



# NORTHEAST CANYONS AND SEAMOUNTS MARINE NATIONAL MONUMENT

Draft Management Plan and Environmental Assessment



# Northeast Canyons and Seamounts Marine National Monument

## Draft Management Plan and Environmental Assessment

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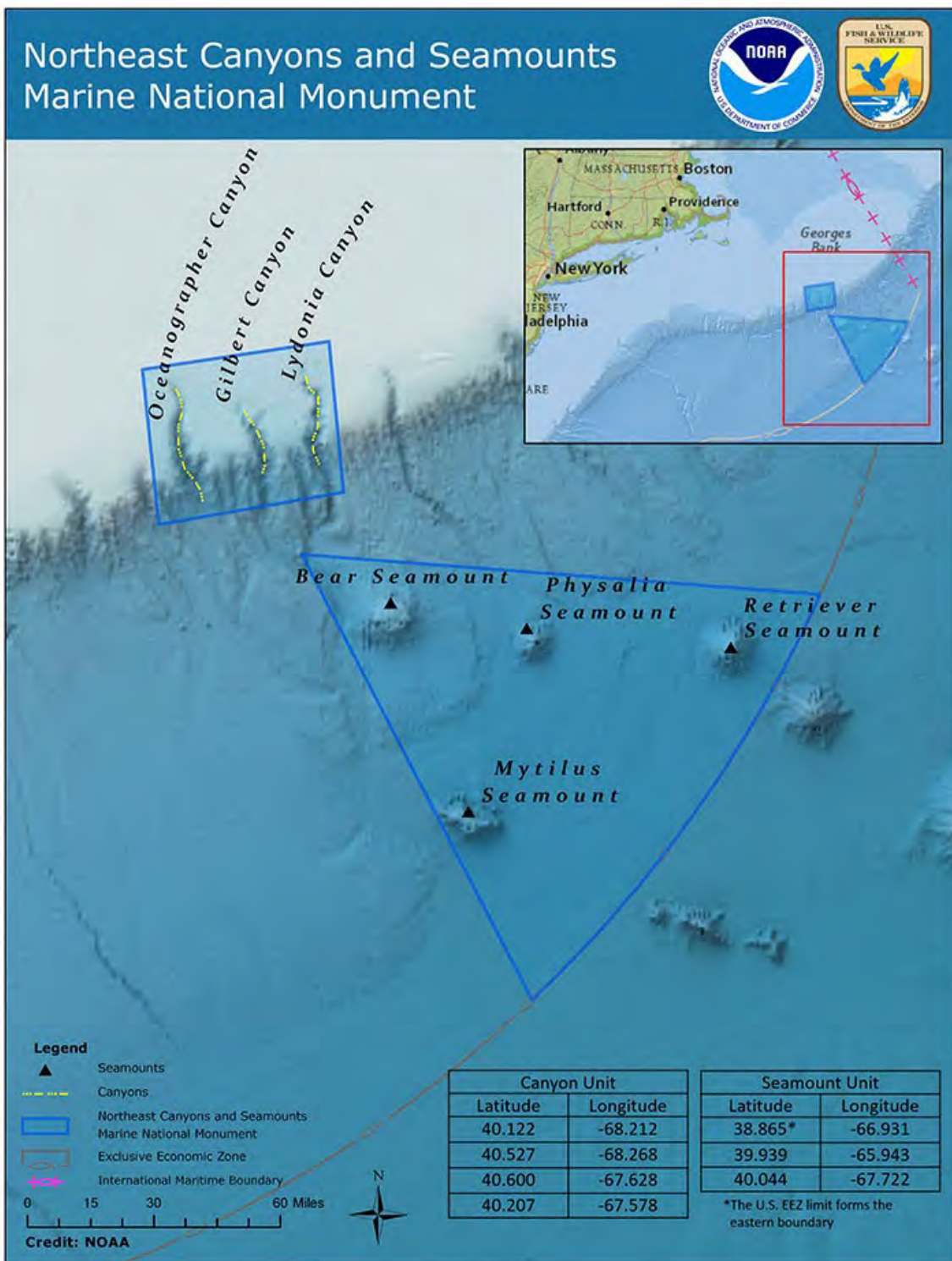


Figure 1 Map and coordinates showing the location of the Northeast Canyons and Seamounts Marine National Monument. The map shows the Monument's two separate units: the rectangular Canyons Unit, and the triangular Seamounts Unit.

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## List of Acronyms

AIS – Automatic Identification System

ALDFG – abandoned, lost, or otherwise discarded fishing gear

AUV – autonomously operated vehicle

EPA – Environmental Protection Agency

FACA – Federal Advisory Committee Act

FONSI – Finding of No Significant Impact

GARFO – Greater Atlantic Regional Fisheries Office

ICCAT – International Commission for the Conservation of Atlantic Tunas

NEPA – National Environmental Policy Act

NOAA – National Oceanic and Atmospheric Administration

NOAA Fisheries – National Marine Fisheries Service

PEIS – Programmatic Environmental Impact Statement

PREP – Preparedness for Response Exercise Program

QR – Quick Response

ROV – Remotely operated vehicle

U.S. – United States

USCG – U.S. Coast Guard

USFWS – U.S. Fish and Wildlife Service

USGS – U.S. Geological Survey

VMS – vessel monitoring system

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## Highlights

This draft management plan and environmental assessment was developed by the U.S. Fish and Wildlife Service (Service) and the National Oceanic and Atmospheric Administration (NOAA) for the Northeast Canyons and Seamounts Marine National Monument (Monument). The Monument is managed jointly by NOAA and the Service, which are referred to as the Monument management team. This is the Monument's first management plan.

- The Monument management team requests public comments on the draft management plan and environmental assessment for the Monument. Written comments will be accepted from September 12 to October 26, 2023 and will be accepted electronically and by mail. Verbal comments will be taken during six in-person and virtual public meetings. For more information on commenting, please visit the [Monument management plan website](https://www.fws.gov/project/monument-management-plan) at <https://www.fws.gov/project/monument-management-plan> (or scan the QR code to the right).
- Chapter 1 is the proposed draft management plan. It includes a section that describes the proposed permitting system to conduct various activities in the Monument.
- Chapter 2 of this document is a draft environmental assessment that evaluates the effects of the draft management plan, which is the Monument management team's preferred management plan alternative, on physical, biological, socioeconomic, cultural, and historical resources.
- In addition to the Chapter 1 draft management plan, the draft environmental assessment also evaluates two other management plan alternatives: a no action alternative in which no management plan would be adopted, and a third alternative in which the draft management plan (Chapter 1) would be adopted with modifications to the proposed permitting system.
- The draft management plan (Chapter 1) was developed based upon the feedback received during a robust public scoping process. The comments received during public scoping directly informed the development of alternatives and shaped the activities that are identified in the draft management plan (preferred alternative).
- The Monument management team will consider all comments received on the draft management plan and environmental assessment, determine whether to make any changes to the management plan and environmental assessment based on those comments, and include a written response to comments in the final management plan and environmental assessment.
- The Monument management team anticipates publishing the final management plan and environmental assessment in early 2024.



# 1. Draft Management Plan

## Vision

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*To preserve the Northeast Canyons and Seamounts Marine National Monument in perpetuity, and to inspire a sense of awe, wonder, and stewardship in current and future generations through discovery and exploration of the sea.*

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## Introduction

On September 15, 2016, the Northeast Canyons and Seamounts Marine National Monument (Monument) was established by [Presidential Proclamation 9496](#) (Appendix A) under the authority of the Antiquities Act of 1906, making it the first and only marine national monument in the Atlantic Ocean.

A [Presidential Proclamation 10049](#) issued on June 5, 2020 modified the Monument, reversing a prohibition on commercial fishing in the Monument. A third proclamation, [Presidential Proclamation 10287](#) (Appendix B), issued on October 8, 2021, reinstated the prohibition on commercial fishing in the Monument and instructed the Secretaries of Commerce and Interior to manage the Monument under the directives of the establishing Presidential Proclamation (9496).

The Monument is 3.1 million acres or 4,913 square miles, which is approximately the size of Connecticut. It is located 130 miles southeast of Cape Cod, Massachusetts, and is comprised of two units (Fig. 1). The smaller of the two units is the Canyons Unit, which encompasses three undersea canyons: Oceanographer Canyon, Gilbert Canyon, and Lydonia Canyon. The larger of the two units is the Seamounts Unit, which encompasses four undersea mountains: Bear Seamount, Physalia Seamount, Retriever Seamount and Mytilus Seamount. The seamounts are part of a long chain of extinct underwater volcanoes called the New England Seamount chain, which is the longest of its kind in the Atlantic Ocean.

## Monument Establishing Purpose

Established by Presidential Proclamation 9496 on September 15, 2016, the Monument's purpose is three-fold:

*To protect unique geologic features and vulnerable ecological communities of scientific interest, including corals and other structure-forming fauna that provide food, spawning habitat, and shelter for an array of fish and invertebrate species, and which are extremely sensitive to disturbance from extractive activities;*

*To provide opportunities for research and scientific exploration designed to further understanding of Monument resources and qualities or knowledge of the North Atlantic Ocean ecosystem and resources, and;*

*To provide opportunities for activities that will further the educational value of the Monument and connect people with its unique ecosystems.*



## Monument Environment

The area encompassed by the Monument has been the subject of scientific exploration and discovery since the 1970s.

The three canyons and four seamounts in the Monument are home to at least 58 species of deep-sea corals, which live at depths from 50 meters (164 feet) to more than 4,000 meters (13,123 feet) under the sea surface.

The corals, together with other structure-forming fauna, such as sponges and anemones, create a foundation for vibrant deep-sea communities, providing food, spawning habitat, and shelter for an array of fish and invertebrate species.

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*The shallowest spot in the Monument is 302 feet deep, which is the same height as a 25-story building.*

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*At 14,377 feet deep, the deepest spot in the Monument (Oceanographer Canyon) is twice as deep as the Grand Canyon.*

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*Bear Seamount is 1,912 feet taller than Mount Washington in New Hampshire, which is the tallest mountain in New England.*

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The shallowest seafloor depths in the Monument are just north of the canyon heads (shallow ends of the canyons) and are around 92 meters (302 feet). The deepest point in the canyons (Oceanographer Canyon) is 4,382 meters (14,377 feet) below sea level (Auster et al., 2020), more than twice the depth of the Grand Canyon.

Bear Seamount is the tallest of the four seamounts and its peak is approximately 2,499 meters (8,200 feet) from the sea floor. From its peak to the ocean surface is another 1,000 meters (3,280 feet) and its flat summit is 12 miles in diameter. Mytilus Seamount is the shortest of the four seamounts and its peak is 2,389 meters (7,838 feet or almost 1.5 miles) below sea level (Auster et al. 2020).

## Canyons Unit

Off the mid-Atlantic and New England coasts there are three major canyons that cut deep into the continental shelf and slope, as well as several smaller canyons that are confined to just the slope. These submarine canyons are susceptible to active erosion, landslides, and powerful ocean currents that transport sediments and organic carbon from the shelf down the canyons to the deep ocean floor. Hard bottom areas in the Monument's slope-incised Oceanographer, Gilbert, and Lydonia canyons, the slope-confined Filebottom and Chebacco canyons, and the slope areas in between the canyons provide habitats for sessile (fixed in one place) filter feeders, sponges, attached anemones, and deep-sea corals. Soft bottoms throughout these areas host other sessile species such as sea pens, burrowing anemones, brittle stars, and species that live in seafloor sediments, such as polychaete worms. Well-known mobile species that live close to the seafloor in the canyons include, but are not limited to, squids, octopus, skates (generally around soft bottoms), flounders (especially in soft bottoms), Acadian redfish, hakes, lobsters, and crabs. Many lesser known deepwater fish species also occur in the deeper portions of the Canyons Unit. Major oceanographic features, such as currents, temperature gradients, eddies, and fronts, interact with the steep fronts of the canyons and influence the distribution patterns of highly migratory oceanic species as tuna, billfish, and sharks. They provide feeding grounds for these and many other marine species.

Toothed whales, such as the endangered sperm whale, and many species of beaked whales are strongly attracted to the environments created by these submarine canyons. Surveys of the area show significantly higher numbers of beaked whales present in canyon regions than in non-canyon shelf-edge regions. Endangered sperm whales, iconic in the region due to their historic importance to New England's whaling communities, preferentially reside in the U.S. Atlantic continental margin. Two additional species of endangered whales (fin whales and sei whales) have also been observed in the Monument.

#### *Seamounts Unit*

The New England Seamount chain was formed as the Earth's crust passed over a stationary hot spot that pushed magma up through the seafloor. The chain is now composed of more than 30 extinct undersea volcanoes, running like a curved spine from the southern side of Georges Bank to midway across the western Atlantic Ocean. Many of the seamounts in the chain have characteristic flat tops that were created by erosion from ocean waves and subsidence as magma cooled.

Four of these seamounts are in the Monument: Bear, Physalia, Retriever and Mytilus. They are the only four of the New England Seamount chain that are located within the U.S. Exclusive Economic Zone<sup>1</sup>. All four of these seamounts have steep and complex topography that interrupts existing currents, providing a constant supply of plankton and nutrients to the animals that inhabit them, as well as causing upwelling of nutrient-rich waters toward the ocean surface. The seamounts also provide shelter from predators and serve as spawning and nursery areas for a multitude of species.

Being geographically isolated from the continental shelf, these seamounts support ecological communities that are hotspots of biodiversity in the deep ocean. Organisms include deep-sea corals that are hundreds or thousands of years old and a wide array of other benthic marine organisms not found on the surrounding deep-sea floor. The New England Seamounts are home to many rare and endemic species, several of which are new to science and are not known to occur anywhere else on Earth.

#### *Ecosystem Processes*

Together the Monument's canyons and seamounts create dynamic currents and eddies that enhance biological productivity and provide feeding grounds for seabirds and pelagic (open ocean) megafauna like whales, dolphins, and turtles, as well as highly migratory fish, such as tunas, billfish, and sharks. More than 10 species of shark, including white sharks, use the feeding grounds of the Monument.

Marine birds concentrate in upwelling areas near the canyons and seamounts. Several species of gulls, shearwaters, petrels, storm-petrels, alcids, gannets, skuas and terns, among others, are regularly observed in the region, sometimes in large aggregations. Recent analysis of geolocation data found that Maine's State Threatened Atlantic puffin frequents the Monument between

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<sup>1</sup> The exclusive economic zone is defined under the 1982 United Nations Convention on the Law of the Sea as an area of the ocean extending up to 200 nautical miles (370 kilometers) immediately offshore from a country's land and coast in which that country retains exclusive rights to the exploration and exploitation of natural resources.

September and March, indicating a previously unknown wintering habitat for this bird (Baran et al., 2022). The federally endangered Bermuda petrel (cahow) has been found to enter the Monument on long distance trips from its nesting grounds in Bermuda (Raine et al., 2022). Recent tracking studies have shown that the black-capped petrel, which is proposed to be listed under the Endangered Species Act and nests only on the island of Hispaniola in Haiti and the Dominican Republic, also migrates to and forages in the Monument (Satgé et al., 2022).

These canyons and seamounts have long been an area of intense scientific interest. Scientists from government and academic institutions have studied the canyons and seamounts using research vessels, submarines, and remotely operated underwater vehicles that have yielded many new discoveries. Yet much remains to be discovered about these unique, isolated environments and their geological, ecological, and biological resources.

#### *Human Cultural and Historical Connections*

More than 12,000 years ago, much of the continental shelf was exposed, dry land, including portions of the Canyons Unit. This land was home to many cultures and provided habitat for many prehistoric creatures during the last Ice Age, also known as the Pleistocene era. Mammoths and other large mammals roamed the canyon heads, which were also home to Paleo-Indian cultures. Lower sea levels allowed torrents of melting glacier water to carve the canyons into river valleys.

