with the Clean Water Act. Additionally, NOS would not discharge if any protected marine species is sighted within 100 yards of the vessel and would follow MARPOL discharge protocols.

We appreciate your assistance in identifying these enforceable policies and look forward to working with you through this process. Please feel free to contact me with any questions or concerns at nosaa.ec@noaa.gov or by phone at (240) 339-5565.

1.0 INTRODUCTION

This Consistency Determination (CD) addresses the potential effects on any coastal use or resource of the Commonwealth of the Northern Mariana Islands (CNMI) from mapping and surveying activities undertaken by the National Oceanic and Atmospheric Administration's (NOAA) National Ocean Service (NOS). Specifically, this CD considers mapping and surveying activities undertaken in the 2023 - 2027 timeframe.

NOS is one of six line offices within NOAA.³ Section 2 of this CD provides a detailed description of NOS's mapping and surveying activities. This CD does not address all NOS activities, nor does it address actions undertaken by other NOAA line offices.

NOS prepared this CD pursuant to the Coastal Zone Management Act (CZMA) of 1972, as amended, and 15 Code of Federal Regulations (CFR) Part 930, Subpart C, for the implementation of activities that may have reasonably foreseeable effects on coastal uses or resources of CNMI's coastal zone. Under the CZMA, federal agency activities with coastal effects are required to be consistent to the maximum extent practicable with federally approved enforceable policies of a State's Coastal Management Program.

Federal agency activities must be consistent to the maximum extent practicable with the standards that underlie a state's permit requirements. However, federal agencies do not have to apply for or obtain a state permit unless required by another Federal law (2020 OCM Federal Consistency Overview; 65 FR at 77140 (2000); and 15 CFR 930.39(e)). Under the CZMA implementing regulations, "the amount of detail in the evaluation of the enforceable policies, activity description and supporting information shall be commensurate with the expected coastal effects of the activity" 15 CFR 930.39(a).

This CD relies extensively upon the activity descriptions and analyses found in the NOS *Programmatic Environmental Impact Statement (PEIS) for Surveying and Mapping Projects in U.S. Waters for Coastal and Marine Data Acquisition*, which was prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. §§ 4321 et seq.). The Draft PEIS is available [here](#)⁴ and is incorporated by reference to this CD. On June 25, 2021, the Draft PEIS was published and a notification was distributed by email to all state coastal management program managers and federal consistency contacts. The public comment period for the Draft PEIS closed on November 22, 2021. NOS received comments on the Draft PEIS from the CNMI DCRM on August 20, 2021. NOS has considered the recommendations and information provided by the CNMI DCRM in the development of the Final PEIS and this CD.

The activities to be implemented by NOS are described in the Draft PEIS, Chapter 2 – Description of the Proposed Action and the Alternatives. Reasonably foreseeable environmental effects are described in Chapter 3 of the Draft PEIS. The list of mitigation measures can be found in Appendix A of this CD. These measures were developed through interagency consultations and coordination after publication of the Draft PEIS and will be incorporated into the Final PEIS.

1.1 PROPOSED ACTION, SCOPE, AND IMPACTS

The Draft PEIS contains a programmatic NEPA analysis covering a five-year period of NOS mapping and surveying activities. The Proposed Action evaluated in the Draft PEIS is to continue NOS's data collection

³ <https://www.noaa.gov/about/organization/noaa-organization-chart>

⁴ <https://oceanservice.noaa.gov/about/environmental-compliance/surveying-mapping.html>

projects in the U.S. territorial sea, the contiguous zone, the U.S. Exclusive Economic Zone (U.S. EEZ), U.S. rivers, and states' offshore waters, and some supporting activities in coastal and riparian lands such as the installation of tide gauges. It was determined that a programmatic approach was appropriate because NOS conducts, authorizes, permits, and funds a suite of similar, ongoing data collection activities associated with recurring projects across a wide geographic area to characterize underwater features (e.g., habitat, bathymetry, marine debris). This Draft PEIS is a comprehensive document that provides detailed analyses of the environmental impacts of surveying and mapping data collection activities based on regional conditions, habitat types, species, and other factors. However, the Draft PEIS does not identify the specific time or place for individual projects or activities over the next five years. 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. Section 1.3 of the Draft PEIS contains detailed information on the programmatic scope of the analysis.

The geographic scope of the Draft PEIS encompasses the U.S. territorial sea; the contiguous zone; the U.S. Exclusive Economic Zone; rivers; states' coastal waters; and coastal and riparian lands. This includes the U.S. portions of the Great Lakes and internal waters such as Lakes Tahoe, Mead, Champlain, Okeechobee, and parts of major rivers. The action area is organized into five regions: Greater Atlantic Region, Southeast Region, West Coast Region, Alaska Region, and Pacific Islands Region. For the purpose of this CD, NOS mapping and surveying activities should be presumed to take place anywhere in the waters of the CNMI or in nearshore terrestrial areas, subject to applicable mitigation measures.

NOS 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. NOS 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. The only terrestrial activities projects would be the installation, maintenance, and removal of tide gauges and GPS reference stations.

The Draft PEIS assesses three alternatives to the Proposed Action: Alternative A, the No Action Alternative, reflecting the technology, equipment, scope, and methods currently in use by NOS at the current level of effort (i.e., the status quo); Alternative B, under which NOS would increase the adoption of new technologies to more efficiently perform surveying, mapping, charting and related data gathering; and Alternative C, which also includes the adoption of new techniques and technologies and includes an overall funding increase of 20 percent. NOS has identified Alternative B as the preferred alternative in the Draft PEIS. Therefore, this CD provides effects determinations for the Proposed Action under Alternative B. The anticipated impacts from Alternative B would be adverse, ranging from negligible to moderate, and insignificant, except for the environmental consequences to socioeconomic resources which are anticipated to be indirect, beneficial, and moderate.⁵ NOS would re-initiate the Consistency Determination process if a different alternative is selected.

⁵ Significance criteria are defined in detail for each resource in the Draft PEIS.

1.2 OTHER FEDERAL AGENCY CONSULTATIONS

In addition to facilitating reviews under CZMA, NOS is engaging in interagency coordination and consultation on the Endangered Species Act (ESA), Marine Mammal Protection Act (MMPA), Magnuson-Stevens Fishery Conservation and Management Act (MSA) for Essential Fish Habitat (EFH), and National Marine Sanctuaries Act (NMSA). NOS has submitted an application for an Incidental Take Authorization to the National Marine Fisheries Service (NMFS) and a petition for Incidental Take Regulations to the U.S. Fish and Wildlife Service (USFWS) for marine mammal species. NOS will initiate project-specific consultations under Section 106 of the National Historic Preservation Act (NHPA) before commencing any activity with the potential to affect cultural or historic resources.

2.0 DESCRIPTION OF THE PROPOSED ACTIVITIES

NOS would operate a variety of equipment and technologies to gather accurate and timely data on the nature and condition of the marine and coastal environment, including:

- Project-Related Crewed Vessel Operations
- Anchoring
- Operation of Remotely Operated Vehicles (ROVs), Autonomous Surface Vehicles (ASVs), and Autonomous Underwater Vehicles (AUVs)
- Use of Echo Sounders
- Use of Acoustic Doppler Current Profilers (ADCPs)
- Use of Acoustic Communication Systems
- Use of Sound Speed Data Collection Equipment
- Operation of Drop/Towed Cameras, Video Systems, and Magnetometers
- Collection of Bottom Grab Samples
- Use of Passive Listening Systems
- SCUBA Operations
- Installation, Maintenance, and Removal of Tide Gauges and Tide Buoys
- Installation of GPS Reference Stations

A single project typically consists of multiple activities listed above and the nature and scope of projects can vary based on the combination of activities. For example, a single Coast Survey project may include the activities of vessel operation, echo sounder operation, anchor deployment, and sound speed data collection.

3.0 COASTAL EFFECTS OF THE PROPOSED ACTIVITIES

In the Draft PEIS, NOS analyzed potential impacts to habitats; marine mammals; sea turtles; fish; aquatic macroinvertebrates; EFH; seabirds, shorebirds and coastal birds, and waterfowl; cultural and historic resources; socioeconomic resources; and Environmental Justice (EJ). Environmental consequences from the Proposed Action are anticipated to be adverse, ranging from negligible to moderate, and insignificant, except for the environmental consequences to socioeconomic resources which are anticipated to be indirect, beneficial, and moderate. These significance criteria are defined by resource and a more complete description of impacts is provided in Chapter 3 of the Draft PEIS. The Proposed Action would provide the public and private sectors with nautical charts, benthic habitat condition maps, current and

tide charts, and other products that could support the management of coastal resources. The data collected by NOS are used to conserve, preserve, and restore ecological resources, including marine/aquatic wildlife and habitat, coral reefs, and cultural and historic resources. The sections below summarize the coastal effects of proposed NOS mapping and surveying activities organized by coastal resources and activities generally addressed by the state enforceable policies.