As sea levels rose, new and different cultural connections between people and the area that the Monument covers grew. Those waters became well traversed by vessels from across the world. This led to a rich maritime heritage that encompassed a diversity of cultures. Historically the Monument's waters have supported trades such as fishing, whaling, and shipping.

Of archaeological interest in the Monument are shipping lanes used for trade during the 17th and 18th centuries. The Monument was also an area of conflict during World Wars I and II, when allied shipping and military vessels were attacked by German U-boats. This area was a route for transatlantic immigration from the 18th through 20th centuries, with a peak from the 1830s to the 1920s. An unknown number of vessels were lost during this period, some without a trace, and it is possible some could lie in the Monument. There is much to yet learn about the diverse historical and cultural connections between people – past and present – and the Monument.

#### *Management Plan Goals*

During public scoping, three key themes came up repeatedly: stewardship, research, and education. These themes became the basis for the three key program areas in the proposed draft management plan: Management & Stewardship, Research & Exploration, and Engagement & Education.

Within these three key program areas, the Monument draft management plan identifies four goals for the next 15 years and each is connected to one of the three key program areas. These goals were developed based upon feedback from the public scoping process and consultations with subject matter experts. The goals are not presented in any priority order.

#### **PROGRAM AREA: MANAGEMENT & STEWARDSHIP**

##### **GOAL 1: CONSERVE AND PROTECT THE MARINE ECOSYSTEM WITHIN THE MONUMENT.**



**GOAL 2:** ESTABLISH STAFFING CAPACITY TO SUPPORT ESSENTIAL MANAGEMENT FUNCTIONS; AND DEVELOP PARTNERSHIPS TO ACHIEVE EFFECTIVE JOINT MANAGEMENT AND COMMUNITY STEWARDSHIP.

**PROGRAM AREA: RESEARCH & EXPLORATION**

**GOAL 3:** CONDUCT INNOVATIVE, COLLABORATIVE, AND INTERDISCIPLINARY RESEARCH AND EXPLORATION TO IMPROVE UNDERSTANDING OF BIOLOGICAL, PHYSICAL, CULTURAL, AND HISTORICAL RESOURCES IN THE MONUMENT.

**PROGRAM AREA: ENGAGEMENT & EDUCATION**

**GOAL 4:** INCREASE THE PUBLIC’S AWARENESS OF AND SENSE OF CONNECTION TO THE MONUMENT AND THE DEEP SEA.

*First Management Plan*

As the first management plan for the Monument, the goals, objectives, and activities described in this plan focus on establishing the building blocks and foundation for long-term, effective, collaborative management and community stewardship.

The draft management plan is organized around three program areas: Management & Stewardship, Research & Exploration, Engagement & Education. The draft management plan also includes a proposed permitting system that outlines the Service and NOAA’s proposed approach to issuing permits for activities in the Monument.

The Monument’s management plan is being developed in accordance with the National Environmental Policy Act (NEPA, 42 U.S.C. §§ 4321 *et seq.*). Chapter 2 of this document is a draft environmental assessment that evaluates the effects of the proposed draft management plan on the biological, physical, socioeconomic, cultural, and historical environment.

In addition to complying with NEPA, the management plan complies with numerous other laws, policies, and regulations. A description of how the proposed management plan complies with all relevant laws, policies and regulations can be found in the Chapter 2 draft environmental assessment.

*Joint Management Team*

Presidential Proclamation 9496 delegated management of the Monument to the Secretary of Interior and the Secretary of Commerce. The Service, represented by the Northeast Region’s National Wildlife Refuge System program, manages the Monument for the Department of the Interior. NOAA, represented by the National Marine Fisheries Service (NOAA Fisheries) Greater Atlantic Regional Fisheries Office, manages the Monument for the Department of Commerce. The Service and NOAA Fisheries jointly manage the Monument under their individual authorities and a joint Statement of Intent (Appendix C). The two agencies manage the Monument in cooperation with the Department of State, U.S. Navy (Navy), and U.S. Coast Guard (USCG).

Joint management of the Monument allows NOAA and the Service to combine their respective resources and management authorities, along with the complementary skills and expertise of their staffs, for the benefit of the Monument. Working together, the two agencies can provide more effective stewardship and management than either one could alone.

Joint management can also present challenges when it comes to resolving differences in agency perspectives and approaches, and resolving uncertainty around overlapping legal authorities. In developing their joint management practice, the Service and NOAA Monument staff (Monument management team) are committed to:

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*Extending trust and building camaraderie*

*Recognizing and utilizing each other's strengths*

*Resolving conflicts at the lowest possible organizational level*

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The aim is to create a cohesive management team that operates effectively, nimbly, and with passion for the work. Currently, the Monument management team is composed of one representative from the Service and one representative from NOAA: the Service Monument superintendent and the NOAA Monument lead.

The Monument management team meets on a regular basis, most often weekly. Additional NOAA and Service staff, including planners, advisors, marine resource staff, cultural and historical resource staff, visitor services and outreach staff, and agency leadership participate in the management team on an as-needed basis. Similarly, the Department of State, Navy and USCG have designated representatives to work on Monument-related issues. Those agency experts join the management team to address specific topics and issues on an as-needed basis. These agencies all have the option to formally join the management team at any point in time.

#### *U.S Fish and Wildlife Service Authorities*

The Service manages the Monument through its authorities under National Wildlife Refuge System Improvement Act and National Wildlife Refuge System Administration Act (16 U.S.C. §§ 668dd- 668ee, as amended), the Refuge Recreation Act (16 U.S.C. §§ 460k *et seq.*), the Endangered Species Act (16 U.S.C. §§ 1531 *et seq.*), Public Law 98-532, and Executive Order 6166 of June 10, 1933.

The Service, which is part of the Department of the Interior, is the principal Federal agency responsible for conserving, protecting, and enhancing the Nation's fish and wildlife populations and their habitats. The mission of the Service is "working with others, to conserve, protect, and enhance fish and wildlife and their habitats for the continuing benefit of the American people." National natural resources entrusted to the Service for conservation and protection include migratory birds, endangered and threatened species, inter-jurisdictional fish, wetlands, and certain marine mammals. The agency seeks to provide and enhance opportunities to participate in compatible wildlife-dependent recreation, and foster understanding and instill appreciation of the diversity and interconnectedness of fish, wildlife, plants, and their habitats.

The Monument is part of the Service's Northeast Region Wildlife Refuges Program. The Service's Northeast Region New England Ecological Services Field Office, Migratory Birds Program, Office of Law Enforcement, and Fish and Aquatic Conservation Program provide

conservation oversight for protected species in the Monument under the Endangered Species Act and Migratory Bird Treaty Act.

#### *NOAA Authorities*

The Greater Atlantic Regional Fisheries Office (GARFO), based in Gloucester, Massachusetts, is part of NOAA Fisheries, and is NOAA's lead line office for preparing and implementing this management plan with support from NOAA's Southeast Regional Office, NOAA's Highly Migratory Species Management Division, NOAA's Marine Monument Program in the Pacific, other NOAA line offices, and NOAA Fisheries' Northeast Fisheries Science Center.

GARFO works closely with the Northeast Fisheries Science Center through an integrated program to promote science-based management of the Monument's resources. Other NOAA line offices that support Monument management include the Office of Law Enforcement; National Ocean Service; National Environmental Satellite, Data and Information Services; National Weather Service, Program, Planning, and Integration; and the Office of Oceanic and Atmospheric Research.

In addition to shared responsibility for administration of the Endangered Species Act, NOAA Fisheries administers the Marine Mammal Protection Act and Magnuson-Stevens Fishery Conservation and Management Act. NOAA Fisheries supports both domestic and international marine resource management within the Atlantic and is responsible for assisting fishery management councils in the development of fishery management plans and amendments, drafting and implementing federal fishery regulations, issuing federal fishing permits and monitoring fisheries stocks. In accordance with the Atlantic Tunas Convention Act of 1975, NOAA is also responsible for administering and enforcing all provisions of the International Convention for the Conservation of Atlantic Tunas, to which the U.S. is a party. Other major NOAA responsibilities include exploration and research, ocean literacy, recovering protected species, maintaining resilient marine habitats, and monitoring compliance with fishery agreements and treaties.

#### *Department of State*

The U.S. Department of State formulates and implements U.S. policy on a wide variety of international issues that concern the ocean. The Office of Oceans and Polar Affairs, within the Department of State's Bureau for Oceans and International Environmental and Scientific Affairs, is responsible for formulating and implementing U.S. policy on international issues concerning the law of the sea, oceans, the Arctic, and Antarctica. In coordination with the Service and NOAA, the Office of Oceans and Polar Affairs promotes marine scientific research with an efficient authorization process and through support of several international scientific organizations.

Its ocean policy responsibilities at the international level include: protection of the marine environment from pollution and other anthropogenic threats through the International Maritime Organization, Regional Seas Programme, oil spill response, control of invasive species, and other means; conservation of marine biodiversity, including whales and other marine mammals, seabirds, and coral reefs; improvement of maritime security in order to protect the U.S. from terrorism and other criminal threats, and to protect freedom of navigation and maritime commerce; ensuring the consistency of coastal state maritime claims and regulations with



international law, and, protection of underwater cultural heritage, through participation in bilateral and multilateral international agreements, as well as through domestic policies.

#### *U.S. Coast Guard*

The U.S. Coast Guard (USCG) First District represents the USCG on the Monument management team. The draft management plan identifies strategies to build a strong partnership with the USCG, which is a leader in spill response, first responder and emergency response efforts, marine transportation management and analysis, and law enforcement in the marine environment.

The USCG is charged with a wide variety of missions in the maritime environment, including safeguarding the American people and promoting national security, border security, and economic prosperity. The USCG saves those in peril and protects the Nation from all maritime threats.

As a branch of the U.S. Armed Forces, a law enforcement organization, a regulatory agency, a member of the U.S. Intelligence Community, and a first responder, the USCG employs a unique mix of authorities, broad jurisdiction, flexible operational capabilities, and a network of partnerships. The USCG is the principal Federal agency responsible for maritime safety, security, and environmental stewardship in U.S. ports and inland waterways, along more than 95,000 miles of U.S. coastline, throughout the 4.5 million square miles of U.S. Exclusive Economic Zone, and on the high seas.

#### *U.S. Navy*

The Monument management team is coordinating with the U.S. Navy (Navy). The Navy is the maritime service branch of the U.S. Armed Forces, and its mission is to organize, train, and equip naval forces for the peacetime promotion of the national security interests and prosperity of the United States and for prompt and sustained combat incident to operations at sea. The Navy does not have any active training or testing areas that overlap with the Monument and does not anticipate needing to be actively involved in management of the Monument. However, naval forces are expected to transit through the Monument so continued coordination and communication with the Monument management team are important.

#### *Coordination with Native American governments*

In managing the Monument, the management team strives to fulfill its trust responsibility to federally recognized Native American governments through early and frequent government-to-government consultation and coordination.

The Monument management team invited 11 federally recognized and three state recognized Native American governments in

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#### **Federally recognized Native American governments invited to participate in management plan development:**

Mi'kmaq Nation, formerly Aroostook Band of Micmacs  
Houlton Band of Maliseet Indians  
Mashantucket Pequot Tribal Nation  
Mashpee Wampanoag Tribe  
Mohegan Tribe of Indians of Connecticut  
Narragansett Indian Tribe  
Passamaquoddy Tribe - Indian Township  
Passamaquoddy Tribe - Pleasant Point  
Penobscot Nation  
Shinnecock Indian Nation  
Wampanoag Tribe of Gay Head (Aquinnah)

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the Northeast to participate in the development of the management plan. While no federal or state recognized Native American governments formally responded to the invitations, informal conversations with Native American community members in 2023 indicated that there are strong cultural connections between Native American peoples and the Monument, and that they have an interest in involvement and collaboration.

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**State-recognized Native American governments invited to participate in management plan development:**

Eastern Pequot Tribal Nation  
Nipmuc Nation  
Schaghticoke Tribal Nation

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The Monument management team will continue to reach out and look for opportunities to support the engagement of federally recognized Native American governments and communities in development and implementation of the Monument's management plan. The Monument management team will also explore opportunities for other Native American communities to participate in Monument management and programs.

The draft management plan identifies goals, objectives, and activities focused on improving coordination and creating pathways for co-stewardship with Native American governments and communities over the next 15 years. These activities focus on understanding if and how Native American peoples want to be involved in Monument management; gauging their interest in exploring and sharing their cultural connections to the Monument; offering opportunities to visit and experience the Monument; and identifying what resources and support they would need to meaningfully participate in stewardship, research, education, and engagement programs, should they be interested.

*Coordination with other Federal agencies*

The Monument management team anticipates frequent coordination and collaboration with a multitude of other Federal agencies on Monument management issues as well as individual research, exploration, engagement, and education projects. In addition to the federal partners already mentioned, these agencies include, but are not limited to, the National Park Service, U.S. Geological Survey, Bureau of Ocean Energy Management, and National Aeronautics and Space Administration.

*Coordination with States*

While located in the U.S. Exclusive Economic Zone outside of State waters and jurisdiction, coordination with States in the Monument's region, which include Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, and New York, is important. Many recreational users of the Monument are leaving from and transiting through state waters to access the Monument. Recreational anglers land their catches in multiple states. State governments in the Northeast have great expertise and play primary roles in many marine management issues including, but not limited to, navigation; marine fisheries management; underwater archeology; endangered species management; spill response and planning; law enforcement; and climate change planning, monitoring, and response.

The Monument management team recognizes that states in the Northeast are currently dealing with significant marine and ocean management workloads within state waters. Thus, the Monument management team has included activities in the draft management plan that allow for

coordination with these States through existing forums in which these States already regularly participate, including but not limited to the Northeast Regional Ocean Council and Atlantic States Marine Fisheries Commission. The Monument management team also anticipates consulting and coordinating with state marine resource managers and other experts on individual Monument management issues, programs, and projects.

#### *International Coordination*

The Monument management team anticipates coordinating with other countries and international governmental organizations on specific migratory species management issues (including but not limited to management of black-capped petrel, Bermuda storm petrel and Atlantic salmon), research projects, and broader marine protected area management issues as they arise.

The Monument management team will build off existing international partnerships including but not limited to the Northwest Atlantic Fisheries Organization, the North Atlantic Salmon Conservation Organization, and Fisheries and Oceans Canada. Through NOAA there will continue to be engagement in the International Commission for the Conservation of Atlantic Tunas (ICCAT), which oversees the conservation and management of a variety of Atlantic marine species, including tunas, swordfish, marlin and sharks, and adopts measures to minimize bycatch of turtles and seabirds associated with these fisheries. This responsibility is shared among ICCAT's 52 members, including the United States.

#### *Public Involvement in Management*

Public and stakeholder involvement in the management of the Monument is key to achieving the vision and goals of the draft management plan, which are founded on the principles of community stewardship.

At the heart of the community stewardship approach is the desire to partner with and encourage community members to adopt and sustain ocean-friendly behaviors (Marshall et al., 2015), recognizing that the long-term health of people and nature are dependent on each other. Community stewardship does not take the place of agency decision-making, policies, rules, or regulations, but complements them by acknowledging and addressing their limitations.

Community stewardship depends on active public participation, established mechanisms for adaptive management, and the development of strong partnerships with those who actively use and care about the Monument. The draft management plan proposes to involve the public and stakeholders in management through at least two public community forums each year, with the goal of at least one forum being virtual and at least one forum being in-person. The locations of the in-person community forums will rotate throughout the region.