3.1 AIR AND WATER QUALITY

NOS assessed the potential impacts to air and water quality from vessel operations and equipment used during NOS projects. Vessels would emit a variety of criteria air pollutants including nitrogen oxides (NO_x), sulfur oxides (SO_x), particulate matter, volatile organic compounds (VOCs), carbon monoxide (CO), and GHG emissions (e.g., CO₂). NOS vessels would discharge treated sanitary domestic wastes from United States Coast Guard-approved Marine Sanitation Devices (MSDs). The assessment of these impacts can be found in Section 3.14.1 of the Draft PEIS. The potential impacts to air and water quality from air emissions, vessel discharges, and accidental spills would be minimized through compliance with the International Convention for the Prevention of Pollution by Ships (MARPOL) Annexes I, IV, V, and VI. NOS adheres to NOAA's environmental procedures which comply with the MARPOL annexes and relevant implementing legislation, regulations, and guidance. Overall, the impacts on air and water quality are expected to be imperceptible or undetectable.

3.2 WILDLIFE, FISH, AND HABITAT

NOS assessed the potential impacts to marine mammals; sea turtles; fish; aquatic macroinvertebrates; essential fish habitat; seabirds, shorebirds and coastal birds, and waterfowl; and their habitats. All surveying and mapping activities listed in Section 2.0 could impact these resources. Detailed analysis can be found in the following sections of the Draft PEIS: Section 3.5 (Marine Mammals); Section 3.6 (Sea Turtles); Section 3.7 (Fish); Section 3.8 (Aquatic Macroinvertebrates); Section 3.9 (Essential Fish Habitat); and Section 3.10 (Seabirds, Shorebirds and Coastal Birds, and Waterfowl). Among the impacts assessed, effects to marine mammals are expected to be limited to temporary behavioral disturbances from echosounders used for mapping. Impacts to marine and freshwater habitats would be limited to very small-scale bottom disturbance from anchoring, taking grab samples, and installing buoys. Birds, fish, and marine mammals may also experience temporary behavioral disturbance from vessel movements and presence. Serious injury and death could occur to birds and marine mammals in the unlikely event of a vessel strike. NOS developed mitigation measures in coordination and consultation with expert agencies including NMFS and USFWS to avoid and minimize any potential effects. Mitigation measures to protect wildlife, fish, and habitats include implementing mandatory invasive species prevention procedures, maintaining safe distances from protected species, following vessel speed restrictions in specific protected species habitats (e.g., North Atlantic right whale), and avoiding anchoring on sensitive bottoms. The full list of mitigation measures can be found in Appendix A. The overall Impacts to wildlife, fish, and habitat would be adverse, minor and insignificant as defined in the Draft PEIS

3.3 CULTURAL AND HISTORIC RESOURCES

NOS assessed the potential impacts to cultural and historic resources. Anchoring, the collection of bottom grab samples, and the installation/maintenance/removal of tide gauges and GPS reference stations could impact cultural and historic resources; however, all effects are anticipated to be avoided or minimized through NHPA consultation which will occur prior to commencing an individual project. Detailed analysis

can be found in Section 3.11 of the Draft PEIS. NOS developed mitigation measures in coordination and consultation with expert agencies including NMFS and USFWS to avoid and minimize any potential effects. Mitigation measures to protect cultural and historic resources include not collecting bottom samples on coral reefs, shipwrecks, obstructions, or hard bottom areas and selecting anchoring locations for which data have already been collected.

NOS will initiate project-specific consultations under Section 106 of the National Historic Preservation Act (NHPA) before commencing any activity with the potential to affect cultural or historic resources. Since NOS will continue to coordinate with SHPOs/THPOs, NHOs, and tribes in compliance with Section 106 of the NHPA, the impacts to cultural and historic resources would be adverse, moderate and insignificant as defined in the Draft PEIS.

3.4 FISHERIES

NOS assessed the potential impacts to fisheries, including fish, aquatic macroinvertebrates, EFH, and socioeconomic resources. Socioeconomic resources include commercial fishing, fish hatcheries and aquaculture, seafood processing, and seafood markets industries. All surveying and mapping activities listed in Section 2.0 could impact fisheries. Detailed analysis can be found in the following sections of the Draft PEIS: Section 3.7 (Fish), Section 3.8 (Aquatic Macroinvertebrates), Section 3.9 (Essential Fish Habitat), and Section 3.12 (Socioeconomic Resources). Among the impacts assessed, effects to fish include some stress responses without permanent physiological damage, and some disturbance to breeding, feeding, or other activities, but without any impacts on population levels; additionally, there would not be long-term changes in habitat availability and use or in fish behavior. NOS also assessed the impact of interactions with fishing gear and survey equipment on the fishing industry. The effects to commercial and recreational fishing from gear interaction is very unlikely. Data collected by NOS would have beneficial effects as that data is used to conserve, preserve, and restore ecological resources, including wildlife, fish, and habitat. The data would provide the public and private sectors with nautical charts, benthic habitat condition maps, current and tide charts, and other products that could support the management of fisheries. These products allow federal, state, and local governments to make informed decisions about fishing areas and other natural resource management issues. NOS developed mitigation measures in coordination and consultation with expert agencies including NMFS and USFWS to avoid and minimize any potential effects. Mitigation measures to protect fisheries include implementing mandatory invasive species prevention procedures and following MARPOL discharge protocols. NOS communicates with the public on future survey projects through announcements such as the annual [Office of Coast Survey story map](#)⁶ and, when appropriate, public “Notices to Mariners” to provide general information on timing and locations. This helps minimize interference with commercial and recreational fishing and reduces the potential for interactions with fishing gear like lobster traps. The full list of mitigation measures can be found in Appendix A of this CD. Overall, the impacts to fishery resources would be adverse, minor and insignificant as defined in the Draft PEIS. NOS data collection and the resulting improvements in charting and mapping are expected to have indirect, beneficial, and moderate impacts on the ocean economy.

⁶ <https://storymaps.arcgis.com/stories/33758b0990bb4e23a7b61323db3ae670> [accessed 8/11/2022]

3.5 SHORELINE/TERRESTRIAL CONSTRUCTION AND DEVELOPMENT

Some NOS projects under the Proposed Action would include the installation, maintenance, and removal of tide gauges and GPS reference stations, most of which are affixed to existing docks and piers or secured to rocks in more remote locations. Only very small areas would be disturbed, and any affected habitat components would be expected to recover post-installation. NOS developed mitigation measures in coordination and consultation with expert agencies including NMFS and USFWS to avoid and minimize any potential effects from the installation, maintenance, and removal of tide gauges and GPS reference stations. Before commencing any installation, NOS considers the presence of protected species, and assesses potential impacts on known cultural or historic resources in the area. Overall, the installation, maintenance, and removal of tide gauges and GPS reference stations are anticipated to have adverse, negligible to minor, and insignificant impacts on wildlife, fish, and habitat and cultural and historic resources as defined in the Draft PEIS.

3.6 IN-WATER CONSTRUCTION AND DEVELOPMENT

Some projects under the Proposed Action would include the installation of new moorings for tide buoys or the installation of measuring devices on submerged lands. This would require the installation of equipment on the seafloor and cause relatively small amounts (less than one square meter) of bottom substrate disturbance. NOS developed mitigation measures in coordination and consultation with expert agencies including NMFS and USFWS to avoid and minimize any potential effects from the installation of new moorings for tide buoys. NOS would ensure that all instruments in contact with the seafloor are properly secured to minimize bottom disturbance. Moorings would not be installed on coral reefs, vegetated bottoms, or other sensitive habitats. Overall, the installation of new moorings for tide buoys is anticipated to have adverse and negligible to minor and insignificant impacts on wildlife, fish, habitat, and cultural and historic resources as defined in the Draft PEIS.

3.7 DREDGING, REMOVAL, AND RELOCATION OF SEDIMENTS

The Proposed Action does not include dredging; however, it does include disturbance of small amounts of sediment. Collection of bottom grab samples typically involves disturbing a negligible amount of sediment from a 6" by 6" grab sampler. NOS developed mitigation measures in coordination and consultation with expert agencies including NMFS and USFWS to avoid and minimize any potential effects from the collection of bottom grab samples. NOS would pay particularly close attention to sensitive bottom habitats and avoid sampling these areas. Overall, the collection of bottom grab samples is anticipated to have adverse, negligible to minor, and insignificant impacts on wildlife, fish, habitat, and cultural and historic resources as defined in the Draft PEIS.