The Monument management team will also explore the possibility of using authorities granted by the recently reauthorized Coral Reef Conservation Act to form a coral stewardship working group that would include non-federal representatives. Another avenue the Monument management team may explore is working with a neutral, third-party facilitator to form, host, and lead an independent community working group that would consider relevant Monument management issues and topics. Should either of these working groups be formed, their meetings would be open to the public and might serve in place of the public community forums.

Additionally, the draft management plan identifies numerous activities that will meaningfully engage stakeholders in specific management and stewardship, education, and research activities, with the goal of improving conservation outcomes and fostering a sense of deep connection to and collective responsibility for the long-term health of the Monument.

#### Prohibited, Regulated, and Other Activities

Presidential Proclamation 9496, which established the Monument, identified a suite of prohibited and regulated activities in the Monument, as well as several activities that fall outside the prohibited or regulated categories.

##### *Prohibited Activities*

The following activities are **prohibited** in the Monument under Presidential Proclamation 9496:

- 
- 1. Exploring for, developing, or producing oil and gas or minerals, or undertaking any other energy exploration or development activities within the monument.*
  - 2. Using or attempting to use poisons, electrical charges, or explosives in the collection or harvest of a monument resource.*
  - 3. Introducing or otherwise releasing an introduced species from within or into the monument.*
  - 4. Removing, moving, taking, harvesting, possessing, injuring, disturbing, or damaging, or attempting to remove, move, take, harvest, possess, injure, disturb, or damage, any living or nonliving monument resource, except as provided under regulated activities.*
  - 5. Drilling into, anchoring, dredging, or otherwise altering the submerged lands; or constructing, placing, or abandoning any structure, material, or other matter on the submerged lands, except for scientific instruments and constructing or maintaining submarine cables.*
  - 6. Fishing commercially or possessing commercial fishing gear except when stowed and not available for immediate use during passage without interruption through the monument (with the exception of the red crab fishery and the American lobster fishery, which is allowed through September 15, 2023).*
- 

##### *Regulated Activities*

According to Presidential Proclamation 9496, the following activities may take place in the Monument in accordance with existing policies, laws, and regulations. In some cases, these activities may require permits and/or are subject to restrictions (see proposed permitting system).

- 
- 1. Research and scientific exploration designed to further understanding of monument resources and qualities or knowledge of the North Atlantic Ocean ecosystem and resources.*

*2. Activities that will further the educational value of the monument or will assist in the conservation and management of the monument.*

*3. Anchoring scientific instruments.*

*4. Recreational fishing.*

*5. Commercial fishing for red crab and American lobster until September 15, 2023 (after which it is a prohibited activity).*

*6. Other recreational activities that do not impact monument resources, such as sailing or bird and marine mammal watching.*

*7. Construction and maintenance of submarine cables.*

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#### *Emergencies, Law Enforcement Activities, and Military Uses*

The prohibitions required in the Monument shall not apply to activities and exercises of the U.S. Armed Forces, including those carried out by the USCG. The U.S. Armed Forces shall ensure, by the adoption of appropriate measures not impairing operations or operation capabilities, that its vessels and aircraft act in a manner consistent, so far as is practicable, with the Monument's establishing Presidential Proclamation 9496.

The Monument is not located in an area typically used by the Department of Defense for training or testing. The Monument does not overlap any Navy training and testing ranges, and the Navy does not currently plan any major training exercises in the area encompassed by Monument. The Navy anticipates its primary activity in the Monument will be transiting but may need to conduct a limited number of military readiness activities if required for national security purposes, consistent with the Atlantic Fleet Training and Testing Environmental Impact Statement/Overseas Environmental Impact Statement (<https://www.nepa.navy.mil/aftteis>). The Navy may also conduct research activities in a manner consistent so far as is practicable with the Monument's establishing Presidential Proclamation 9496. It is anticipated that the primary U.S. Air Force activity in the Monument will be overflights.

In the event of threatened or actual destruction of, loss of, or injury to a monument resource or quality resulting from an incident, including but not limited to spills, caused by a component of the Department of Defense or the USCG, the cognizant component shall promptly coordinate with the Service and NOAA for the purpose of taking appropriate action to respond to and mitigate any harm and, if possible, restore or replace the Monument resource or quality.

Nothing in the proclamation establishing the Monument or any regulation implementing it shall limit or otherwise affect the U.S. Armed Forces' discretion to use, maintain, improve, manage or control any property under the administrative control of a Military Department or



otherwise limit the availability of such property for military mission purposes, including, but not limited to, defensive areas and airspace reservations.

#### *International Navigation and Overflight*

The Monument shall be managed in accordance with international law, and NOAA and the Service shall coordinate with the Department of State to that end. The management plan and any implementing regulations shall not unlawfully restrict navigation and overflight freedoms and other internationally lawful uses of the sea related to these freedoms in the Monument. No restrictions shall apply to or be enforced against a person who is not a citizen, national, or resident alien of the U.S. (including foreign flag vessels) unless in accordance with international law. Also, in accordance with international law, no restrictions shall apply to foreign warships, naval auxiliaries, and other vessels owned or operated by a state and used, for the time being, only on government non-commercial service, in order to fully respect the sovereign immunity of such vessels under international law.

#### *Activities outside the scope of this plan and environmental assessment*

##### *Law enforcement and military activities*

Evaluating law enforcement activities and U.S. Armed Forces activities in the Monument is outside the scope of this draft management plan and draft environmental assessment. The U.S. Armed Forces and law enforcement agencies on regular intervals conduct consultations with the Service and NOAA under Section 7 of the Endangered Species Act, the Marine Mammal Protection Act, and the Essential Fish Habitat provisions of the Magnuson-Stevens Fishery Conservation and Management Act to consider the effects of their activities on protected species and habitats in the waters that the Monument now encompasses.

In the event that law enforcement and/or military actions in the Monument cause destruction of, loss of or injury to Monument resources, the Monument management team will work with the USCG and/or Navy on efforts to mitigate injuries and, if possible, restore or replace the injured Monument resources. These injuries and response efforts would be evaluated in supplemental analyses in accordance with NEPA.

##### *Shipping Vessel Traffic*

Regarding shipping vessel traffic in the Monument, Presidential Proclamation 9496 provides that the Monument shall not unlawfully restrict navigation, overflight, and other internationally lawful uses of the sea in the Monument. This draft management plan does not consider any regulation of the shipping vessel movement in the Monument; and the draft environmental assessment does not evaluate the effects of shipping vessel traffic on marine resources.

The Monument management team recognizes that shipping vessels can adversely affect marine mammals and pelagic seabirds due to collisions with ships and changes in behavior as a result of acoustic disturbance and lighting. However, at this time, the management team does not have enough information to assess the extent to which shipping vessel traffic may be causing impacts to Monument resources. Thus, the draft management plan identifies information-gathering activities related to shipping vessel traffic, in partnership with the USCG, and could in the future explore and evaluate voluntary partnerships and other lawful avenues through which to address adverse impacts, should they be found.

### *Submarine Cable Installation and Maintenance*

There are 15 known submarine cables (Fig. 18) that traverse the seafloor of the Seamounts Unit of the Monument. There are no submarine cables known to be in the Canyons Unit. While listed as a regulated activity in the establishing proclamation, regulation of and analyzing the effects of submarine cable installation and maintenance are outside the scope of this draft management plan and environmental assessment.

### *Enforcement Partnerships*

The Monument management team will rely heavily on partnerships with the USCG First District and NOAA Office of Law Enforcement to ensure compliance with and enforcement of Monument rules and regulations. The Service Refuge Law Enforcement office and the Service Office of Law Enforcement will provide investigative and case support, but do not currently have law enforcement personnel operating in the offshore marine environment in the North Atlantic.

In the first few years of management plan implementation, the Monument management team will focus on developing and deepening its relationship with the USCG First District, the NOAA Office of Law Enforcement, the Service Refuge Law Enforcement office, and the Service Office of Law Enforcement to identify additional resource needs related to law enforcement in the Monument.

### *Anticipated Rulemaking and Compatibility Determinations*

NOAA Fisheries is currently in the process of updating its regulations under the Magnuson-Stevens Fishery Conservation and Management Act to codify the prohibition on commercial fishing in the Monument. NOAA is in the process of developing a single proposed rule that would incorporate the Monument area and commercial fishing prohibition into the Magnuson-Stevens Fishery Conservation and Management Act regulations at 50 C.F.R. part 600.

Incorporating regulations into these sections will affect all Atlantic commercial fisheries, avoiding the need for each region or office to duplicate these regulations.

The Service is managing the Monument as a unit of the National Wildlife Refuge System and will develop compatibility determinations for allowed uses and undertake rulemaking for the Monument as deemed necessary in accordance with the National Wildlife Refuge System Administration Act, Refuge Recreation Act and final management plan and environmental assessment.

### *Budgeting and Prioritization*

The Monument management team will work together on an annual basis to budget for Monument activities following these principles:

- focus on activities that achieve multiple objectives;
- invite innovation; and
- support collaborative, interdisciplinary efforts.

Activities in the management plan that are marked with an asterisk (\*) are those activities that can reasonably be expected to occur given current budget and staffing levels. Should funding decline, asterisked activities may also have to be scaled back. All non-asterisked activities are expected to need additional staff or resources to be implemented beyond the preliminary planning stage.

NOAA and Service budgets fluctuate on a yearly basis and the agencies frequently do not receive their budgets until midway through the fiscal year. It is anticipated over the life of this management plan that there will be some years that allow for expansion of Monument programs and some years that require scaling back. Promoting and developing a wide array of partnerships will be crucial to achieving the work outlined in the draft management plan. In determining how to allocate funding on a yearly basis, the Monument will prioritize funding as follows:

1. **STAFF:** Maintain basic staffing levels to implement essential functions and programs.

The first funding priority is to ensure that basic staffing needs are met. Staff are needed to perform essential functions that include, but are not limited to, coordinating with Federal, State and Native American partners; promulgating regulations; reviewing and issuing permits and ensuring compliance with those permits; fulfilling the tribal trust responsibility; addressing impacts to Monument resources; hosting community forums and giving the public an opportunity to provide input on Monument management; meeting internal reporting and administrative requirements; producing outreach materials; and coordinating research and education projects in the Monument.

2. **FUND:** Fund on-the-ground research, education, and outreach projects.

Once basic staffing needs are met, the second highest priority for any given budget year will be to work with partners to fund, support, and implement on-the-ground scientific research, exploration, education, and engagement programs.

3. **LEAD:** Take a leading role in North Atlantic deep-sea ocean stewardship, education, and research.

Should budgets allow for the previous two priorities to be met, the third budgeting priority is to deepen and expand the Monument's leadership role in ocean conservation in the North Atlantic. Internal capacity would be expanded to allow staff the opportunity to implement the non-asterisked activities in the management plan that go beyond essential functions; to spearhead initiatives; to deepen partnerships; and to serve in leadership roles in regional ocean management and stewardship organizations.

The Monument currently is supported by one permanent, full-time Service employee and one half-time permanent NOAA Fisheries employee.

In fiscal year 2023, the Service received \$1,000,000 of congressionally appropriated funding for the Monument, \$700,000 of which was directed towards Monument research and education.

Future funding for the Monument is uncertain and updates on funding will be provided to the public through an annual report proposed in the draft management plan.

This management plan does not constitute a commitment of funds, or a commitment to request funds, by Federal agencies. All funding for current and possible future Monument activities is subject to the budgeting and appropriations processes of the Federal Government.

## Management and Stewardship Program

Establishing an effective management and stewardship program for the Monument is essential to protecting its marine ecosystems, cultural and historical resources, and the benefits these resources provide to this and future generations. The management and stewardship program will focus on establishing and deepening partnerships, improving understanding of uses in the Monument to inform management decisions, and promoting community stewardship.

The timeline for meeting each objective is 15 years (the life of the management plan) unless otherwise noted. Coordination and/or collaboration between NOAA Fisheries and the Service is presumed for all activities. The depth and breadth to which each objective can be achieved will depend on funding availability. Activities marked with an asterisk (\*) are those activities that can reasonably be expected to occur within the next 1 to 15 years given current (fiscal year 2023) budget and staff support levels.

In most cases asterisked activities are associated with target timelines (for example, within two years, within five years). The start-date for those timelines is the publication of the final management plan. All other activities are expected to need additional staff or resources to be implemented in a meaningful way (beyond preliminary planning). As staff and funding to support these activities become available, timeline goals will be determined and established.

### *GOAL 1: Conserve and protect the marine ecosystem within the Monument.*

#### *Objective 1.1: Develop a regulatory framework for uses and activities in the Monument that is consistent with establishing Presidential Proclamation 9496 and operate an effective permitting program.*

- NOAA Fisheries will promulgate regulations using its authorities under the Magnuson-Stevens Fishery Conservation Management Act to codify the prohibition on commercial fishing in the Monument as established in Presidential Proclamation 9496. \*
- Within three years the Service will publish any draft compatibility determinations deemed necessary for uses in the Monument. \*
- Within five years, establish a process through which the Service and NOAA Fisheries will collaborate and share information on issuing permits for activities and uses within the Monument. \*
- The Service and NOAA Fisheries will process and evaluate permit applications received in a timely manner. \*
- On an annual basis, NOAA Fisheries and the Service will analyze and report to each other on information gathered from the permits each agency issued. \*
- Publish a user-friendly, online permitting guide for the Monument.
- Improve awareness about the Monument's location and management measures by ensuring that its boundary is represented on nautical charts, maps, and ocean-related apps such as WhaleAlert.



***Objective 1.2: Develop an effective enforcement program in the Monument that encourages community stewardship.***

- Twice a year for first three years of management plan implementation, host meetings with NOAA's Office of Law Enforcement, the Service's Office of Law Enforcement and Refuge Law Enforcement Office, and the USCG to discuss and prioritize law enforcement concerns; share information; and evaluate law enforcement resource and staffing needs for the Monument. Host additional meetings as needed. \*
- Explore opportunities to use satellite data to virtually track use of the Monument, ensure compliance with prohibitions, and assess whether there are issues with unauthorized, unregulated, and illegal fishing in the Monument.

***Objective 1.3: Assess potential impacts of marine debris and abandoned, lost, or otherwise discarded fishing gear (ALDFG) on Monument resources.***

- Develop a voluntary tracking/reporting system that allows researchers, recreational fishermen, wildlife watchers, and boaters to report observations of ALDFG and other types of marine debris, and/or interactions of such gear and debris with Monument resources.
- Should significant marine debris or ALDFG issues be found, evaluate their impacts, and explore management options for mitigating, replacing, or restoring injured Monument resources.

***Objective 1.4: Complete an assessment of all major uses of the Monument.***

*Vessel Traffic*

- Within five years, partner with the USCG Navigation Center and USCG navigation specialists to better understand shipping activity in the Monument. \*
- Within 15 years, partner with the USCG to conduct outreach to the shipping industry to increase awareness about the Monument; how to avoid and reduce the likelihood of vessel strikes of marine mammals and seabirds; how to respond when a vessel strike occurs; and how to reduce the impact of light and sound on seabirds, marine mammals, and other marine species.

*Submarine Cable Maintenance*

- Improve understanding of submarine (undersea) cable maintenance and installation activities by partnering with the Department of State to conduct outreach to the undersea cable industry. \*

*Recreational Uses*

- Develop an inventory of for-hire fishing, wildlife watching (whales, seabirds and other species), and recreational sailing/boating organizations that utilize the Monument.

- Contact and meet with those companies and organizations identified to learn more about how often they visit; what ports they use; what species they see and/or target; changes in observed species from past to present; their general observations and experiences in the Monument; and their potential interest in becoming Monument volunteer stewards and/or engaging in community science projects.
- Develop and conduct a survey of for-hire vessels in the Monument region to better understand recreational fishing effort in the Monument.

***Objective 1.5: Be prepared in the event of a spill or other incident in the Monument.***

- Within two years, incorporate the Monument as an area of special concern in the USCG Region 1 Southeast Massachusetts/Rhode Island Area Contingency Plan. \*
- Develop specific recommendations for spill response in the Monument and provide them to the Regional Response Team Region 1 (RRT-1) Committee for inclusion in the Regional Contingency Plan.
- Ensure at least one Monument staff member participates in a USCG preparedness for response exercise program (PREP) exercise each year and meeting of the USCG Region 1 Southeast Massachusetts/Rhode Island Area Committee.

***Objective 1.6: Identify, nurture, and honor Native American cultural connections to the Monument.***

- Within five years, reach out to Native American governments and communities in the Monument region to discuss their interest in collaboration. \*
- Dependent on community interest, work with Native American governments and communities to include cultural knowledge and practices (consistent with long-term conservation and protection, and recognizing Indigenous ownership of their knowledge) into management plan programs and activities.
- If there is interest, explore the possibility of working with Native American governments and communities to rename the Monument and Monument features with traditional cultural names.

***Objective 1.7: Increase awareness of and avoid impacts to underwater cultural and historical archeological resources in the Monument.***

- Provide researchers working in the Monument with instructions for what to do if they encounter a potential historic or cultural resource.
- Provide researchers working in the Monument with best practices for avoiding impacts to cultural and historic resources.
- Expand relationships with underwater cultural and maritime archaeological researchers and identify ways to involve them in Monument exploration.

***Objective 1.8: Develop a community stewardship program for the Monument.***

- Provide information about [the Service's Friends Partnerships](#) to individuals or groups who express interest in forming a Friends group for the Monument.\*
- Distribute to relevant organizations outreach materials on 1) best practices for avoiding and minimizing impacts in the Monument to marine mammals, seabirds, sea turtles, listed species (giant manta ray and oceanic whitetip shark) and other marine life, and 2) how to respond to collisions, strikes, entanglements or hooking.
- Develop a volunteer "Monumental Stewards" program to partner with captains and crews of vessels (recreational fishing, wildlife watching, diving, and sailing) that routinely visit or transit the Monument to assist in the collection of observational and scientific data.
- Establish a volunteer stewardship recognition program.

***Objective 1.9: Adaptively manage the Monument.***

- One Monument management team meeting each year will focus on consideration of climate change effects and adaptive management needs, which could include modifying the management plan based on new information, and/or developing more detailed supplemental step-down plans for particular Monument programs. \*
- Implement adaptive management toolkits to assess Monument resource management needs.
- Investigate research being done by NOAA's National Centers for Coastal and Ocean Science Hollings Marine Laboratory to propagate and restore deep-sea coral species in the Gulf of Mexico to determine the potential applicability of these restoration techniques in the Monument and North Atlantic region.

***Goal 2: Establish staffing capacity to support essential management functions; and develop partnerships to achieve effective joint management and community stewardship.***

***Objective 2.1: Deepen the NOAA and Service joint-management relationship.***

- Host joint management team meetings on a fixed, frequent schedule, opportunistically pursuing in-person and team-building activities when resources and staffing allow. \*
- At least once per year, create an opportunity for relationship-building between diverse groups of Service and NOAA subject matter experts by leveraging existing workshops, conferences, and meetings. \*
- Within one year establish quarterly coordination meetings between the NOAA Fisheries Greater Atlantic Regional Administrator and Service Northeast Regional Director to discuss the Monument. \*
- Develop a joint-agency Monument fellowship or internship that provides participants with experience in both agencies and supports recruitment and retention of diversity into the marine conservation field.
- Provide NOAA and Service Monument staff with professional growth opportunities through cross-agency work details.

***Objective 2.2: Staff Monument management & stewardship, research & exploration, and engagement & education programs.***

- Within two years, develop a basic joint Service-NOAA staffing plan to address development of the three key program areas (management and stewardship, research and exploration and engagement and education). \*
- Develop organizational charts based on the staffing plan and hire staff accordingly.
- Hire a third-party consultant to conduct an independent financial gap analysis to independently assess the staff and funding needed to manage the Monument.

***Objective 2.3: Engage Federal agencies, Native American governments, and States in management of the Monument and its resources.***

- In accordance with Executive Order 13175 and in recognition of our government-to-government relationship, the Monument management team will consult with federally recognized Native American governments early and often regarding co-stewardship of the Monument and any Monument management decisions that could impact them. \*
- At least twice per year and more frequently as needed, meet and coordinate with the USCG, Navy, and Department of State to provide updates and discuss coordination needs and topics of interest. \*
- Provide relevant updates as needed to regional ocean management and governance groups, such as the Northeast Regional Ocean Council. \*
- Conduct outreach to state-recognized and non-recognized Native American governments to understand better their interests in the Monument and its management.
- Update federally recognized Native American governments (and other Native American communities and governments as feasible), the New England Fishery Management Council, Mid-Atlantic Fishery Management Council and Atlantic States Marine Fisheries Commission on Monument activities.
- Explore the potential utility of developing a coral reef action plan to guide stewardship of coral ecosystems in the Monument in accordance with the Coral Reef Conservation Act of 2023.

***Objective 2.4: Provide opportunities for the public to provide input on Monument management and engage with the Monument management team.***

- On an annual basis, publish an accomplishments report that shares budget information; prioritization of activities based on budget and staffing capacity; a summary of permits issued; and key accomplishments. \*
- On an annual basis, host two community forums (one virtual and one in person), which are open to the public, and which allow the public to learn about and comment on Monument management issues. \*
- Explore the possibility of forming a community-based working group to support deep-sea coral stewardship in the Monument under the authorities of and in accordance with the

guidelines for coral partnerships in the recently reauthorized Coral Reef Conservation Act of 2023.

- Explore the possibility of funding a third-party, neutral contractor to establish, invite participation in, and lead a community working group for the Monument.
- Present Monument projects and management activities at Advisory Council meetings for Stellwagen Bank National Marine Sanctuary and the proposed Hudson Canyon National Marine Sanctuary.

***Objective 2.5: Coordinate and partner with other coastal and marine protected areas to share resources and implement mutual or complementary management goals, objectives, and activities.***

- At least once per year, and more frequently as needed, meet and coordinate with marine protected area managers in the Northeast, including Stellwagen Bank National Marine Sanctuary, National Wildlife Refuges, and the proposed Hudson Canyon National Marine Sanctuary. \*
- Provide technical assistance and share resources and information with staff from other marine national monuments, national marine sanctuaries, and State and local marine protected areas.
- Contact National Wildlife Refuges, National Estuarine Research Reserves, National Parks, Service Coastal Program Offices, state parks, and other coastal and marine protected areas in the Northeast to identify any mutual or complementary management goals, objectives and activities that could be addressed through partnerships.
- Should the proposed Hudson Canyon National Marine Sanctuary be formally designated as a national marine sanctuary, explore a partnership to share resources (staff and funding) to support joint Atlantic canyon research, education, and stewardship programs.

***Objective 2.6: Support international marine protected area management efforts in the Atlantic Ocean.***

- As needed, serve as a consultative resource for marine protected area managers in the Atlantic High Seas. \*
- Explore potential international conservation designations for the Monument (such as international dark sky designation, International Union for Conservation of Nature Important Shark and Ray area designation).
- Coordinate and meet on an annual basis with marine protected area managers in the Canadian Atlantic Provinces to share updates and identify opportunities for collaboration in the following year.
- Contribute to the development of training programs for marine protected area managers.
- Attend and present at meetings of the International Marine Protected Areas Congress.
- Coordinate with the Department of State on any proposed marine protected areas in international waters in the North Atlantic.



### *Potential Partners*

U.S. Coast Guard, U.S. Navy, U.S. Department of State, Office of National Marine Sanctuaries, National Park Service, National Aeronautics and Space Administration, Bureau of Ocean Energy Management, Mi'kmaq Nation(formerly Aroostook Band of Micmacs), Houlton Band of Maliseet Indians, Mashantucket Pequot Tribal Nation, Mashpee Wampanoag Tribe, Mohegan Tribe of Indians of Connecticut, Narragansett Indian Tribe, Passamaquoddy Tribe - Indian Township, Passamaquoddy Tribe - Pleasant Point, Penobscot Nation, Shinnecock Indian Nation, Wampanoag Tribe of Gay Head (Aquinnah), State of Maine, State of New Hampshire, Commonwealth of Massachusetts, State of Rhode Island, State of Connecticut, State of New York, Northeast Ocean Planning initiative, Northeast Regional Ocean Council, New England Fishery Management Council, Mid-Atlantic Fishery Management Council, Atlantic States Marine Fisheries Commission, Stellwagen Bank National Marine Sanctuary, proposed Hudson Canyon National Marine Sanctuary, National Marine Protected Areas Center, North Atlantic Ports Association, American Sportfishing Association, North Atlantic Whale Watching Association, North American Submarine Cable Association, Northwest Atlantic Fisheries Organization, the North Atlantic Salmon Conservation Organization, and relationships with Fisheries and Oceans Canada

## Exploration and Research Program

There are many gaps in information about the Monument's ecosystems, and more exploration and study are critical to ensuring effective management and stewardship. However, conducting research in and exploring the Monument is expensive, labor intensive, and time-consuming to plan and implement, all of which is complicated by the Monument's remote location, extreme oceanic depths, and weather conditions.

The Monument's research and exploration program for the next 15 years will focus on building partnerships and leveraging funding to conduct scientific research and exploration that answers fundamental questions about the Monument and contributes to the understanding and long-term conservation of deep-sea coral ecosystems. What organisms live in the Monument? What habitats are organisms using and how are they using them? How are the ecosystem processes in the deep-sea connected to the ecosystem processes at the surface? Why is biodiversity so high in the Monument? How is climate change affecting species and ecosystem processes in the Monument?

The timeline for meeting each objective is 15 years (the life of the management plan) unless otherwise noted. Coordination and/or collaboration between NOAA and the Service is presumed for all activities. The depth and breadth to which each objective can be achieved will depend on funding availability. Activities marked with an asterisk (\*) are those activities that can reasonably be expected to occur within the next 1 to 15 years given current (fiscal year 2023) budget and staff support levels.

In most cases asterisked activities are associated with target timelines (for example, within two years, within five years). The start-date for those timelines is the publication of the final management plan. All other activities are expected to need additional staff or resources to be implemented in a meaningful way (beyond preliminary planning). As funding becomes available to support these activities, timeline goals will be established and communicated with the public.

***Goal 3: Conduct innovative, collaborative, and interdisciplinary research and exploration to improve understanding of biological, physical, cultural, and historical resources in the Monument.***

***Objective 3.1: Encourage and provide coordinated support for interdisciplinary research and exploration of the Monument.***

- Actively participate in NOAA's Northeast Deep Sea Coral Research Initiative. \*
- Host three Northwest Atlantic Canyons and Seamounts research symposia (aiming for one every five years) that bring researchers together to share ideas and research findings (and their applicability to Monument management). \*
- On an annual basis provide coordination support for NOAA and Service research and exploration projects in the Monument, assisting as needed with logistics, planning, and required permitting and consultations. \*

- Explore public-private partnerships and the development of competitive grant programs to fund research and exploration in the Monument with a priority on interdisciplinary research.
- Identify strategies to address the limited availability of, or lack of opportunities for using, deepwater federal research vessels off the Northeast coast.
- Attend and present at research meetings, forums, and conferences in order to raise awareness about the Monument and attract interest from the research community.
- Host informal and virtual brown bag research talks that allow researchers to connect.
- Opportunistically place researchers aboard vessels transiting or spending time in the Monument in order to collect scientific data.

***Objective 3.2: Study the human history of the Monument to understand the cultural connections between humans and the Monument landscape on a geologic time scale, from ancient to modern times.***

- Within 10 years, contact Native American communities to gauge their interest in research into and documentation of their cultural connections to the Monument. \*
- Contact non-Indigenous maritime and fishing communities to gauge their interest in research into and documentation of their cultural connections to the Monument.
- Support – by funding and/or sharing data – archaeological analysis of bathymetric (multibeam and sidescan sonar) data collected as part of ecological research and mapping in the Monument to identify potential shipwrecks and cultural resources.
- Depending upon interest, partner with Native American and non-Indigenous maritime and fishing communities to develop and implement cultural and historical research projects.

***Objective 3.3: Identify gaps in knowledge regarding species, habitats, ecosystem processes, as well as physical, chemical, geologic, and oceanographic processes in the Monument.***

- Within three years, develop a species list for the Monument, and make it available on-line (updating it on an annual basis). \*
- Assemble a diverse, interdisciplinary working group of experts (federal and non-federal) to develop a research needs assessment for the species, habitats and ecosystems in the Monument, including deep-sea coral and sponge habitats, species that may be important to commercial fisheries outside of the Monument, highly pelagic seabirds, and marine mammals. The group will also assess research needs related to habitat mapping; physical/chemical/geologic oceanographic processes, and the effects of climate change (ocean warming and acidification).
- Develop a long-term climate change monitoring plan for the Monument that identifies key indicators to monitor over the coming decades.

***Objective 3.4: Conduct and support research that addresses priorities identified in the research needs assessment.***

- Aim to fully or partially fund at least one research project in the Monument each year, prioritizing projects that will fill information gaps identified in the research needs assessment. \*
- Within 15 years and prior to the next management plan review, develop and publish a condition report that summarizes the current status and health of resources in the Monument in order to inform the next management plan review process.\*
- Within five years establish standard practices and protocols for research of highly pelagic seabirds in the Monument that could also be applied outside of the Monument.\*
- Identify and utilize existing community data-sharing platforms, such as eBird or iNaturalist, to better understand community science data in the Monument.
- Establish the Monument as a sentinel site for climate change monitoring in the North Atlantic by actively advocating for the inclusion of the Monument in long-term offshore and deep-sea climate change research.

### *Objective 3.5: Share Monument research results broadly.*

- Include highlights of research findings in each Monument annual report.\*
- Publish presentations from Monument research symposia on-line.\*
- Require researchers whose work is supported by NOAA and/or Service funding to include an outreach component in their research plan.
- Invite researchers to share the results of their work with the public at Monument community forums.
- Connect researchers with local community groups interested in guest speakers.
- Incorporate into the Monument's media and communications plan (see Engagement & Education section) a strategy for sharing information about research findings.

### *Potential Partners*

Mi'kmaq Nation, formerly Aroostook Band of Micmacs, Houlton Band of Maliseet Indians, Mashantucket Pequot Tribal Nation, Mashpee Wampanoag Tribe, Mohegan Tribe of Indians of Connecticut, Narragansett Indian Tribe, Passamaquoddy Tribe - Indian Township, Passamaquoddy Tribe - Pleasant Point, Penobscot Nation, Shinnecock Indian Nation, Wampanoag Tribe of Gay Head (Aquinnah), Bureau of Ocean Energy Management, National Aeronautics and Space Administration, National Park Service, U.S. Geological Survey, Department of State, Office of National Marine Sanctuaries, Stellwagen Bank National Marine Sanctuary, State of Maine, State of New Hampshire, Commonwealth of Massachusetts, State of Rhode Island, State of Connecticut, State of New York, Northeast Ocean Planning initiative, Northeast Regional Ocean Council, New England Fishery Management Council, Mid-Atlantic Fishery Management Council, Atlantic States Marine Fisheries Commission, University of Massachusetts Dartmouth, University of Connecticut, University of New Hampshire, University of Maine, University of Rhode Island, National Fish and Wildlife Foundation, Woods Hole Oceanographic Institution, University of San Diego, University of Connecticut, Gulf of Maine

Research Institute, Smithsonian Institution, Commercial Fisheries Research Foundation, Mystic Aquarium, New England Aquarium, Providence Parks Urban Wildlife Refuge Program, Coastal Research & Education Society of Long Island, Inc., Brookline Bird Club, Atlantic Marine Bird Cooperative, Ocean Data Network, maritime museums and historical societies.