4.0 CONSISTENCY DETERMINATION FOR THE ENFORCEABLE POLICIES OF THE CNMI COASTAL PROGRAM

CNMI consists of 14 islands that span 440 miles of the western Pacific Ocean. The Division of Coastal Resources Management (DCRM) serves as the lead agency for the Northern Mariana Islands Coastal Management Program. In 1980, NOAA approved the Commonwealth's coastal management program. Due to the small size of the islands, the entire land and water area of the Commonwealth is included within the coastal zone (OCM, No Date).

4.1 SUMMARY OF FINDINGS

NOS has identified the enforceable policies of the CNMI Coastal Management Program that are applicable to the Proposed Action. Table 1 presents a brief summary of the consistency determinations for each enforceable coastal policy.

Table 1. Summary of Findings

Enforceable Coastal Policy	Consistency Determination
Part 001 – General Provisions: Definitions	Not Relevant
Part 200 – CRM Permit Process: Application	Not Relevant
Part 200 – CRM Permit Process: Decision on Permit Process	Not Relevant
Part 300 – Standards for CRM Permit Issuance: General Criteria	Not Relevant
Part 300 – Standards for CRM Permit Issuance: Specific Criteria	Consistent
Part 500 – Standards for Major Siting: Specific Criteria	Consistent
Part 600 – CRM Permit Conditions: Mandatory Conditions	Not Relevant
Part 700 – CRM Permit Amendment: Transfer of Interest	Not Relevant
Part 800 – Enforcement of CRM Permits: Permit Enforcement Notice	Not Relevant
Part 800 – Enforcement of CRM Permits: Remedies	Not Relevant
Part 1200 – CRM Public Records Retention	Not Relevant
DEQ Well Drilling and Well Operations: Purpose	Not Relevant
DEQ Well Drilling and Well Operations: Groundwater Management Zones	Not Relevant
DEQ Wastewater Treatment and Disposal Rules and Regulations: Definitions	Not Relevant
DEQ Wastewater Treatment and Disposal Rules and Regulations: Animal Waste Management	Not Relevant
DEQ Water Quality Standards: Classification and Establishment of Water Use Areas	Consistent
DEQ Water Quality Standards: Specific Water Quality Criteria	Consistent
DEQ Water Quality Standards: Mixing Zone in Receiving Waters	Not Relevant
Public Law No. 3-47	Consistent
DEQ Air Pollution Control Regulations	Consistent
DEQ Drinking Water Regulations	Consistent
DEQ Underground Injection Control Regulations	Not Relevant

4.2 CNMI STANDARDS AND CRITERIA FOR REVIEW

4.2.1 Part 001 – General Provisions: Definitions (15-10-020)

These enforceable policies refer to general definitions.

Determination for NOS Activities: Not relevant. This section establishes definitions that are incorporated by reference in this Consistency Determination letter.

4.2.2 Part 200 – CRM Permit Process: Application (15-10-295)

These enforceable policies refer to the permit process.

Determination for NOS Activities: Not relevant. Federal agency activities must be consistent to the maximum extent practicable with the standards that underlie a state or territory permit. However, federal agencies do not have to apply for or obtain a state or territory permit (2020 OCM Federal Consistency Overview and 65 FR at 77140 (2000)). NOAA regulations at 15 CFR 930.39(e) further clarify that neither the CZMA nor OCM’s approval of state enforceable policies authorize the application of state or territory permit requirements to federal agencies unless required by a Federal law.

4.2.3 Part 200 – CRM Permit Process: Decision on Permit Process (15-10-230)

These enforceable policies refer to the permit process.

Determination for NOS Activities: Not relevant. Federal agency activities must be consistent to the maximum extent practicable with the standards that underlie a state or territory permit. However, federal agencies do not have to apply for or obtain a state or territory permit (2020 OCM Federal Consistency Overview and 65 FR at 77140 (2000)). NOAA regulations at 15 CFR 930.39(e) further clarify that neither the CZMA nor OCM’s approval of state enforceable policies authorize the application of state or territory permit requirements to federal agencies unless required by a Federal law.

4.2.4 Part 300 – Standards for CRM Permit Issuance: General Criteria (15-10-305)

The CRM Agency Officials and the DCRM Director shall consider all of the following when evaluating CRM permit applications, including those for APC developments permits, APC permits, and major siting permits:

(a) Cumulative Impact. The DCRM Director and CRM Agency Officials shall assess the “cumulative impact” of proposed projects as defined in § 15-10-020(x). This determination shall consider the impact of existing uses and activities on coastal resources and determine whether the added direct and secondary impact(s) of the proposed project seeking a CRM permit will result, when added to the existing use, in a significant degradation of the coastal resources. Consideration shall include potential coastal nonpoint source pollution, watershed setting, and receiving waters of the watershed in which a project is situated, and ability to accommodate future climatic change where relevant information is available. Where applicable, cumulative impact analysis should also consider, and minimize potential negative impacts to cultural resources and aesthetic enjoyment of coastal resources. Development proposals shall incorporate measures to avoid or minimize adverse impacts of the project. These measures shall be implemented at the applicant’s expense, and may include actions that minimize or avoid adverse impacts by limiting the magnitude or degree of the action or mitigation to restore the ecosystem functions or values of the affected environment.

(b) Compatibility. The DCRM Director and CRM Agency Officials shall determine, to the extent practicable, whether the proposed project is compatible with existing adjacent uses and is not contrary to designated land and water uses being followed or approved by the Commonwealth government, its departments or agencies.

(c) Alternatives. The DCRM Director and CRM Agency Officials shall determine whether or not a reasonable alternative site exists for the proposed project.

(d) Conservation. The DCRM Director and CRM Agency Officials shall determine, to the extent practicable, the extent of the impact of the proposed project, including construction, operation, maintenance and intermittent activities, on its watershed and receiving waters, marine, freshwater, wetland, and terrestrial habitat, and preserve, to the extent practicable, the physical and chemical characteristics of the site necessary to support water quality and living resources now and in the future.

(e) Compliance with Local and Federal Laws. The DCRM Director and CRM Agency Officials shall require compliance with federal and CNMI laws, including, but not limited to, air and water quality standards, land use, federal and CNMI constitutional standards, and applicable permit processes necessary for completion of the proposed project.

(f) Right to a Clean and Healthful Environment. Projects shall be undertaken and completed so as to maintain and, where appropriate, enhance and protect the Commonwealth's inherent natural beauty and natural resources, so as to ensure the protection of the people's constitutional right to a clean and healthful environment.

(g) Effect on Existing Public Services. Activities and uses which would place excessive pressure on existing facilities and services to the detriment of the Commonwealth's interests, plans and policies, shall be discouraged.

(h) Adequate Access. The DCRM Director and CRM Agency Officials shall determine whether the proposed project would provide adequate public access to and along the shoreline.

(i) Setbacks. The DCRM Director and CRM Agency Officials shall determine whether the proposed project provides adequate space between the building footprint of a project and identified hazardous lands including floodplains, erosion-prone areas, storm wave inundation areas, air installation crash and sound zones, and major fault lines, unless it can be demonstrated that such development does not pose unreasonable risks to the health, safety, and welfare of the people of the Commonwealth, and complies with applicable laws.

(j) Management Measures for Control of Nonpoint Source Pollution. The DCRM Director and CRM Agency Officials shall determine if the management measures outlined in the permit application are adequate for the control of nonpoint source pollution resulting from project construction, operations, and maintenance, including intermittent activities such as repairs, routine maintenance, resurfacing, road or bridge repair, cleaning, and grading, landscape maintenance, chemical mixing, and other nonpoint sources. DCRM may impose additional conditions to include management measures for control of nonpoint source pollution that are a result of particular site conditions, such as soil type, soil erodibility, soil permeability, slope, drainage patterns and other issues, in order to prevent potential nonpoint source pollution impacts on adjacent or downstream APCs.

(k) Buffers for environmentally sensitive areas. The DCRM Director and CRM Agency Officials shall determine the adequacy of vegetative buffer zones between the project footprint and environmentally sensitive areas including high risk flood zones, wetlands, and highly erodible slopes, and shorelines, considering current conditions and future projections as they are available and applicable.