## Engagement and Education Program

Effective engagement and education programs are essential to achieving the Monument's vision and goals and to ensuring long-term stewardship and conservation of deep-sea ecosystems. Meaningful environmental engagement and education opportunities can enrich and change peoples' lives: inspiring them; altering their perspectives; invoking feelings of awe and wonder that increase happiness and satisfaction; and motivating them to change their behavior for the benefit of the environment. The Monument has the potential to create these kinds of life-changing experiences for people.

The timeline for meeting each objective is 15 years (the life of the management plan) unless otherwise noted. Coordination and/or collaboration between NOAA and the Service is presumed for all activities. The depth and breadth to which each objective can be achieved will depend on funding availability. Activities marked with an asterisk (\*) are those activities that can reasonably be expected to occur within the next 1 to 15 years given current (fiscal year 2023) budget and staff support levels.

In most cases asterisked activities are associated with target timelines (for example, within two years, within five years). The start-date for those timelines is the publication of the final management plan. All other activities are expected to need additional staff or resources to be implemented in a meaningful way (beyond preliminary planning). As funding to support these activities is available, timeline goals will be determined and communicated with the public.

### *Goal 4: Increase the public's awareness of and sense of connection to the Monument and the deep sea.*

#### *Objective 4.1: Increase the funding available for Monument-related engagement and education efforts.*

- Within 15 years, establish public-private partnerships and develop competitive grant programs to fund innovative engagement and education projects that connect people to the Monument through virtual and in-person experiences.

#### *Objective 4.2: Understand and characterize the Monument community; and within that community, increase general awareness of the Monument and its resources.*

- Within three years, develop a strategic media and communications plan for the Monument.\*
- Within three years ensure that Monument outreach materials are made available in relevant languages other than English.\*
- Within five years develop and expand existing Monument stakeholder contact lists and databases.\*
- Develop estimates of in-person visitation to the Monument by contacting user groups to ask about the frequency and timing of visits.



- Conduct a demographic and sociological analysis to better define the Monument community and identify the most effective ways to engage its members and make the Monument more accessible.
- Develop a digital inventory of photos and videos for the Monument to support digital storytelling.
- Convene a working group with zoo and aquarium representatives and agency outreach experts to develop a plan for developing virtual, immersive exhibits and experiences at zoos and aquariums nationwide that relate to North Atlantic deep-sea ecosystems.

***Objective 4.3: Support development of education programs that connect students of all ages and backgrounds to the Monument and its resources.***

- On an annual basis, work collaboratively to support the development of educational curricula and programming on North Atlantic deep-sea canyon and seamount ecosystems in order to connect the Monument's community to its dynamic ecosystems and help people understand the role they play in these ecosystems.\*
- Ensure that curricula and programming related to the Monument is shared with the Service's Urban Wildlife Conservation Partnerships in the Monument region (current Urban Wildlife Conservation Partnership cities are: Yonkers, New York; New Haven, Connecticut; Providence, Rhode Island; and Lowell, Massachusetts).\*
- Within five years, develop or find existing contact lists or mechanisms for contacting secondary schools, particularly those who serve communities with environmental justice concerns in the Northeast, in order to distribute curricula and other classroom-relevant content on North Atlantic deep-sea canyon and seamount ecosystems.\*
- Work collaboratively to support the development of educational curricula and programming on the cultural importance of the Monument and its meaning to Native American peoples and historic fishing communities.
- Enhance existing opportunities for student and public participation in live deep-sea dives, such as developing simple deep-sea species identification guides that allow live dive viewers to participate in organism identification.
- Develop and market a proposal for a mobile (on water or land) classroom and visitor center for the Monument that incorporates hands-on STEM activities and virtual reality deep-sea experiences.

***Objective 4.4: Encourage community stewardship of the Monument through engagement and education programs geared toward in-person visitors.***

- Identify at least three opportunities to bring members of Native American governments and communities to visit the Monument on two-day pelagic seabird watching trips.
- Develop outreach materials on best practices for on-site recreational activities in the Monument, including handouts, videos, and social media posts.
- Where there is interest, connect recreational in-person visitors to the research community and explore opportunities for collaboration and community science.

- Where there is interest, partner with recreational users of the Monument to share audiovisual and/or written stories about their trips to the Monument with the public.
- Actively recruit participants for the volunteer “Monumental stewards” community stewardship program through personal calls and emails.
- Participate in International Coastal Cleanup events in the Northeast region and provide information to beach clean-up volunteers about the Monument.

*Objective 4.5: Inspire the next generation of deep-sea explorers, marine scientists, and marine protected area managers.*

- Host at least five interns through internship programs that focus on recruiting from communities with environmental justice concerns.
- Develop at least two relationships with existing marine engineering and robotics training and educational programs to incorporate the Monument into their curricula.
- Develop at least two opportunities for at-sea learning experiences in the Monument for teachers and/or students (over 18), with a priority on students and teachers from communities with environmental justice concerns in the Northeast.
- Develop at least one virtual-reality experience that allows individuals to take immersive, virtual trips to the Monument.

*Potential Partners*

U.S. Department of State, U.S. Geological Survey, National Park Service, National Aeronautics and Space Administration, Mi'kmaq Nation, formerly Aroostook Band of Micmacs, Houlton Band of Maliseet Indians, Mashantucket Pequot Tribal Nation, Mashpee Wampanoag Tribe, Mohegan Tribe of Indians of Connecticut, Narragansett Indian Tribe, Passamaquoddy Tribe - Indian Township, Passamaquoddy Tribe - Pleasant Point, Penobscot Nation, Shinnecock Indian Nation, Wampanoag Tribe of Gay Head (Aquinnah), State of Maine, State of New Hampshire, Commonwealth of Massachusetts, State of Rhode Island, State of Connecticut, State of New York, Northeast Ocean Planning initiative, Northeast Regional Ocean Council, New England Fishery Management Council, Mid-Atlantic Fishery Management Council, Atlantic States Marine Fisheries Commission, Stellwagen Bank National Marine Sanctuary, proposed Hudson Canyon National Marine Sanctuary, North American Association for Environmental Education, Association of Zoos and Aquariums, University of Massachusetts Dartmouth, University of Connecticut, University of New Hampshire, Woods Hole Oceanographic Institute, Mystic Aquarium, New England Aquarium, Providence Urban Wildlife Conservation Partnership

## Monitoring Progress and Evaluating Success

The Monument will publish an annual report each calendar year that provides an overview of the last fiscal year budget; how funding was spent; meaningful accomplishments; and a report-out on a select number of metrics to **monitor progress** in implementing the activities in the management plan and **evaluate success** achieving each management plan goal and objective with a focus on progress toward outcomes.

***GOAL: Conserve and protect the marine ecosystem within the Monument.***

***Metrics reported annually:***

- Number of public participants in community forums
- Overview of permits issued for each category of use
- Miles of transect lines surveyed in the Monument (and for which species and/or habitats)

***GOAL: Establish staffing capacity to support essential management functions; and develop partnerships to allow for effective joint management and community stewardship.***

***Metrics reported annually:***

- List of Monument staff and their roles, including interns and work detailees
- List of governments, agencies, and organizations with whom the Monument coordinated
- Number of staff from other governments, agencies and organizations who helped implement management plan activities
- Number of volunteer stewards and/or volunteer steward hours

***GOAL: Conduct innovative, collaborative, and interdisciplinary research and exploration to improve understanding of biological, physical, cultural, and historical resources in the Monument.***

***Metrics reported annually:***

- Number of research studies that occurred in the Monument and/or number of research days in the Monument
- Dollar amount invested in on-the-ground research in the Monument
- Number of reports and publications contributing to the understanding of Monument resources
- Number of disciplines represented in Monument research trips
- Number of attendees at research “brown bag” talks and research symposia

***GOAL: Increase the public's awareness of and sense of connection to the Monument and the deep sea.***

***Metrics reported annually:***

- Dollar amount invested in on-the-ground Monument engagement and education programs
- Estimated number of wildlife watching trips in the Monument
- Estimated number of recreational fishing trips in the Monument
- Number of outreach events in which the Monument actively participated
- Number of students engaged with the Monument through internships or student experiences
- Number of teachers engaged with the Monument through teacher training or implementation of Monument-related educational curricula

As resources and staffing within the Monument and its partners grow, these metrics may be modified to reflect expanding program capacity. Changes in metrics will be shared with the public in the proposed annual report.

### Proposed Permitting System

Presidential Proclamation 9496 identifies a suite of regulated activities that may be permitted in the Monument in accordance with international law. The Service and NOAA Fisheries considered these uses within the context of their legal authorities and developed the following proposal for permitting activities and uses within the Monument.

The proposed permitting program is a draft and decisions about how activities in the Monument will be permitted will not be finalized by the Monument management team until the final management plan has been published. It is the intention of the Monument management team to develop a standalone, user-friendly permitting guide for the Monument after publishing the final management plan.

This proposed permitting program does not speak to permits or authorizations that could be required from other agencies for projects in the Monument. Anyone conducting activities in the Monument must be in compliance with all relevant laws and regulations and have all necessary permits and authorizations in hand before activities can start.

The Monument management team's approach to permitting activities and uses in the Monument is to utilize NOAA Fisheries' existing permitting system for recreational fishing, educational trips, research, and photography and filming as a foundation. NOAA Fisheries has detailed and comprehensive websites explaining its permitting processes and ocean user groups are familiar with these permitting processes. Service special use permits are proposed to be required for some activities for which NOAA does not currently have existing permitting structures in place.

The aim is to create a permitting system that is not duplicative or administratively burdensome for the public; allows for recreational opportunities in the Monument, such as fishing, wildlife watching, diving, and boating; provides appropriate oversight of activities in the Monument; and ensures that Monument resources are protected in perpetuity.

The Service and NOAA will consult with each other on and share information about permits that have been received and are being processed and will update the public on the permits that are issued each year in the Monument through an annual report.

The Monument management team cannot anticipate every activity that could be proposed in the Monument. This permitting proposal addresses the range of common activities that Monument staff foreseeably anticipate will occur or are most likely to occur in the Monument. Should emerging technologies or other factors lead to the proposal of unanticipated activities in the Monument, the management team will evaluate the compatibility of those activities with the Monument's establishing purpose, rules, and regulations.

### *Proposed Requirements Common to all Uses and Activities*

NOAA Fisheries and the Service will not require additional permits or authorizations from each other for scientific research and management activities that either agency undertakes within the Monument (except that both agencies agree to adhere to agency requirements that pre-date Monument creation, Appendix C). Thus, activities for which NOAA or the Service is a partner

would not be subject to any of the newly proposed Service special use permit requirements. Specifically, regarding scientific research, Presidential Proclamation 9496 states that, “the prohibitions required by the proclamation shall not restrict scientific exploration or research activities by or for the Secretaries, and nothing in this proclamation shall be construed to require a permit or other authorization from the Secretary for their respective scientific activities.”

Activities taking place in the Monument must adhere to all relevant laws and regulations, including but not limited to USCG Navigation Rules, the Marine Mammal Protection Act, Endangered Species Act, Migratory Bird Treaty Act, and Clean Water Act. The Monument management team asks that all visitors to the Monument follow [NOAA Fisheries’ marine life viewing guidelines](#).

Please note that commercial fishing is not permitted in the Monument as of September 15, 2023, and any recreational fishing, educational trips, research, or photography and filming activities that involve commercial fishing are prohibited. Commercial fishing equipment on vessels must be stowed and not available for immediate use<sup>2</sup> during passage without interruption through the Monument.

Seafloor disturbance in the Monument is prohibited with exceptions for anchoring scientific instrumentation to the seafloor and submarine cable maintenance and installation (see the research section below for more information). Regular anchors that lodge in the seafloor are prohibited in the Monument. Use of sea anchors (typically an object dragged behind the vessel in the water column to stabilize drift) is allowed so long as they do not anchor the vessel to the seafloor or alter submerged lands.

The Monument management team asks those who visit the Monument on a regular basis to consider becoming volunteer stewards. Volunteer stewards will support Monument management and research activities by collecting observational data and other types of scientific information in the Monument. If interested, please contact the Monument’s Service Superintendent at [NCSMNM@fws.gov](mailto:NCSMNM@fws.gov).

#### *Recreational Fishing*

NOAA Fisheries will permit and regulate recreational fisheries in the Monument consistent with its existing recreational fishing permitting program and the prohibitions listed in Presidential Proclamation 9496. NOAA Fisheries and the Service do not propose to require any permits beyond those currently required by NOAA Fisheries in order to recreationally fish in the Monument.

NOAA Fisheries implements a comprehensive permitting program for recreational fisheries in the Greater Atlantic Region. For the most up to date information on saltwater recreational fishing rules and regulations, please visit [NOAA Fisheries’ recreational saltwater fishing website](#).

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<sup>2</sup> *Not available for immediate use* means that the gear is not being used for fishing and is stowed in conformance with one of the methods defined at 50 CFR § 648.2.



Anglers aged 16 or older need a permit to fish in federal waters. Anglers who obtain a saltwater fishing license and/or registration from the State where they depart for the Monument will automatically be registered in the National Saltwater Angler Registry. If fishing in the Monument without a state fishing license, anglers may need to register directly with the National Saltwater Angler Registry. Visit NOAA Fisheries' [National Saltwater Angler Registry website](#) to learn more about these requirements.

NOAA Fisheries' permitting program may require those fishing recreationally, either for-hire charter/headboats or private vessels, to have recreational fishing permits. These permits come with a number of follow-on rules and regulations that pertain to size/catch limitations, seasonal/annual closures, as well as reporting obligations. The Monument management team's current understanding is that recreational fishing effort in the Monument is predominantly for highly migratory species, such as tuna and swordfish, and consists of both for-hire and private vessels.

Recreational and for-hire fishing for tunas, sharks, swordfish, and billfish must be done from a vessel that has a federal [Highly Migratory Species](#) permit. For a person aboard a vessel that is operating as a charter vessel or headboat to fish for or possess Atlantic dolphin or wahoo, in or from the Atlantic Exclusive Economic Zone, a valid charter vessel/headboat permit for Atlantic dolphin and wahoo must have been issued by NOAA Fisheries' Southeast Regional Fisheries Office to the vessel and must be on board. Owners and operators of for-hire vessels, as well as recreational tilefish vessels, that fish in federal waters must get [permits from NOAA Fisheries' Greater Atlantic Regional Fisheries Office](#). In some states, owners and operators of charter boats, head boats, and guide boats must register their vessels with NOAA.

Recreational anglers need to check NOAA Fisheries' [regulations](#) for each species before going fishing, as the size and number that can be kept differs by species and time of year. Anglers must adhere to all relevant laws and regulations in the Monument, including the Marine Mammal Protection Act and the Endangered Species Act.

The Monument management team asks all anglers in the Monument to please fish responsibly and follow [recreational fishing best practices](#).

### *Research*

NOAA Fisheries currently issues a variety of permits for research on its trust resources (including sea turtles, sturgeon, and marine mammals) under the Endangered Species Act and Marine Mammal Protection Act. These permitting requirements would not be modified within the Monument boundaries. For more information on NOAA Fisheries' permitting requirements, please visit NOAA Fisheries' websites on [Endangered Species Act scientific research and enhancement permits](#) and [marine mammal scientific research and enhancement permits](#).

The Service also issues a variety of permits for research on its trust resources under the National Wildlife Refuge System Administration Act, the Refuge Recreation Act, the Endangered Species Act and Migratory Bird Treaty Act. These permitting requirements would not be modified within the Monument boundaries. For more information on these permitting requirements, please visit

the Service's websites on [Special Use Permitting](#), [Endangered Species Act permits for scientific purposes](#) and [migratory bird permits](#).

For researchers whose investigations in the Monument will require any of the aforementioned NOAA Fisheries permits, ***no additional permits from the Service or NOAA Fisheries are proposed to be required for conducting research in the Monument.***

For researchers who are not partnering with NOAA or the Service and whose investigations in the Monument ***do not*** require one of the aforementioned NOAA Fisheries permits, ***the Monument management team proposes to require a Service-issued [Research and Monitoring Special Use Permit](#).***

In this way, all non-NOAA and non-Service research in the Monument would be permitted in some form by either NOAA Fisheries or the Service. NOAA Fisheries will also continue to offer voluntary [letters of scientific research authorization](#) to researchers who request them.

Researchers must adhere to all relevant laws and regulations in the Monument and secure all authorizations and permits required by other agencies for their research. Multiple permits and authorizations are required from other Federal agencies, including the U.S. Army Corps of Engineers and U.S. Coast Guard, for anchoring any scientific instrumentation to the seafloor (regardless of location in or outside of the Monument).

#### [Educational Trips](#)

At-sea educational trips occur on occasion in the Monument. At-sea trips that involve fishing-related educational activities are required to obtain an [Exempted Educational Activity Authorization](#) from NOAA Fisheries. The Monument management team proposes to continue this permitting requirement in the Monument.

The Monument management team proposes that educational at-sea trips in the Monument that are not partnering directly with either NOAA or the Service, and that ***do not*** involve fishing activities, be required to obtain a [General Activities Special Use Permit](#) from the Service. In this way, all non-NOAA, non-Service educational trips in the Monument would be evaluated and permitted.

#### [Photography and Filming](#)

There are multiple types of photography and filming that may occur in the Monument.

The Monument management team does not propose to require any permits for photography and filming with handheld equipment that is for personal use and enjoyment only. An example of this is taking photos and videos while whale watching to share with friends and family.

Under its Marine Mammal Protection Act authorities, NOAA Fisheries [requires permits for some photography and filming activities](#). If a photography or filming project in the Monument is intended for commercial or educational distribution and involves filming or photographing

whales, dolphins and/or seals in the Monument, it is important to contact NOAA Fisheries as soon as possible to determine whether a permit is needed.

For **filming** projects in the Monument intended for commercial distribution that ***do not*** involve whales, dolphins and/or seals, the Monument management team proposes that filmmakers obtain a [Commercial Special Use Permit](#) from the Service.

*Wildlife watching, blue water diving and sailing/boating/transiting*

NOAA Fisheries has no existing permitting requirements for passive recreational activities such as wildlife watching, diving, sailing, and boating in the region that includes the Monument. Consistent with Presidential Proclamation 9496, the Monument management team does not propose to create or require individual NOAA or Service permits for these activities.

## 2. Draft Environmental Assessment

NOAA, represented by the NOAA Fisheries Great Atlantic Region Fisheries Office (GARFO), and the U.S. Fish and Wildlife Service (Service), represented by the Northeast Region National Wildlife Refuge System program, have jointly developed this draft environmental assessment in accordance with the National Environmental Policy Act (NEPA, 42 U.S.C. 4321 et seq.) to evaluate the potential beneficial and adverse effects of implementing a management plan for the Monument. The Service and NOAA Fisheries, which together form the Monument management team, are joint lead Federal agencies on this draft environmental assessment, which is available for public comment from September 12, 2023, to October 26, 2023 (45 days). For more information on how to provide written and/or verbal comments on the draft management plan, please visit the [Monument's management plan website](#).

This draft environmental assessment also documents how the proposed draft management plan presented in Chapter 1 is compliant with the Endangered Species Act, Magnuson-Stevens Fishery Conservation and Management Act, Coastal Zone Management Act, and Marine Mammal Protection Act, in addition to other relevant executive orders and policies.

### Proposed Action

The Service and NOAA Fisheries (Monument management team), as joint managers of the Monument, propose to develop and implement a management plan to guide the work of the Monument for the next 15 years.

Chapter 1 of this document is the Monument management team's proposed draft management plan, which is identified as the "preferred alternative."

Current NEPA regulations (40 CFR §1501.5) state that environmental assessments shall be no longer than 75 pages (excluding appendices) unless a senior agency official approves in writing an environmental assessment to exceed that limit. To meet this page requirement, the Monument management team has focused this draft environmental assessment on the analyses necessary to determine whether there could be significant adverse effects to the human environment as a result of the proposed action.

### Purpose and Need

***The purpose of the proposed action is to provide a clear framework for management and community stewardship of the Northeast Canyons and Seamounts Marine National Monument for the next 15 years, as well as direction and guidance for the work of Monument staff and allocation of resources. Its purpose is also to give stakeholders and the public the opportunity to collaborate with the Monument management team to shape the management and work of the Monument.***

Effective, transparent management of the Monument is key to achieving conservation outcomes, as well as fulfilling the intent of Presidential Proclamation 9496, which established the Monument to protect its unique geologic features (deep-sea canyons and seamounts); provide opportunities for research and scientific exploration designed to further understanding of Monument resources and knowledge of the North Atlantic Ocean ecosystem and; provide opportunities for activities that will further the educational value of the Monument.

A clear and concise management plan for the Monument, developed and shaped by public and stakeholder input, will enable the Monument management team to,

- focus on a single, guiding framework for management;
- build the partnerships necessary to steward the Monument;
- systematically fill data and information gaps about Monument resources;
- allow stakeholders and the public to participate in Monument stewardship;
- and adaptively manage the Monument in response to new information.

*The need to develop and implement a management plan is derived from both legal mandates and well-established marine resource management and planning practices.*

The Monument was established through [Presidential Proclamation 9496](#) (Appendix A) issued on September 15, 2016, under the authority of the Antiquities Act of 1906. Proclamation 9496 tasked the Secretaries of Commerce and Interior with preparing a joint management plan for the Monument. Under this proclamation, the Secretaries are instructed to revise and update the management plan as necessary, and to work to continue advances in resource protection in the Monument area that have resulted from a strong culture of collaboration and enhanced stewardship of marine resources. An internal White House review of existing monuments and a subsequent [2020 Presidential Proclamation](#) on modifying the Northeast Canyons and Seamounts Marine National Monument, which reversed the prohibition on commercial fishing in the Monument, led to a delay in the initial development of the Monument's management plan.

[Presidential Proclamation 10287](#) (Appendix B), issued on October 8, 2021,

- reinstated the prohibition on commercial fishing the Monument;
- instructed the Secretaries of Commerce and Interior to manage the Monument under the directives of the Monument's establishing Presidential Proclamation (9496); and
- directed the Secretaries to develop a joint management plan for the Monument by September 15, 2023.

In accordance with the National Wildlife Refuge System Administration Act and National Wildlife Refuge System Improvement Act of 1997, the Monument is required to have in place a comprehensive conservation plan and revise it every 15 years, as needed. Comprehensive conservation plans for national wildlife refuges are science-based and public-centered, relying on public participation and input. The Monument's final management plan will serve as a comprehensive conservation plan in fulfillment of this legal mandate.

Additionally, a Monument management plan is needed because management planning offers a critically important opportunity to engage the public, Native American governments and communities, Federal and State agencies, and stakeholders in developing a shared vision, goals, and objectives for long-term conservation and protection of this special place.

For marine protected areas, such as the Monument, which have been created using executive authorities, participation in management planning may be the first opportunity for the public to provide input. It is well understood that the nature of community involvement in marine protected area management plays a strong role in how successful these areas are in conserving and protecting resources. Thus, development of a management plan is an important and

necessary first step in engaging and encouraging a community of stewards to care for the Monument and its unique, awe-inspiring ecosystems.

### Participating Agencies

The Navy, Department of State and USCG are participating agencies in this draft management plan and environmental assessment under NEPA. They have consulted with the Monument management team; provided expert technical advice on activities being proposed to occur in the Monument; reviewed and provided language for inclusion in the draft management plan and environmental assessment; and plan to meet regularly with the Monument management team as the management plan is implemented. These agencies all have open invitations to become formal cooperating agencies on this environmental assessment and the management plan at any point in time. They may also opt to formally join the Monument management team at any point in time.

The Monument management team reached out to the U.S. Air Force to identify any potential issues and coordination needs, but as there are no anticipated changes to flight patterns over the Monument, there was not a need for the U.S. Air Force to be formally involved.

### Activities outside the scope of the proposed action

In evaluating the proposed action of developing and implementing a management plan for the Monument, some issues are outside of the scope of this draft environmental assessment, including:

- **Evaluating the effects of activities prohibited in the Monument in its establishing Presidential Proclamation.** In accordance with the Council on Environmental Quality regulations, 40 C.F.R. § 1501.1, in determining whether NEPA applies, Federal agencies should consider, “whether the proposed activity or decision, in whole or in part, is a non-discretionary action for which the agency lacks authority to consider environmental effects as part of its decision-making process.” Neither the Service nor NOAA have discretion related to the enactment of the prohibitions in Presidential Proclamation 9496, which established the Monument. While the draft management plan identifies activities to ensure compliance with these prohibitions, neither NOAA nor the Service have discretion over the prohibitions themselves and are not able to consider any alternatives to them. Consequently, these prohibitions are not subject to NEPA and their effects on the human environment are not considered within the scope of this draft environmental assessment. The prohibitions are:

- 1. Exploring for, developing, or producing oil and gas or minerals, or undertaking any other energy exploration or development activities within the monument.*
- 2. Using or attempting to use poisons, electrical charges, or explosives in the collection or harvest of a monument resource.*
- 3. Introducing or otherwise releasing an introduced species from within or into the monument.*
- 4. Removing, moving, taking, harvesting, possessing, injuring, disturbing, or damaging, or attempting to remove, move, take, harvest, possess, injure, disturb, or damage, any living or nonliving monument resource, except as provided under regulated activities.*



*5. Drilling into, anchoring, dredging, or otherwise altering the submerged lands; or constructing, placing, or abandoning any structure, material, or other matter on the submerged lands, except for scientific instruments and constructing or maintaining submarine cables.*

*6. Fishing commercially or possessing commercial fishing gear except when stowed and not available for immediate use during passage without interruption through the monument (with the exception of the red crab fishery and the American lobster fishery, which is allowed through September 15, 2023).*

- **Evaluating the effects of submarine cable maintenance and installation.**

While listed as a regulated activity in the establishing proclamation, regulation of and analyzing the effects of submarine cable installation and maintenance are outside the scope of this draft management plan and environmental assessment.

- **Evaluating the effects of shipping vessel traffic.**

Presidential Proclamation 9496 states that the Monument shall not unlawfully restrict navigation, overflight, and other internationally lawful uses of the sea in the Monument. This draft management plan does not consider any regulation of the shipping vessel movement in the Monument; and the draft environmental assessment does not evaluate the effects of shipping vessel traffic on marine resources. The draft management plan does identify information-gathering activities related to shipping vessel traffic, in partnership with the USCG.

- **Evaluating routine activities of an unusually large scale or scope.** There could be routine activities evaluated in this draft environmental assessment (such as a research project or filming project) that are proposed on an unusually large scale or scope. In these situations, the activities may no longer be considered routine and the Monument management team may require additional evaluation under NEPA.

- **Evaluating unanticipated future proposed activities.** There are many new and emerging technologies being developed for use in the ocean environment, and it is not possible for the Monument management team to predict or analyze the effects of all the projects or activities that could be proposed in the Monument in the future. This draft environmental assessment evaluates the effects of the common types of activities that the Monument management team believe are likely to be undertaken in the Monument at this point in time. Supplemental planning documents and NEPA evaluations that tier off this environmental assessment may be required to address unanticipated activities that could be proposed in the future.

## Background

Early information gathering and research for the management plan took place internally within the Service and NOAA Fisheries from the time of the Monument's establishment in 2016 through 2021 and included gathering references and information on Monument resources and interagency discussions about management issues.

The Service and NOAA Fisheries began *formal pre-scoping* for the management plan in late 2021. *Pre-scoping* involved the two agencies talking together about their existing permitting

authorities over resources within the Monument; contacting Native American governments; talking with other interested Federal agencies, States, and stakeholder groups; planning the number, location and timing of public scoping meetings; developing a written Notice of Intent to announce public scoping; hiring a planner to draft the plan; and contracting with Kearns & West to provide facilitation and planning support for public scoping meetings.

### Public Scoping

Formal public scoping began on November 27, 2022, when the Service published a press release announcing that NOAA and the Service were developing a management plan for the Monument and were accepting public scoping comments in writing and verbally at four public engagement sessions held on:

- Tuesday, December 6, 2022 (in person, Mystic Aquarium)
- Friday, December 9, 2022 (virtual)
- Monday, December 12, 2022 (in person, New England Aquarium)
- Monday, December 19, 2022 (virtual)

On December 28, 2022, the Service and NOAA jointly published a [Notice of Intent](#) in the Federal Register formally announcing their intent to develop a management plan for the Monument and requesting ideas and comments from the public on topics related to Monument research, outreach and engagement, environmental education, and resource conservation. Written comments were accepted until January 31, 2023. While the public meetings occurred before the Notice of Intent was published, verbal comments provided during the four public engagement sessions and any written comments received prior to the Notice of Intent were included and considered with all the written comments received after the Notice of Intent was published.

A total of 117 people attended the four meetings. Fifty-eight people attended the in-person meetings and 59 attended the virtual meetings. Written comments could be provided by mail, e-mail, or handwritten comment card (accepted at the in-person public engagement sessions only). A total of 981 written submissions were received, 949 of which were duplicates of a single form letter from a letter writing campaign. In addition to the letter writing campaign, the Monument management team received another 22 written submissions by mail or email, and 10 handwritten submissions on comment cards.

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*In-person meeting attendees: 58*

*Virtual meeting attendees: 59*

*Number of written comments received: 981*

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Within the comments received, Kearns & West identified 765 unique statements offering suggestions or recommendations for the management plan. Out of those statements, the Kearns & West team identified 39 “key takeaway” recommendations, which are summarized in its report, “Northeast Canyons and Seamounts Marine National Monument Management Plan Public Scoping Key Takeaways” (Appendix D), which was [published on-line](#) on June 6, 2023. The Scoping Key Takeaways report includes as an appendix all of the verbatim comments that were submitted during public scoping. The public comments greatly informed the draft management plan presented in Chapter 1.

## Focus Groups

After the conclusion of the public scoping and comment period, Kearns & West hosted and facilitated, on behalf of the Monument management team, seven focus group meetings to gather additional information from topical experts needed to inform the management plan. The focus groups addressed four topics: research and exploration, communication and community engagement, best management practices, and stewardship. The Monument management team needed more information from those with expertise in these four topics to add more detail to the objectives and activities in the draft management plan.

Representatives from 11 federally recognized and three state recognized Native American governments were invited to attend the focus groups, along with an additional 105 individuals from 68 organizations with specific expertise in marine research, environmental education, management of protected areas, marine recreational activities, and commercial fishing. A total of 42 individuals responded to the invitation, and 35 attended a focus group. No representatives from Native American governments responded or attended. The Monument management team will continue to explore other avenues for consulting with federally recognized Native American governments and engaging state recognized and other Native American governments and communities in management plan development.

The focus groups were held virtually in February and March 2023, and each lasted 90 minutes. Kearns & West facilitated each discussion based on a series of questions relevant to each focus group topic and produced a summary report (Appendix E). The summary report includes the questions that were asked of each focus group and a summary of participant responses.

The feedback from both public scoping and the focus groups contributed substantially to the draft management plan, both by shaping the alternatives and making the plan more robust and detailed. The Monument management team greatly values the time that the public and focus group participants invested in helping draft this management plan.