Determination for NOS Activities: Consistent. Some NOS projects under the Proposed Action would include the installation, maintenance, and removal of tide gauges and GPS reference stations, most of which are affixed to existing docks and piers or secured to rocks in more remote locations. Geodetic “benchmarks” must be installed near each water level station. They are typically established in a variety of permanent structures, including surface markers, or deep driven stainless-steel rods when existing structures are not available. Only very small areas would be disturbed, and any affected habitat components would be expected to recover post-installation. NOS developed mitigation measures in coordination and consultation with expert agencies including NMFS and USFWS to avoid and minimize any potential effects from the installation, maintenance, and removal of tide gauges and GPS reference stations. Before commencing any installation, NOS considers the presence of protected species, and assesses potential impacts on known cultural or historic resources in the area. Due to the small area affected, nonpoint controls are unnecessary. Some projects under the Proposed Action would include the installation of new moorings for tide buoys or the installation of measuring devices on submerged lands. This would require the installation of equipment on the seafloor and cause relatively small amounts (less than one square meter) of bottom substrate disturbance. NOS developed mitigation measures in coordination and consultation with expert agencies including NMFS and USFWS to avoid and minimize any potential effects from the installation of new moorings for tide buoys. NOS would ensure that all instruments in contact with the seafloor are properly secured to minimize bottom disturbance. Moorings would not be installed on coral reefs, vegetated bottoms, or other sensitive habitats. Examples of tide buoys are the two Hydrolevel™ GPS tide buoys currently owned by the Coast Survey Development Laboratory. They are approximately 26” in diameter, weigh 58 kgs (128 lbs), have amber USCG light emitting diode (LED) lights visible from 3 miles away, and use sealed lithium batteries. A typical mooring configuration includes 45 to 68 kgs (100 to 150 lbs) of anchoring mass (usually a combination of 23-kg (50-lb) primary anchor and several 7-kg (15-lb) “mushroom” anchors) and a heavy chain, with a total footprint of approximately 1 square meter (3 ft). NOS would ensure that all instruments in contact with the sea floor are properly secured to minimize bottom disturbance. The cumulative impacts of the Proposed Action in combination with past, present, and reasonably foreseeable future actions were analyzed in the Draft PEIS.

4.2.5 Part 300 – Standards for CRM Permit Issuance: Specific Criteria (15-10-310)

Areas of Particular Concern: Lagoon and Reefs, Managaha and Anjota Islands, Coral Reefs, Wetlands and Mangroves, Ports and Industrial Areas, Coastal Hazards.

Determination for NOS Activities: Consistent. Some NOS projects under the Proposed Action would include the installation, maintenance, and removal of tide gauges and GPS reference stations, most of which are affixed to existing docks and piers or secured to rocks in more remote locations. Only very small areas would be disturbed, and any affected habitat components would be expected to recover post-installation. Installation of equipment on the sea bed, such as the installation of new moorings for tide buoys would cause relatively small amounts (one square meter) of bottom substrate disturbance. NOS would ensure that all instruments in contact with the sea floor are properly secured to minimize bottom disturbance. Moorings would not be installed on coral reefs.

4.2.6 Part 500 – Standards for Determining Major Siting: Specific Criteria (15-10-105)

The CRM Agency Officials and the DCRM Director shall evaluate a proposed project found to constitute a major siting based on the specific criteria listed below, as well as the general criteria for all major siting and APC permits at § 15-10-301 and general standards at § 15-10-305. A major siting application must contain an evaluation by the applicant of the proposed project based on the criteria below, as required by § 15-10-206.

(a) Project Site Development. The proposed project site development shall be planned and managed so as to ensure compatibility with existing and projected uses of the site and surrounding area.

(b) Minimum Site Preparation. Proposed projects shall, to the extent practicable, be located at sites with pre-existing infrastructure, or which require a minimum of site preparation (e.g. excavation, filling, removal of vegetation, utility connection).

(c) Adverse Impact on Fish and Wildlife. The proposed project shall not adversely impact fragile fish and wildlife habitats, or other environmentally sensitive areas.

(d) Cumulative Environmental Impact. The proposed project site shall be selected and developed in order to avoid and minimize adverse primary, secondary, or cumulative environmental impacts.

(e) Full project proposal required. Environmental effects of proposed actions must be considered together if the actions are functionally or economically related to other actions. Project proposals must not be submitted "piecemeal" even if the project will be phased; rather, a full proposal must be submitted in order to assess potential direct and cumulative impacts.

(f) Future Development Options. The proposed project site shall not unreasonably restrict the range of future development options in the adjacent areas.

(g) Mitigation of Adverse Impacts. Wherever practicable, adverse impact(s) of the proposed project on the environment shall be mitigated. Mitigation shall include the incorporation of management measures for the control of nonpoint source pollution and with general management objectives to limit risk of loss and damage from sea level rise and coastal flooding. Where data is available, current and future risks should be considered when assessing potential direct, indirect, and cumulative impacts, and proposing avoidance, minimization, and mitigation measures. To limit avoidable impacts from coastal hazards, major siting proposals must meet or exceed flood hazard reduction standards as codified in Chapter 155-10.2, Part 200.

(h) Cultural-historical/Scenic Values. Consider siting alternatives that promote the Commonwealth's goals with respect to cultural, historical, and scenic values.

(i) Watershed Conservation. In regard to site development (including roads, highways, and bridges), avoid development, to the extent practicable, of areas that are particularly susceptible to erosion and sediment loss; preserve areas that provide important water quality benefits and/or are necessary to maintain riparian and aquatic biota; and/or protect to the extent practicable the natural integrity of water bodies and natural drainage systems.

Determination for NOS Activities: Consistent. Section 3.0 summarizes the coastal effects of proposed NOS mapping and surveying activities organized by coastal resources and activities generally addressed by the state and territory enforceable policies. Federal agency activities must be consistent to the maximum extent practicable with the standards that underlie a state or territory permit. However, federal agencies do not have to apply for or obtain a state or territory permit (2020 OCM Federal Consistency Overview and 65 FR at 77140 (2000)). NOAA regulations at 15 CFR 930.39(e) further clarify that neither the CZMA nor OCM's approval of state enforceable policies authorize the application of state or territory permit requirements to federal agencies unless required by a Federal law.

4.2.7 Part 600 – CRM Permit Conditions: Mandatory Conditions (15-10-610)

These enforceable policies refer to permit conditions.

Determination for NOS Activities: Not relevant. Federal agency activities must be consistent to the maximum extent practicable with the standards that underlie a state or territory permit. However, federal agencies do not have to apply for or obtain a state or territory permit (2020 OCM Federal Consistency Overview and 65 FR at 77140 (2000)). NOAA regulations at 15 CFR 930.39(e) further clarify that neither the CZMA nor OCM's approval of state enforceable policies authorize the application of state or territory permit requirements to federal agencies unless required by a Federal law.

4.2.8 Part 700 – CRM Permit Amendment: Transfer of Interest (15-10-705)

These enforceable policies refer to permit amendments.

Determination for NOS Activities: Not relevant.

4.2.9 Part 800 – Enforcement of CRM Permits: Permit Enforcement Notice (15-10-815)

These enforceable policies refer to permit enforcement.

Determination for NOS Activities: Not relevant.

4.2.10 Part 800 – Enforcement of CRM Permits: Remedies (15-10-830)

These enforceable policies refer to permit enforcement.

Determination for NOS Activities: Not relevant.

4.2.11 Part 1200 – CRM Public Records Retention (15-10-1201)

These enforceable policies refer to public records retention.

Determination for NOS Activities: Not relevant.

4.2.12 DEQ Well Drilling and Well Operations: Purpose (65-140-005)

These enforceable policies refer to well drilling and well operations regulations.

Determination for NOS Activities: Not relevant. The Proposed Action does not involve well drilling or well operations.

4.2.13 DEQ Well Drilling and Well Operations Regulations: Groundwater Management Zones (Part 2000)

These enforceable policies refer to well drilling and well operations regulations.

Determination for NOS Activities: Not relevant. The Proposed Action does not involve well drilling or well operations.

4.2.14 DEQ Wastewater Treatment and Disposal Rules and Regulations: Definitions (65-120-010)

These enforceable policies refer to wastewater treatment and disposal rules and regulations.

Determination for NOS Activities: Not relevant. This section establishes definitions that are incorporated by reference in this Consistency Determination letter.

4.2.15 DEQ Wastewater Treatment and Disposal Rules and Regulations: Animal Waste Management (65-120, Part 1700)

These enforceable policies refer to animal waste management.

Determination for NOS Activities: Not relevant. The Proposed Action would not involve the generation of animal waste.

4.2.16 DEQ Water Quality Standards: Classification and Establishment of Water Use Areas (65-130, Part 200)

These enforceable policies refer to classification and establishment of water use areas in § 65-130-201 Rota; § 65-130-205 Tinian and Aguigan; § 65-130-210 Saipan; and § 65-130-215 Northern Islands.