## Commenting on the Draft Environmental Assessment

The Monument management team requests comments on this draft management plan and environmental assessment from September 12 to October 26, 2023 (45 days). The Monument management team is particularly interested in comments, ideas, opinions, data, and analyses related to the vision, goals, objectives, and activities in the plan; any potential partners who should be referenced; the proposed permitting system; and the effects analysis.

Comments can be submitted verbally during three in-person and three virtual public meetings. For the most up to date information on meeting times and locations, please visit the [Monument's management plan website](#).

Comments can be submitted in writing both electronically and by mail. For instructions on how to submit comments, please visit the [Monument's management plan website](#).

The Monument management team will consider all comments received during the public comment period, determine whether to make any changes to the management plan and environmental assessment based on those comments, and include a written response to comments in the final management plan and environmental assessment. The agencies anticipate that the final management plan and environmental assessment will be published in early 2024.

## Proposed Alternatives

In accordance with NEPA, the Monument management team is evaluating a reasonable range of alternatives for its proposed action, including a “no action” alternative:

**Alternative 1:** No Action

**Alternative 2:** Chapter 1 draft management plan and proposed permitting system that leverages existing permitting programs (*preferred alternative*)

**Alternative 3:** Chapter 1 draft management plan with a different approach to permitting that would create and require a joint-agency access permit for all access to the Monument (in addition to any existing NOAA and Service permitting requirements)

### *Proposed Alternative 1: No action*

Proposed Alternative 1 is the “no action” alternative, which the Monument management team is required to evaluate under NEPA. Under the no action alternative, no management plan would be developed and implemented for the Monument.

The Monument management team would still be responsible for managing the Monument under its respective authorities, but there would not be a written, publicly accessible plan that explains how that work would get done, and how coordination between NOAA and the Service would occur. It is assumed that wildlife watching, diving, boating, educational trips, photography and filming, research, and recreational fishing would all continue to occur in the Monument, as would many of the coordination, outreach, and engagement activities described in the Chapter 1 draft management plan. But there would not be a clearly identified approach to management, permitting, stewardship, research, exploration, engagement, and outreach, including specific goals, objectives, and timelines. Management and permitting issues would likely be dealt with on a case-by-case basis.

### *Proposed Alternative 2: Chapter 1 draft management plan and proposed permitting system that leverages existing permitting programs (preferred alternative)*

Proposed Alternative 2 is the Monument management team’s **preferred alternative**. Under Alternative 2, the Monument management team proposes to adopt and implement the draft management plan, including the proposed permitting system, as presented in Chapter 1.

The Chapter 1 draft management plan includes a wide variety of activities organized under three broad program areas: Management & Stewardship, Research & Exploration, and Engagement & Education.

The proposed permitting system in Chapter 1 uses as a foundation the existing NOAA permitting structures already in place for recreational fishing, scientific research, educational trips that involve fishing, and photography and filming of marine mammals. NOAA Fisheries has detailed and comprehensive websites explaining its permitting processes and ocean user groups are familiar with these permitting processes. Service special use permits are proposed to be required for some activities for which NOAA does not currently have existing permitting structures in place.

Under this alternative, no permits would be required for wildlife watching, diving or recreational boating trips in the Monument. Presidential Proclamation 9496 states specifically that, “nothing in this proclamation is intended to require that the Secretaries issue individual permits in order to allow such activities.” Under Alternative 2 the Monument management team would work with partners to use surveys and remote technologies to understand use of the Monument, and would work with user groups to build partnerships and develop voluntary information-sharing mechanisms.

*Proposed Alternative 3: Chapter 1 draft management plan with a different approach to permitting that would create and require a joint-agency Monument access permit for all access to the Monument (in addition to existing NOAA Fisheries permitting requirements).*

Under proposed Alternative 3, the Monument management team would adopt and implement the Chapter 1 draft management plan with changes to the permitting program and permitting-related activities. This alternative was developed specifically in response to public comments stating that uses of the Monument should be strictly monitored to ensure protection of sensitive ecosystems.

The Monument management team would take a different approach to permitting under Alternative 3 compared to that proposed in Alternative 2. Under proposed Alternative 3, the Monument management team would develop a joint-agency Monument access permit that would be required for all non-NOAA, non-Service access to and use of the Monument, including for recreational fishing, whale watching, bird watching, recreational boating, research, photography and filming, and educational at-sea trips.

Under this alternative, the draft management plan activities in Chapter 1 would be revised to focus more heavily on activities that involve:

- developing the joint-agency Monument access permit;
- informing the public and user groups about the requirement to apply for the joint-agency Monument access permit;
- issuing joint-agency Monument access permits; and
- ensuring compliance with the requirement to obtain a joint-agency Monument access permit.

Under this alternative, the application to get a permit for recreational access (boating, recreational fishing and wildlife watching) would be an on-line process. Applying for joint-agency access permits for research, educational trips, and filming and photography (for distribution) would also be an on-line process but would require a more detailed application and additional review time by Monument staff (similar to that required for Service special use permits).

This joint-agency Monument access permit would be required only for activities occurring within Monument boundaries and would be *in addition* to any permits that are currently required by NOAA Fisheries and the Service. As an example, a charter boat taking anglers to catch recreational tuna in the Monument would need the mandated Highly Migratory Species Charter/Headboat permit from NOAA Fisheries for its activities, as well as a joint-agency Monument access permit.

The joint-agency access permit would not be intended to restrict recreational access but would be used to track and understand all uses of the Monument and ensure that anyone entering the Monument was aware of all prohibitions in the Monument.

The estimated annual budget presented in the Chapter 1 draft management plan would not apply to Alternative 3. More staff and a higher budget would be necessary to implement this alternative, which would focus more on enforcement and compliance than on community stewardship.

#### *Alternatives eliminated from further consideration*

**Establishing a formal advisory committee under the Federal Advisory Committee Act -** Public involvement in and feedback on Monument management is key to effective management of this unique marine environment. During the public scoping period, the public expressed an interest in the formation of an advisory council for the Monument similar to those created for national marine sanctuaries. National marine sanctuary advisory councils are formed by NOAA under authorities specific to the National Marine Sanctuaries Act. The Monument, because it is not a national marine sanctuary, does not operate under the authorities of the National Marine Sanctuaries Act and cannot establish an advisory council using the same procedures.

To establish a formal advisory committee, the Monument would need to follow Federal Advisory Committee Act (FACA) rules and procedures. Establishing an advisory committee using this process is involved and time-consuming, requiring significant staff effort, along with an involved review process for applicants.

The Monument management team estimates that establishing an advisory committee in accordance with FACA could require up to 50% of the Service Superintendent's and NOAA Fisheries Monument lead's time for at least the first two years of management plan implementation. Given the variety of other high priority work needed to manage the Monument and the other options available for fostering public involvement in Monument management, the Monument management team eliminated establishing a formal advisory council under FACA from further consideration. The Chapter 1 draft management plan identifies other ways the public and stakeholders can be involved in Monument management.

**Banning recreational fishing from all or portions of the Monument –** During public scoping and during focus group meetings, it was suggested that, if commercial fishing is not allowed in the Monument, then recreational fishing also should not be allowed, or should be heavily restricted. Presidential Proclamation 9496, which established the Monument, identifies recreational fishing as a regulated activity that may be permitted if the activity is consistent with the care and management of the objects within the Monument.

The purpose of the Monument is, in part, to provide opportunities to further the educational value of the Monument and connect people with its unique ecosystems. Recreational fishing presents an important opportunity to connect people with the Monument and increase their understanding of the species that depend on it. Additionally, the Monument is managed by the Service as a unit of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act, which requires the Service to ensure that opportunities are provided for compatible wildlife-dependent uses, such as fishing, and to provide increased opportunities



for families to experience activities such as fishing and other traditional outdoor activities (16 U.S.C. 668dd) in the National Wildlife Refuge System.

At this time, the Monument management team has not found evidence to suggest that the level of recreational fishing in the Monument or the gear or practices associated with recreational fishing in the Monument are inconsistent with the care and management of the objects within the Monument, particularly the deep-sea coral communities.

The Monument management team's understanding is that recreational fishing in the Monument occurs almost solely in the Canyons Unit and is primarily geared toward rod and reel fishing for highly migratory species, which should not cause seafloor disturbance or significant impacts to species in the Monument, and which is intensely regulated through international conventions. The management team does not have concerns about impacts of recreational fishing to the unique geologic features of the Monument or the ecological communities that rely on these features.

Thus, additional restrictions on recreational fishing in the Monument – beyond those NOAA Fisheries may impose under its authorities under the Magnuson-Stevens Fishery Conservation and Management Act – are eliminated from further consideration. Under proposed Alternative 3, there would be an additional permitting requirement for recreational fishing (and all recreational access) of the Monument, but that permit would be used to track recreational use of the Monument, not restrict it.

**Partial or full re-opening of the Monument to commercial fishing** – During public scoping comments were submitted requesting that the Monument management team consider fully or partially re-opening the Monument to commercial fishing activities in the draft management plan. Presidential Proclamation 9496, which established the Monument, prohibits commercial fishing in the Monument (in some fisheries, through a phase-out process that is complete on September 15, 2023) and does not give either NOAA Fisheries or the Service discretion to make changes to this prohibition. Thus, alterations to the commercial fishing prohibition are eliminated from further consideration in the draft management plan and environmental assessment.

**Alteration to existing vessel traffic patterns in the Monument** – Scoping comments raised concerns about the adverse impacts of shipping vessel traffic to marine species. Presidential Proclamation 9496, which established the Monument, does not categorize shipping as either a regulated or prohibited activity, but does state that,

*“the management plan and their implementing regulations shall not unlawfully restrict navigation and overflight and other internationally recognized lawful uses of the sea in the monument and shall incorporate the provisions of this proclamation regarding U.S. Armed Forces actions and compliance with international law. No restrictions shall apply to or be enforced against a person who is not a citizen, national, or resident alien of the United States (including foreign flag vessels) unless in accordance with international law. Also, in accordance with international law, no restrictions shall apply to foreign warships, naval auxiliaries, and other vessels owned or operated by a state and used, for the time being, only on government non-commercial service, in order to fully respect the sovereign immunity of such vessels under international law.”*

At this time, the Monument management team does not have sufficient information related to either the environmental impacts of existing shipping vessel traffic in the Monument or the

lawful mechanisms through which management of shipping vessel traffic in the Monument could occur. Thus, alterations to shipping vessel traffic in the Monument are eliminated from further consideration.

The Monument management team, in cooperation with the USCG, has identified activities in the management plan to analyze Automatic Identification System (AIS) tracking data from vessels transiting the Monument to better understand the nature of shipping vessel traffic in the Monument. The Monument management team will work with the USCG, marine mammal experts, pelagic seabird experts, and the shipping industry to understand better whether impacts are occurring to Monument resources and will work in partnership to address impacts.

## Affected Environment and Environmental Effects

### *What is the affected environment?*

NEPA requires that Federal agencies define and describe the area (including biological, physical, cultural, socioeconomic, and historical resources) that will be affected by the proposed action and alternatives. In this case, the affected area includes the area (including air, water, and seafloor) within the Monument physical boundaries. There are also onshore communities that are connected to the Monument. The onshore affected environment is considered to include the region from Maine to New York.

### *What activities are being evaluated?*

A wide range of activities may take place in the Monument to differing extents under all three management plan alternatives. These activities fall within two general categories: management and program activities (onsite and onshore); and onsite use activities in the Monument.

## Management and Program Activities

- **Onshore routine office and management activities:** attending virtual and in-person meetings (including driving); developing and publishing reports; data analysis; hosting public meetings; hosting volunteer steward trainings; developing needs assessments, management plan amendments, or step-down plans; developing financial agreements to fund Monument-related projects; reviewing permit applications and issuing permits; conducting media outreach through press releases and interviews; maintaining a web and social media presence.
- **Onshore educational and outreach activities:** Developing and funding construction of exhibits; attending and participating in person in a wide variety of events throughout the Monument region; visiting classrooms (including driving).
- **Onshore research activities:** Interviews; travel to and study of historical and cultural collections; data analysis (including study and cataloging of collected biological and physical samples, digitizing past dive footage, and conducting analysis of recent dive footage).
- **Onsite field research and monitoring activities:** It is anticipated that between one and five onsite field research, stewardship and monitoring trips may happen in the Monument in any given year, depending upon funding. Field activities may include the use of telemetry on seabirds and marine mammals; ship-based acoustic bathymetric surveying using multi-beam and sidescan sonar; underwater filming, sample collection, and general exploration using underwater remotely operated vehicles (ROVs) and autonomously

operated vehicles (AUVs); collection of biological and physical samples; ship-based and aerial (planes and drones) surveys; observational studies of wildlife; installation of permanent or semi-permanent monitoring buoys anchored to the seafloor.

- **Onsite marine debris and ALDFG mechanical removal:**

Commercial fishing vessels or small boats may use multiple means to remove debris from the environment. Methods include grapples (pulling a hook and chain along bottom to snag debris on the bottom) to pick up lobster pots, winches on a surface vessel, or ROVs may be used for targeted removal. If grapples are used, they are paired with side scan sonar to ensure removal efforts are targeted and can avoid sensitive areas. The specific process used for ROVs may use a snipping device attached to the manipulating arm to cut line and a grabbing device to grasp material such as a net fragment; then a carabineer (metal hook) could be clipped onto a net or trap with the grabbing arm, and as the ROV was retrieved the line is transferred to the boat's hydraulic winch and the gear can be hauled to the surface. Side scan sonar may also be utilized to help locate derelict gear. Typically, the sonar used is commercially available low powered, high frequency sonar systems. Given that more assessment of marine debris and ALDFG is needed, it is uncertain how frequent any marine debris and ALDFG removal might be.

- **Restoration of deep-sea corals:** Deep-sea coral restoration is a new and evolving stewardship practice. The Monument management team is not sure whether there is a need for deep-sea coral restoration in the Monument at this time, but it could be a management strategy in the Monument. Deep-sea coral restoration involves collecting coral samples to culture and grow in controlled aquaculture laboratories until they are a sufficient size to be outplanted in the deep-sea environment (using ROVs with robotic arms).
- **Onsite routine enforcement and compliance activities:** Vessel trips or flyovers of Monument; writing trips reports; investigative work including interviews and report writing. It is uncertain how many additional vessel trips or flyovers, beyond those currently taking place, would be needed to ensure compliance with Monument rules and regulations. Law enforcement agencies are resource constrained and prioritization of enhanced enforcement of Monument rules and regulations may require de-emphasizing other important regulations and priorities.

## Onsite Use Activities

- **Onsite non-fishing recreational and visitor activities:** wildlife watching, blue water diving, sailing, boating, photography, and filming (with handheld devices for personal enjoyment only), educational trips that do not involve fishing activities.
- **Recreational fishing activities:** headboat and charter boat (for-hire) recreational fishing trips for highly migratory species and private angling.
- **Onsite photography and filming (for other than personal use):** filming of documentaries or other film genres for distribution; photography for publication or distribution.
- **Onsite education activities that involve fishing:** overnight trips aboard vessels to the Monument for students and teachers to provide hands-on instruction in the field of marine biology, ornithology, and oceanography, which could include fishing activities

that do not disturb the seafloor, such as plankton tows, and other sampling of organisms, water quality monitoring and analysis, and observation of wildlife.

*How are “effects” described and evaluated in NEPA documents?*

In evaluating the effects of their proposed actions on the environment, NEPA asks Federal agencies to consider whether effects are,

***Beneficial or adverse*** – Will the action have a positive impact or a negative impact on the affected environment?

***Direct or indirect*** – Will the action directly affect a resource? For example, anchoring a scientific monitoring buoy to the seafloor causes direct disturbance of the seafloor. Or will the action cause a chain reaction that will indirectly affect a resource? For example, greenhouse gas emissions may contribute to warming sea temperatures, which may cause a species to move further north to cooler water.

***Short-term or long-term*** – Will the action cause an effect that is temporary and over quickly? Or will the action cause a permanent or long-term change to a resource?

***Cumulative in nature***– cumulative effects are the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions (including action by federal and non-federal agencies and private parties)

Federal agencies must also determine whether any adverse effects are significant or insignificant within the context of NEPA. In making a significance determination, agencies are asked to consider both the context and intensity of the proposed action(s). How severe will any adverse effects be? Will public health or safety be adversely affected? How permanent will any adverse effects be? Are there unique characteristics of the place where the activity is occurring? Are there endangered or threatened species or habitats that will be adversely affected? Are there ways to mitigate adverse impacts? Is there public controversy around adverse environmental effects that may occur? Is there uncertainty about the effects or unique risks associated with the proposed action? Are cumulative adverse effects expected? Will there be loss or destruction of significant scientific, cultural, or historical resources? Does the proposed action(s) violate any federal, state, or local law imposed for the protection of the environment?

If a Federal agency finds in its environmental assessment that its proposed action(s) will have significant adverse effects to the environment, then it must complete an environmental impact statement to further evaluate those significant effects and identify ways to mitigate them. If the Federal agency finds that any expected adverse effects will be insignificant, the agency can issue a finding of no significant impact (FONSI) and move forward with implementing its proposed action(s).

*Documents incorporated by reference*

NEPA regulations (40 C.F.R. § 1501.5) instruct Federal agencies to keep environmental assessments brief and focused on the specific information the agency used to determine whether to prepare a FONSI or an environmental impact statement.

To assist in this effort, NEPA regulations (40 C.F.R. § 1501.12) also instruct Federal agencies to incorporate material, such as planning studies, analyses, or other relevant information, into environmental documents by reference to cut down on bulk without impeding agency and public review of the action.

The environmental effects discussion for this draft environmental assessment incorporates multiple other NEPA evaluations published by NOAA that evaluate the effects of a variety of research and recreational fishing activities within the geographic area that includes the Monument.

#### Physical Environment

The Monument is located approximately 130 miles southeast of Cape Cod, Massachusetts, within the North Atlantic Ocean. The Monument is comprised of two distinct units (the

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*The Pleistocene Era was the time in the Earth's history that spanned from around 2.5 million years ago to 11,700 years ago. It is commonly referred to as the "Great Ice Age".*

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Canyons Unit and the Seamounts Unit) covering 4,913 square miles of ocean floor and waters of the continental margin, off the southeastern portion of Georges Bank (Fig. 1, inside cover).

The canyons, which are cut into the continental margin, were created by sediment mass movements during and following sea-level lows that largely occurred during the Pleistocene Era. During the Pleistocene Era, the coastline of the eastern U.S. extended much farther seaward than it does today (Fig. 2). The seamounts are part of the New England Seamount chain, a chain of over twenty underwater extinct volcanic mountains (Fig. 3).

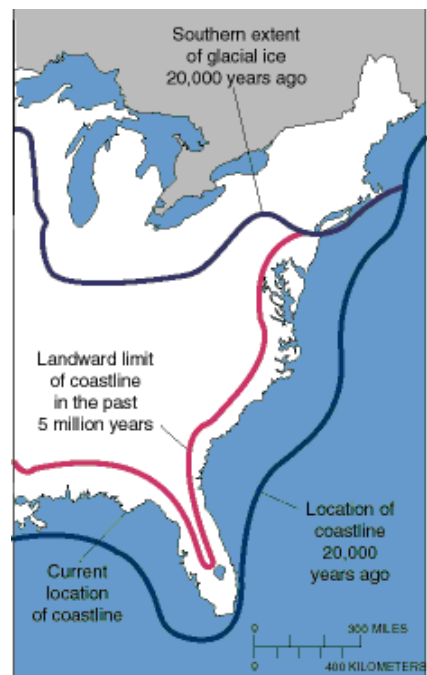


Figure 2 Graphic showing the location of the U.S. coastline during the Pleistocene Era, when the coastline extended much farther out into what is today the Atlantic Ocean (USGS).

There are three canyons that lie within Monument boundaries and cut deep into the continental shelf: Oceanographer, Lydonia, and Gilbert, along with several smaller canyons that are confined to just the slope. These include Filebottom and Chebacco canyons. The Canyons Unit consists of a small portion of the continental shelf, the continental slope, and the three canyons that cut into the continental slope.

There are four seamounts that lie within Monument boundaries and rise from the ocean floor: Bear, Physalia, Retriever, and Mytilus. The Seamounts Unit consists of a portion of the continental slope, the continental rise, the abyssal plain, and the four seamounts.

The shallowest seafloor depths in the Monument are located just north of the canyon heads and are around 92 meters (302 feet); and the deepest point in the canyons is 4,382 meters (14,377 feet) below sea level (Auster *et al.*, 2020). That is more than twice the depth of the Grand Canyon. Bear Seamount is the tallest of the four seamounts and its peak is 1,110 meters (3,641

feet) below sea level. Mytilus Seamount is the shortest of the four seamounts and its peak is 2,389 meters (7,838 feet or almost 1.5 miles) below sea level (Auster *et al.*, 2020).

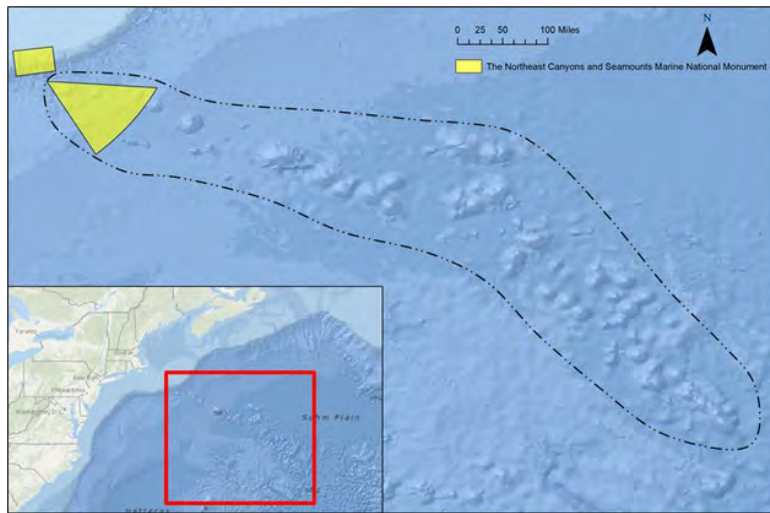


Figure 3 Map showing the Monument (the Seamounts Unit is shown as a yellow triangle and the Canyons Unit is shown as a yellow rectangle) within the context of the New England Seamount chain, which is surrounded by a dotted line and extends far past the U.S. Exclusive Economic Zone into international waters (ESRI Ocean Basemap).

The physical environment in the Monument, including the submarine topography in the Monument (steep slopes, deep canyons, and tall undersea mountains) and various currents that meet in the Monument area, plays an important role in the high diversity and abundance of species and ecosystems within the Monument (Auster *et al.*, 2020).

### *Seafloor Composition and Geology*

#### *Continental Shelf*

The outer continental shelf comprises a small portion of the Monument at the heads of the three canyons. The portion of the continental shelf that the Monument falls within is known as Georges Bank. Georges Bank was formed by the deposition of sediments left by retreating glaciers during the Pleistocene Era. Water depths within the bank are fairly shallow, ranging from 30 meters (100 feet) on its northwestern edge to around 200 meters (650 feet) on its southeastern edge (where the Monument is located).

#### *Continental Slope and Continental Rise*

The continental slope is the area in the Monument where the continental shelf slopes downward, descending at an average angle of 3-6 ° from the edge of the continental shelf until it becomes the continental rise. The base of the slope is defined by a marked decrease in seafloor gradient, which is the start of the continental rise.



Over time, gravity causes the continental slope to act as a depositional site for sediment moving from the continental shelf. Sediment composition becomes gradually finer down the slope, towards deeper waters. As sediment accumulates on the slope, the material eventually becomes unstable, resulting in sediment slumps, debris flow, and possible turbidity currents. These mass wasting processes vary in scale, magnitude, and may take place on a range of timescales. Slumps are typically characterized as involving short, localized, down-slope movement by a highly aggregated sediment mass; whereas turbidity currents are generally larger, faster moving events

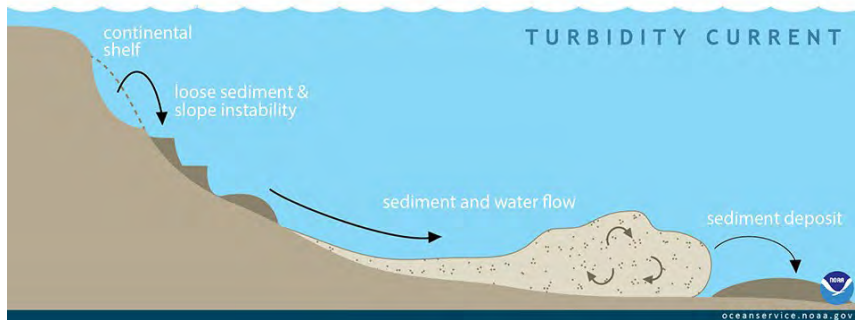


Figure 4 Labeled diagram showing the process that leads to a turbidity current (NOAA).

that can transport less aggregated sediments hundreds of miles (Fig. 4).

The continental rise begins at the base of the continental slope, where the seafloor gradient decreases. It is the boundary between the continental slope and the abyssal plain. Because of its

position at the base of the slope and at the base of most submarine canyons, the continental rise accumulates enormous amounts of fine sediments. The continental rise is primarily shaped by mass wasting events, deposition from laterally flowing contour currents, and the vertical settling of pelagic sediments (Heezen et al., 1966; Burk and Drake, 1974). A small portion of the Seamounts Unit, surrounding Bear Seamount, is comprised of continental rise habitat.

### Submarine Canyons

There are three submarine canyons within the monument boundaries: Oceanographer, Gilbert, and Lydonia Canyons (Fig. 5). These canyons are primarily cut into the continental slope and partially into the continental shelf and have a well-defined canyon axis and floor. These three canyons within the monument are “v” shaped in cross section, have steep walls, and are formed by erosion by rivers, mass-wasting processes on the continental slope, and/or turbidity currents.

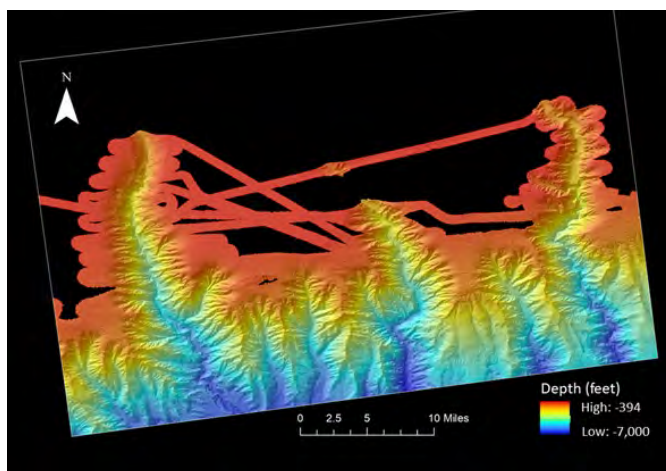


Figure 5 Bathymetric map showing the depth of all three canyons in the Monument. This map was created by NOAA from survey data collected during [NOAA's Okeanos Explorer ACUMEN project](#) in 2012.



The material on the seafloor surface varies widely based on location within the canyons (for example, canyon walls versus floors). Canyon walls are typically characterized by rock outcroppings and stiff Quaternary clay. Although the underlying substrate of the canyon walls tends to be harder solid substrate, a thin layer of rippled unconsolidated silt and sand commonly covers the surface (Valentine *et al.* 1980).

Communities of burrowing bottom dwellers in the canyons have received less attention from researchers, reflecting, in part, sampling difficulties. One exception is a type of burrowing community known as a "pueblo village". These habitats consist of burrow complexes in hard clay, often steeply sloped, in canyon walls. Burrowing is thought to be initiated by tilefish, but the habitats are also inhabited by lobsters, conger eels, Jonah crabs, squat lobsters, sea stars, and ocean pout in New England canyons. Similar habitats have been described from Hudson Canyon.

In contrast to the hard, intact substrate found on canyon walls, the canyon floor is primarily composed of unconsolidated sediment deposits such as gravel, sand, silt, and mud (depending on the canyon). These unconsolidated sediments are lifted by ocean currents leading to enhanced mixing and transport. As a result of these strong ocean currents, submarine canyons act as conduits to transport unconsolidated sediment from the continental shelf to the deep sea (Allen and Durrieu de Madron, 2009). Extensive sediment transport and erosion can create changes to canyon topography and is typically caused by turbidity currents (Shanmugam, 2006).

Oceanographer Canyon is the deepest and largest of the three canyons within the Monument and cuts deeply into the continental shelf and the continental slope. Oceanographer Canyon's floor is covered with large sand dunes, up to three meters (almost 10 feet) high and 15 meters (almost 50 feet) long. This medium to coarse grain sand is transported from the continental shelf, down the canyon wall, onto the canyon floor where it is mobile along the axis of the canyon as a result of strong currents (Valentine *et al.*, 1980; Valentine *et al.*, 1984).

Gilbert Canyon incises the continental shelf and has two major branches. Similar to Oceanographer, the floor of Gilbert Canyon also has dunes and rippled sand. Lydonia is the second largest of the three canyons within the Monument and incises the continental shelf and the continental slope. Unlike Oceanographer and Gilbert Canyons, Lydonia Canyon's floor is covered with coarse silt instead of coarse sand. This silt can be as thick as 24 meters (80 feet) in some portions of the canyon (Twichell, 1983). The dunes and coarser sand substrate of Oceanographer and Gilbert Canyons indicates that these canyons have higher current activity than Lydonia Canyon (Valentine, 1987).

#### *Abyssal Plain*

The abyssal plain is described as the flat seafloor area beyond the continental rise. Within the Seamounts Unit, the abyssal plain surrounds Physalia, Retriever, and Mytilus Seamounts (Bear Seamount is on the continental slope and continental rise, Fig. 6). The abyssal plain is generally characterized as ranging from approximately 3,048 to 6,096 meters (10,000 to 20,000 feet) in depth and has a flatter slope (e.g., 1:1,000; Heezen *et al.*, 1959). Within the Monument, abyssal plain depths range from 3,048 meters (10,000 feet) to approximately 4,442 meters (14,575 feet).

The portion of the abyssal plain that is found within the Seamounts Unit is known as the Sohm Plain. The Sohm Plain covers approximately 350,000 square miles of the Atlantic Ocean and is generally described as being featureless as a result of the thick layer of sediment that covers the uneven surface. The substrate found on the Sohm Plain largely consists of finer sediments such as, clay, silt, and pelagic sediments interspersed with coarse sediment deposits called turbidites - originating from turbidity currents. The fine-grained sediment is believed to be primarily transported by the very slow settling of materials from the water column (McGregor, 1968; Piper *et al.*, 1983).

### Seamounts

Bear, Physalia, Retriever, and Mytilus Seamounts are steep undersea mountains formed by volcanic activity. They are part of the New England Seamount chain that resulted from a mantle-plume hotspot, which has migrated eastward under the North American Tectonic Plate. Unlike islands, seamounts never break the surface of the water. The four seamounts within the Monument are largely conical in shape, although wave erosion over time has caused Bear and Mytilus seamounts to have plateaued or flat summits (Fig. 6).