Determination for NOS Activities: Consistent. The Proposed Action would occur in water use areas.

4.2.17 DEQ Water Quality Standards: Specific Water Quality Criteria (65-130, Part 400)

These enforceable policies refer to water quality criteria in § 65-130-401 Microbiological Requirements; § 65-130-405 pH; § 65-130-410 Nutrients; § 65-130-415 Dissolved Oxygen; § 65-130-420 Total Filterable Suspended Solids; § 65-130-425 Salinity; § 65-130-430 Temperature; § 65-130-435 Turbidity; § 65-130-440 Radioactive Materials; § 65-130-445 Oil and Petroleum Products; § 65-130-450 Toxic Pollutants; and § 65-130-455 General Considerations.

Determination for NOS Activities: Consistent. The Proposed Action's potential impacts to water quality from wastewater discharges and accidental spills are minimized through compliance with comprehensive maritime protocols, namely the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78 Annexes). NOS adheres to NOAA's environmental procedures which comply with MARPOL 73/78 and relevant water quality implementing legislation, regulations, and guidance. For example, discharge restrictions for vessel waste and

emissions management include handling all hazardous and regulated materials in accordance with applicable laws and appropriately training crew members in materials storage and usage. In the Draft PEIS, the effects from accidental leakage or spillage of oil, fuel, and chemicals is briefly analyzed where the impacts may be detectable in the context of other resources.

4.2.18 DEQ Water Quality Standards: Mixing Zone in Receiving Waters (Part 500)

These enforceable policies refer to mixing zone criteria and regulations in § 65-130-501 Mixing Zones; When Permitted; § 65-130-510 Prevention, Control, and Abatement; § 65-130-515 Time Limit for Mixing Zone; § 65-130-520 Mixing Zone Characteristics; § 65-130-525 Criteria for Mixing Zone; and § 65-130-530 Dredging and Discharge of Dredged or Fill Material.

Determination for NOS Activities: Not relevant. The Proposed Action does not require the establishment of mixing zones.

4.2.19 Public Law No. 3-47

(a) It is the coastal resources management policy of the Commonwealth to:

- (1) Encourage land use master planning, flood plain management, and the development of zoning and building code legislation;
- (2) Promote, through a program of public education and public participation, concepts of resource management, conservation and wise development of coastal resources;
- (3) Promote more efficient resources management through:
 - (i) Coordination and development of resource management laws and regulations into a readily identifiable program;
 - (ii) Revision of existing unclear laws and regulations;
 - (iii) Improvement of coordination among Commonwealth agencies;
 - (iv) Improvement of coordination between Commonwealth and federal agencies;
 - (v) Establishment of educational and training programs for Commonwealth government personnel and refinement of supporting technical data;
- (4) Plan for and manage any use or activity with the potential for causing a direct and significant impact on coastal resources. Significant adverse impacts shall be mitigated to the extent practicable;
- (5) Give priority for water-dependent development and consider the need for water-related and water-oriented locations in its siting decisions;
- (6) Provide for adequate consideration of the national interest, including that involved in planning for, and in the siting of, facilities (including energy facilities in, or which significantly affect, the Commonwealth's coastal zone) which are necessary to meet requirements which are other than local in nature;
- (7) Not permit to the extent practicable, development of identified hazardous lands including flood plains, erosion-prone areas, storm wave inundation areas, air installation crash and sound zones and major fault

lines, unless it can be demonstrated that such development does not pose unreasonable risks to the health, safety or welfare of the people of the Commonwealth, and complies with applicable laws;

(8) Mitigate, to the extent practicable adverse environmental impacts, including those on aquifers, beaches, estuaries and other coastal resources while developing an efficient and safe transportation system;

(9) Require any development to strictly comply with erosion, sedimentation, and related land and water use districting guidelines, as well as other related land and water use policies for such areas;

(10) Maintain or improve coastal water quality through control of erosion, sedimentation, runoff, siltation, sewage and other discharges;

(11) Recognize and respect locations and properties of historical significance throughout the Commonwealth, and ensure that development which would disrupt, alter, or destroy these, is subject to Commonwealth laws and regulations;

(12) Recognize areas of cultural significance, the development of which would disrupt the cultural practices associated with such areas, which shall be subject to a consultation process with concerned ethnic groups and any applicable laws and regulations;

(13) Require compliance with all local air and water quality laws and regulations and any applicable federal air and water quality standards;

(14) Not permit, to the extent practicable, development with the potential for causing significant adverse impact in fragile areas such as designated and potential historic and archaeological sites, critical wildlife habitats, beaches, designated and potential pristine marine and terrestrial communities, limestone and volcanic forests, designated and potential mangrove stands and other wetlands;

(15) Manage ecologically significant resource areas for their contribution to marine productivity and value as wildlife habitats, and preserve the functions and integrity of reefs, marine meadows, salt ponds, mangroves and other significant natural areas;

(16) Manage the development of the local subsistence, sport and commercial fisheries, consistent with other policies;

(17) Protect all coastal resources, particularly sand, coral and fish from taking beyond sustainable levels and in the case of marine mammals and any species on the Commonwealth endangered species list, from any taking whatsoever;

(18) Encourage preservation and enhancement of and respect for, the Commonwealth's scenic resources through the development of, increased enforcement of, and compliance with, sign, litter, zoning, building codes, and related land use laws;

(19) Discourage, to the maximum extent practicable, visually objectionable uses so as not to significantly degrade scenic views;

(20) Encourage the development of recreation facilities which are compatible with the surrounding environment and land uses;

(21) Encourage the preservation of traditional rights of public access to and along the shorelines consistent with the rights of private property owners;

(22) Pursue agreements for the acquisition or use of any lands necessary to guarantee traditional public access to and along the shorelines; and

(23) Encourage agricultural development and the preservation and maintenance of critical agricultural lands for agricultural uses.

(b) All departments, agencies, offices, and instrumentalities of the Commonwealth government shall take action to incorporate the above-listed policies into their programs and to conduct their activities in a manner consistent with these policies

Determination for NOS Activities: Consistent to the maximum extent practicable. The Proposed Action would support the goals outlined in the CNMI's coastal resources management policy. Data collected by NOS is used to conserve, preserve, and restore ecological resources, including wildlife, fish, and habitat. The data would provide the public and private sectors, including the DEQ, with nautical charts, benthic habitat condition maps, current and tide charts, and other products that could support the management of coastal resources. These products allow federal, state, and local governments to make informed decisions about fishing areas and other natural resource management issues.

NOS identified the following ESA-listed marine mammal species that may be found in the waters of the CNMI: Blue Whale, Fin Whale, Western North Pacific Humpback Whale, Sei Whale, Sperm Whale, and Dugong⁷. NOS estimated very few total behavioral disruption exposures for all of those species combined across the entire Pacific Island Region over the next five years. See Table 1. For determining potential impacts to these marine mammal species, NOS considered the amount of time individual animals would be exposed above the behavioral threshold and whether the acoustic sources emit sounds within the hearing range of those species. NOS estimated that the duration individual animals remained above the behavioral threshold would be approximately two to five minutes; therefore, temporal disruption and overall potential behavioral exposures to marine mammal species would be limited. Behavioral exposures need to occur over a timespan of weeks to have a population-level effect⁸. Any disruption that occurs for a matter of hours or for less than a day would not likely have a population-level impact. No Level A exposures are expected in the Pacific Island Region.

⁷ National Marine Fisheries Service. May 20, 2022. *Marine Protected Species of Mariana Islands*. Accessed at: <https://www.fisheries.noaa.gov/pacific-islands/endangered-species-conservation/marine-protected-species-mariana-islands>.

⁸ Southall, B., W. Ellison, C. Clark, D. Mann, and D. Tollit. 2016. A risk assessment framework to assess the biological significance of noise exposure on marine mammals. In Poster presented at the 21st Conference on the Biology of Marine Mammals.

Table 2. Annual Predicted Level B Exposures for All Species and Time in Seconds Above the Behavioral Disruption Threshold Under Alternative B

Species	Year 1	Year 2	Year 3	Year 4	Year 5
Pacific Islands Region					
Humpback whale, WNP	1.27	1.18	1.42	0.74	0.74
Sperm whale	1.27	0.59	1.27	0.59	0.59
Sei whale	0.77	0.40	0.77	0.40	0.40
Fin whale	0.50	0.28	0.50	0.28	0.28
Blue whale	0.07	0.03	0.07	0.03	0.03

NOTE: Exposures are based on a probabilistic model that is scaled by animal density and may therefore include fractional counts.

In coordination and consultation with NMFS and USFWS through the ESA and MMPA processes, NOS developed mitigation measures that include maintaining safe distances from protected species, decreasing vessel speeds after ESA-listed whale sightings, and following time-area restrictions in specific protected species habitats. Although behavioral exposures of marine mammals may occur in the waters of the CNMI, the potential for behavioral disturbances from the Proposed Action would be reduced through adherence with these mitigation measures.

4.2.20 DEQ Air Pollution Control Regulations

The enforceable policies in Chapter 65-10 of the Northern Mariana Islands Administrative Code (NMIAC) contain the Division of Environmental Quality (DEQ)'s air pollution control regulations including general requirements, general prohibitions, permit requirements, and regulations on open burning, minor sources, major sources, synthetic minor sources, agricultural burning, and hazardous air pollutant sources.

Determination for NOS Activities: Consistent. The Proposed Action does not involve the construction or operation of stationary sources of emissions and emissions from ocean-going vessels are exempt from needing a minor source permit. Vessels would emit a variety of criteria air pollutants as described in Section 3.14.1 of the Draft PEIS. The potential impacts to air quality would be minimized through compliance with MARPOL annexes and adherence to NOAA's environmental procedures and relevant implementing legislation, regulations, and guidance. Overall, the impacts on air quality are expected to be imperceptible or undetectable.

4.2.21 DEQ Drinking Water Regulations

The enforceable policies in Chapter 65-20 of the NMIAC contain the DEQ's drinking water regulations to establish certain minimum standards and requirements that are necessary to protect public health and safety, and to ensure that public water systems are protected from contamination and provide water that is safe for human consumption.

Determination for NOS Activities: Consistent. No impacts are expected to drinking water quality; the Proposed Action's potential impacts to water quality from wastewater discharges and accidental spills are minimized through compliance with comprehensive maritime protocols, namely MARPOL 73/78 Annexes and would not impact drinking water sources. NOS adheres to NOAA's environmental procedures which comply with MARPOL 73/78 and relevant water quality implementing legislation, regulations, and guidance. For example, discharge restrictions for vessel

waste and emissions management include handling all hazardous and regulated materials in accordance with applicable laws and appropriately training crew members in materials storage and usage. In the Draft PEIS, the effects from accidental leakage or spillage of oil, fuel, and chemicals are briefly analyzed where the impacts may be detectable in the context of other resources.

4.2.22 DEQ Underground Injection Control Regulations

The enforceable policies in Chapter 65-90 of the NMIAC contain the DEQ's underground injection control regulations to establish requirements for any underground injection of hazardous wastes, of fluids used for extraction of minerals, oil, and energy and of certain other fluids with potential to contaminate groundwater in order to protect underground sources of drinking water.

Determination for NOS Activities: Not relevant. The Proposed Action does not involve underground injection operations.

4.3 DETERMINATION

Based on the information, data, and analysis contained herein and in the Draft PEIS, NOS has determined that the Proposed Action is consistent with the enforceable policies of the CNMI Coastal Management Program.

Pursuant to 15 CFR § 930.41(a), the CNMI has 60 days from the receipt of this letter to concur with or object to this CD, or to request an extension under 15 CFR § 930.41(b). The CNMI's concurrence will be presumed if the CNMI's response is not received by NOS on the 60th day after receipt of this determination.

Thank you for assisting the National Ocean Service with this important program. Please submit your questions, comments, or other responses by email to the NOS Environmental Compliance Coordinator, Giannina DiMaio at nosaa.ec@noaa.gov or by phone at (240) 339-5565

REFERENCES

(OCM, No Date). Office for Coastal Management. No Date. Coastal Zone Management Programs. Accessed October 25, 2021 at: <https://coast.noaa.gov/czm/mystate/>.

APPENDIX A: MITIGATION MEASURES CURRENTLY PROPOSED BY NOS

Mitigation Measures for the Protection of NMFS Species During NOS Mapping and Surveying Activities

General Note: These requirements do not apply when (1) compliance would create an imminent threat to a person or vessel, or (2) to the extent that a vessel cannot comply because it is restricted in its ability to maneuver.

Triggering Event	Crew Response
General	
Vessel and equipment maintenance	All NOS projects would implement mandatory invasive species prevention procedures including, but not limited to, vessel and equipment washdown (including diving equipment), cleaning, and de-ballasting (exchange of ballast water in open ocean waters for those vessels used by NOS that have ballast tanks).
At all times while in transit or on-project	Do not attempt to feed, touch, ride, or otherwise intentionally interact with any marine protected species.
At all times while in transit or on-project	Vessel crew must maintain at least one Protected Species Observer at all times. This individual may perform other duties simultaneously. PSOs should use all means necessary to enhance visibility (e.g., spotlights, night vision, Forward Looking Infrared), and will be trained according to NOS Standard Operating Procedures.
Project Planning / Coordination	
Project planning and coordination	NOS would internally coordinate the location and timing of a given project, wherever possible, to ensure that areas are not repeatedly surveyed, except as needed to achieve research or monitoring goals.
	NOS would not perform surveys on or near ongoing Navy exercises.
General Area Restrictions for Vessel and Vehicle Movement	
Entry into North Atlantic right whale critical habitat	Report into the Mandatory Ship Reporting System.
Before proceeding with operations onboard a vessel 65 feet or longer in any right whale seasonal management areas, when those areas are active. See maps and coordinates on https://www.fisheries.noaa.gov/national/ endangered-species-conservation/reducing-vessel-strikes-north-atlantic-right-whales#:~:text=PDF%2C%201197%20pages)-	<p>Maintain a vessel speed of 10 knots or less.</p> <p>Check with various communication media for general information regarding avoiding ship strikes and specific information regarding North Atlantic right whale sighting locations. These include NOAA weather radio, U.S. Coast Guard NAVTEX broadcasts, the WhaleAlert app (www.whalealert.org), and Notices to Mariners. Commercial mariners calling on United States ports should view the most recent version of the NOAA/USCG produced training CD entitled “A Prudent Mariner’s Guide to Right Whale Protection” (contact the NMFS Southeast Region, Protected Resources Division for more information regarding the CD). For North Pacific right whales, contact the Alaska stranding hotline by sat phone, 877-925-7773.</p>

Mitigation Measures for the Protection of NMFS Species During NOS Mapping and Surveying Activities

General Note: These requirements do not apply when (1) compliance would create an imminent threat to a person or vessel, or (2) to the extent that a vessel cannot comply because it is restricted in its ability to maneuver.

Triggering Event	Crew Response
Vessel%20Speed%20Restrictions,endangered%20North%20Atlantic%20right%20whales.	
Transit areas cross North Pacific right whale critical habitat	Avoid transit through North Pacific right whale critical habitat. For unavoidable transits, vessels must maintain a speed of 10 knots or less.
Entry into Rice's whale areas (Core Distribution Area and the 100 - 400m isobath in the Gulf of Mexico).	<ul style="list-style-type: none"> a. minimize all transits b. do not exceed 10 knots c. do not enter at night. If vessels are present in the CDA/isobath at night, the vessel must be anchored, moored, or otherwise immobile.
Use of HRG sources in all areas north of the Forelands in Cook Inlet, Alaska. HRG surveys are defined as surveys using an electromechanical source that operates at frequencies less than 180 kHz, other than those defined at § 217.184(c)(1) (i.e., side-scan sonar, multibeam echosounder, or CHIRP sub-bottom profiler) per the 2020 BOEM BiOp on the Federally Regulated Oil and Gas Program Activities in the Gulf of Mexico.	The Forelands in Cook Inlet are described as 60°43'10.9"N 151°24'35.8"W (east side of the Inlet, Nikiski, AK) and West Foreland (60°42'48.1"N 151°42'38.3"W). For dedicated mapping and surveying work north of this area (i.e., a specific project involving the use of echo sounders), contact the Alaska Region (akr.prd.section7@noaa.gov) for instructions on how to proceed.
Entry into sensitive Steller sea lion areas	Maintain a vessel separation distance three nautical miles from Steller sea lion critical habitat, rookeries listed in (per 50 CFR 223.202), and other haulouts/rookeries as observed during operations. In areas of mandated charting, contact akr.prd.section7@noaa.gov on how to proceed.

Mitigation Measures for the Protection of NMFS Species During NOS Mapping and Surveying Activities

General Note: These requirements do not apply when (1) compliance would create an imminent threat to a person or vessel, or (2) to the extent that a vessel cannot comply because it is restricted in its ability to maneuver.

Triggering Event	Crew Response
Entry into sturgeon and sawfish critical habitat (see https://www.fisheries.noaa.gov/resource/map/atlantic-sturgeon-critical-habitat-map-and-gis-data, https://www.fisheries.noaa.gov/resource/map/smalltooth-sawfish-critical-habitat-map-and-gis-data, and https://data.noaa.gov/dataset/dataset/green-sturgeon-critical-habitat-gis-data1)	All vessels in coastal waters will operate in a manner to minimize propeller wash and seafloor disturbance, and transiting vessels should follow deep-water routes (e.g., marked channels), as practicable, to reduce disturbance to sturgeon and sawfish critical habitat.
Vessel Movement Restrictions	
An ESA-listed whale is identified within 500 yards of the forward path of the vessel.	All vessels must steer a course that increases the distance from the whale at a speed of 10 knots (18.5 km/hr) or less until the 500 yard minimum separation distance has been established.
An ESA-listed whale is sighted within 100 yards of the forward path of a vessel.	The vessel operator must reduce speed and shift the engine to neutral. Engines must not be engaged until the whale has moved outside of the vessel's path and beyond 500 yards. If stationary, the vessel must not engage engines until the large whale has moved beyond 500 yards. A single cetacean at the surface may indicate the presence of submerged animals in the vicinity of the vessel; therefore, precautionary measures should always be exercised.
One or more cetaceans (whales, dolphins, or porpoises) are sighted while a vessel is underway.	Attempt to remain parallel to the animal's course if feasible. Avoid excessive speed or abrupt changes in direction until the cetacean has left the area.
One or more sea turtles are sighted while the vessel is underway.	Attempt to maintain a distance of 50 yards (45 meters) or greater whenever possible.
Nighttime vessel operation	Vessel operators on project vessels operating at night would use the appropriate lighting to comply with navigation rules and best safety practices. All project areas would be continually monitored for protected species by posted crewmembers during vessel operations.
Reporting Requirements	

Mitigation Measures for the Protection of NMFS Species During NOS Mapping and Surveying Activities

General Note: These requirements do not apply when (1) compliance would create an imminent threat to a person or vessel, or (2) to the extent that a vessel cannot comply because it is restricted in its ability to maneuver.

Triggering Event	Crew Response
Sighting of any injured, dead, or entangled right whales	Report sighting immediately to the U.S. Coast Guard via VHF Channel 16.
Sighting of any injured, dead, or entangled ESA-listed species	Immediately report to NMFS at: https://www.fisheries.noaa.gov/report
Sightings of critically endangered cetaceans including North Atlantic right whale, North Pacific right whale, Southern Resident killer whale, Main Hawaiian Island insular false killer whale, and Rice's whale	Report sighting within two hours of occurrence when practicable and no later than 24 hours after occurrence (to https://www.fisheries.noaa.gov/report). Right whale sightings in any location may also be reported to the U.S. Coast Guard via VHF channel 16 and through the WhaleAlert App (http://www.whalealert.org/).
Discharge Restrictions	
Sighting of any protected marine species within 100 yards of the vessel	Do not discharge
Operating or maintaining a vessel	Follow the International Convention for the Prevention of Pollution from Ships (MARPOL) discharge protocols
	Meet all Environmental Protection Agency (EPA) Vessel General Permits and Coast Guard requirements.
	Use anti-fouling coatings.
	Clean hull regularly to remove aquatic nuisance species.
	Avoid cleaning of hull in critical habitat.
	Avoid cleaners with nonylphenols.
Restrictions on Instrument / Autonomous System Deployment	
Sighting of any protected marine species within 100 yards of the work area	Suspend deployment of all instruments, divers, and autonomous systems. Work already in progress may continue if that activity is not expected to adversely affect the animal(s).
AUV operation	Equipment such as AUVs would be programmed and operated to avoid sea floor disturbance.
Bottom sampling for sediment verification	NOS would not collect bottom samples for sediment verification on coral reefs, shipwrecks, obstructions, or hard bottom areas.
Instrument Deployment	NOS would ensure that all instruments placed in contact with the seafloor are properly secured to minimize bottom disturbance. NOS would use retrievable instruments, when possible, to avoid abandoning deployed equipment on the seafloor.

Mitigation Measures for the Protection of NMFS Species During NOS Mapping and Surveying Activities

General Note: These requirements do not apply when (1) compliance would create an imminent threat to a person or vessel, or (2) to the extent that a vessel cannot comply because it is restricted in its ability to maneuver.

Triggering Event	Crew Response
Anchoring	Do not anchor in coral critical habitat or other known areas of coral.
	Avoid anchoring in abalone habitat as defined at https://www.fisheries.noaa.gov/resources/maps?title=&term_node_tid_depth%5B1000000069%5D=1000000069&field_species_vocab_target_id=black+abalone&sort_by=created
	Avoid anchoring in seagrass.
	Vessel operators would not drag anchor chains.
	Vessel operators would select the anchor location based on depth, protection from seas and wind, and bottom type. Preferred bottom types are sticky mud or sand, as those characteristics allow the flukes of the anchor to dig into the bottom and hold the chain in place. When working in an un-surveyed area or in an area that has not been surveyed in many years, the ship would try to anchor in bays where data have already been collected, providing the ship with better information on where to drop the anchor.
Equipment/Autonomous Systems Deployment	Stiffer line materials should be used for towing and kept taut during operations to reduce the potential for entanglement in bottom features such as coral habitats and shipwrecks.
SCUBA/ Snorkeling Restrictions	
When using a boat or platform to conduct SCUBA or snorkeling operations	At least one person should maintain a visual watch for mobile protected species to ensure none are sighted within the working area. If a listed species moves into the area of work, cessation of operation of any moving equipment within 50 ft of animal should occur. Activities may resume once the species has departed the project area of its own volition.
Diving on or near coral	Divers/snorkelers/swimmers should not stand or rest on live corals/coral reefs. Bottom contact should only be in unconsolidated areas or non-living hardbottom.

Mitigation Measures for the Protection of NMFS Species During NOS Mapping and Surveying Activities

General Note: These requirements do not apply when (1) compliance would create an imminent threat to a person or vessel, or (2) to the extent that a vessel cannot comply because it is restricted in its ability to maneuver.

Triggering Event	Crew Response
At all times during SCUBA or snorkel operations	SCUBA divers/snorkelers involved in in-water activities should have proper training and be capable of responsible dive/snorkel practices (e.g., proper buoyancy) such that they minimize injury to organisms, avoid unnecessary habitat impacts, and avoid injury to sensitive archaeological materials. It is the responsibility of NOAA or grantees/contractors to ensure that divers/snorkelers are trained to a level commensurate with the type and conditions of the diving activity being undertaken. Divers shall use appropriate dive equipment and tools, expert boat anchoring (e.g., hand placement by divers/snorkelers or verified non-living bottom habitat before deployment), and have diver awareness. The organization must have the capacity (appropriate insurance, safety policies, etc.) to oversee all proposed diving/snorkeling activities. SCUBA divers will avoid inadvertent disturbance to the sea floor.
Restrictions on Buoy Deployment, Maintenance, and Retrieval	
At all times during buoy deployment, maintenance, or retrieval of a buoy	Ensure that any buoys attached to the sea floor use the best available mooring systems: all mooring lines and ancillary attachment lines must use one or more of the following measures to reduce entanglement risk: shortest practicable line length, rubber sleeves, weak-links, chains, cables or similar equipment types that prevent lines from looping, wrapping, or entrapping protected species. Buoys, lines (chains, cables, or coated rope systems), swivels, shackles, and anchor designs must prevent any potential entanglement of listed species while ensuring the safety and integrity of the structure or device. When possible, field crews should use retrievable equipment to avoid abandoning material on the seafloor.
	During all buoy deployment and retrieval operations, buoys should be lowered and raised slowly to minimize risk to listed species and benthic habitat. Additionally, PSOs or trained project personnel (if PSOs are not required) should monitor for listed species in the area prior to and during deployment and retrieval and work should be stopped if listed species are observed in the area to minimize entanglement risk.
	All buoys must be properly labeled with owner and contact information.

Mitigation Measures for the Protection of NMFS Species During NOS Mapping and Surveying Activities

General Note: These requirements do not apply when (1) compliance would create an imminent threat to a person or vessel, or (2) to the extent that a vessel cannot comply because it is restricted in its ability to maneuver.

Triggering Event	Crew Response
A live or dead marine protected species becomes entangled in buoy lines	Immediately contact the applicable NMFS stranding coordinator using the reporting contact details (see Reporting Requirements section) and provide any on-water assistance requested.

Mitigation Measures for the Protection of USFWS Species During NOS Mapping and Surveying Activities

General Note: These requirements do not apply when (1) compliance would create an imminent threat to a person or vessel, or (2) to the extent that a vessel cannot comply because it is restricted in its ability to maneuver.

Triggering Event	Crew Response
Vessel Operation	
Operating vessels in polar bear habitat	Ensure that vessels maintain a 1.6-km (1-mi) separation distance from polar bears observed on ice, land, or water.
	Be alert to potential presence of polar bears, visually monitor the area and adjacent waters. Be especially vigilant for swimming bears. If a swimming bear(s) is encountered, allow it to continue unhindered. Never approach, herd, chase, or attempt to lure swimming bear(s). Reduce speed when visibility is low and avoid sudden changes in travel direction.
	Navigate slowly, steer around polar bears, and do not approach, circle, pursue or otherwise force bears to change direction when observed in the water.
	Avoid multiple changes in direction and speed and do not restrict bears' movements on land or sea.
	Do not conduct activities within 1 mile (1.6 km) of known or suspected polar bear dens.
Operating vessels in Pacific walrus habitat	Maintain an appropriate minimum distance from walrus haulouts on ice or land: Marine vessels less than 50 feet (15 m) in length – 0.5 nm (1 km); Marine vessels 50 feet or more but less than 100 feet (30 m) in length – 1 nm (1.8 km); and Marine vessels 100 feet (30 m) or more in length – 3 nm (5.5 km).
	Reduce noise levels near haulouts. Avoid abrupt maneuvers, sudden changes in engine noise, using loudspeakers, loud deck equipment or other operations that produce noise when in the vicinity of walrus haulouts. Note that sound carries a long way across the water and often reverberates off of cliffs and bluffs adjacent to coastal walrus haulouts, amplifying noise. Do not operate the vessel in such a way as to separate members of a group of walrus from other members of the group.
	Reduce speed and maintain a minimum distance of 0.5 miles (0.8 km) from groups of walrus in the water.
	If walrus approach the vessel or are found to be in close proximity, place boat engines in neutral and allow the animals to pass. If vessel safety considerations prevent this, carefully steer around animals.

Mitigation Measures for the Protection of USFWS Species During NOS Mapping and Surveying Activities

General Note: These requirements do not apply when (1) compliance would create an imminent threat to a person or vessel, or (2) to the extent that a vessel cannot comply because it is restricted in its ability to maneuver.

Triggering Event	Crew Response
	When weather conditions require, such as when visibility drops, adjust speed accordingly to avoid the likelihood of injury to walrus.
Operating vessels in northern sea otter habitat	Do not operate vessels in such a way as to separate sea otters from other members of their group.
	If northern sea otters are observed in groups of fewer than 10 animals, do not approach within 100 m. If the group size is greater than 10, do not approach within 500 m.
Operating vessels in manatee habitat (U.S. Gulf coast and Atlantic Coast as far north as the Chesapeake Bay).	All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all personnel that there are civil and criminal penalties for harming, harassing, or killing manatees.
	All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
	All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shut down if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.
	Any collision with or injury to a manatee shall be reported immediately to the Texas Marine Mammal Stranding Network (TMMSN) Hotline at 1-888-9-MAMMAL. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Houston (1-281-286-8282).
Aircraft/UAS Operation	
Flying aircraft above Alaska waters and shorelines	Maintain an altitude of at least 205m (1000 ft) when flying over northern sea otters.
	Maintain an altitude of at least 457 m (1500 ft) when flying within 805 m (0.5 mi) of polar bears.

Mitigation Measures for the Protection of USFWS Species During NOS Mapping and Surveying Activities

General Note: These requirements do not apply when (1) compliance would create an imminent threat to a person or vessel, or (2) to the extent that a vessel cannot comply because it is restricted in its ability to maneuver.

Triggering Event	Crew Response
Operating crewed aircraft in polar bear areas.	Unless taking off from or landing at an airport/airstrip, pilots should maintain a minimum of 1,500 feet (457 m) flight altitude and 0.5-mile (0.8 km) horizontal distance from polar bears in the water, and on ice or land. Avoid circling or turning aircraft near polar bears.
Operating aircraft near walrus haulout (Aircraft guidelines to reduce likelihood of walrus take)	Do not fly autonomous system devices or single engine fixed wing aircraft over or within 0.5 miles (0.8 km) of walruses hauled out on land or ice
	If weather or aircraft safety require flight operations within 0.5 miles (0.8 km) of a haulout site, maintain a 2,000 feet (610 m) minimum altitude.
	Do not fly helicopters over or within 1 mile (1.6 km) of walruses hauled out on land or ice.
	If weather or aircraft safety require crewed flight operations within 1 mile (1.6 km) of a haulout site, maintain a 3000 feet (915 m) minimum altitude.
	Landings, take-offs, and taxiing of autonomous system devices or single engine fixed wing aircraft should not occur within 0.5 miles (0.8 km) of hauled out walruses, or within 1 mile (1.6 km) for helicopters.
	Avoid circling or turning near walruses hauled out on land or ice.
	If aircraft safety requires flight operations below recommended altitudes near a haulout, pass inland or seaward of the haulout site at the greatest lateral distance manageable for safe operation of the aircraft.
Shore Party Activities	
Operating on land in polar bear areas.	Avoid polar bears on land, ice, and water. Conduct activities at the maximum distance possible from polar bears.
	Be prepared. Have a human-bear safety plan that includes information on how to avoid and respond to bear encounters. Carry deterrents, and practice/know how to use them.
	Avoid surprise encounters. Travel in groups, make noise, and be vigilant - especially on barrier islands, in river drainages, along bluff habitat or ice leads/polynyas, near whale or other marine mammal carcasses, or in the vicinity of fresh tracks.
	Minimize attractants. Avoid carrying strongly scented attractants such as meat or fish while away from camp, or place them in air-tight containers to minimize odor transmission.

Mitigation Measures for the Protection of USFWS Species During NOS Mapping and Surveying Activities

General Note: These requirements do not apply when (1) compliance would create an imminent threat to a person or vessel, or (2) to the extent that a vessel cannot comply because it is restricted in its ability to maneuver.

Triggering Event	Crew Response
	Avoid disturbing denning bears. Between November and April, special care is needed to avoid disturbance of denning bears. If activities are to take place during that time period, USFWS should be contacted to determine if any additional mitigation is required. In general, activities are not permitted within one mile of known den sites.
If a polar bear is encountered	Prepare deterrent(s). Do not run from or approach polar bears. If the bear is unaware of you, allow it to continue what it was doing before you encountered it. Move to safe shelter (e.g., vehicle or building) if available, and wait until it is safe to proceed.
	Group up. If no safe shelter is available, group up with others and stand positioned to allow for safe deployment of deterrents (e.g., firearm, pistol launcher, bear pepper spray) – until the bear leaves.
	Observe bear behavior. Polar bears that stop what they are doing to turn their head or sniff the air in your direction have likely become aware of your presence. These animals may exhibit various behaviors: 1) Curious polar bears typically move slowly, stopping frequently to sniff the air, moving their heads around to catch a scent, or holding their heads high with ears forward. They may also stand up. 2) A threatened or agitated polar bear may huff, snap its jaws together, stare at you (or the object of threat) and lower its head to below shoulder level, pressing its ears back and swaying from side to side. 3) A predatory bear may sneak up on an object it considers prey. It may also approach in a straight line at constant speed without exhibiting curious or threatened behavior.
If a polar bear approaches	Defend your group. Any bear that approaches within range of your deterrents should be deterred. Stand your ground; do not run. Defend your group, increasing the intensity of your deterrence efforts as necessary. Be aware that lethal take of polar bears is permissible if such taking is imminently necessary in defense of human life. Defense of life kills must be reported to the USFWS within 48 hours.
	If a bear makes physical contact, fight back. If deterrence/lethal efforts have failed and a polar bear attacks (i.e., makes physical contact), do not “play dead”. Fight back using any deterrents available, aiming fists or objects at the bear’s nose and face.

Mitigation Measures for the Protection of USFWS Species During NOS Mapping and Surveying Activities

General Note: These requirements do not apply when (1) compliance would create an imminent threat to a person or vessel, or (2) to the extent that a vessel cannot comply because it is restricted in its ability to maneuver.

Triggering Event	Crew Response
Construction Projects	
Construction projects taking place along the shorelines in manatee habitat (U.S. Gulf coast and Atlantic Coast as far north as the Chesapeake Bay).	Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.
	All personnel associated with the project shall be instructed about the presence of manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees.
	All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shut down if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.
	Any collision with or injury to a manatee shall be reported immediately to the Texas Marine Mammal Stranding Network (TMMSN) Hotline at 1-888-9-MAMMAL. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Houston (1-281-286-8282).
	Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC must be used. One sign which reads Caution: Boaters must be posted. A second sign measuring at least 8 ½" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities.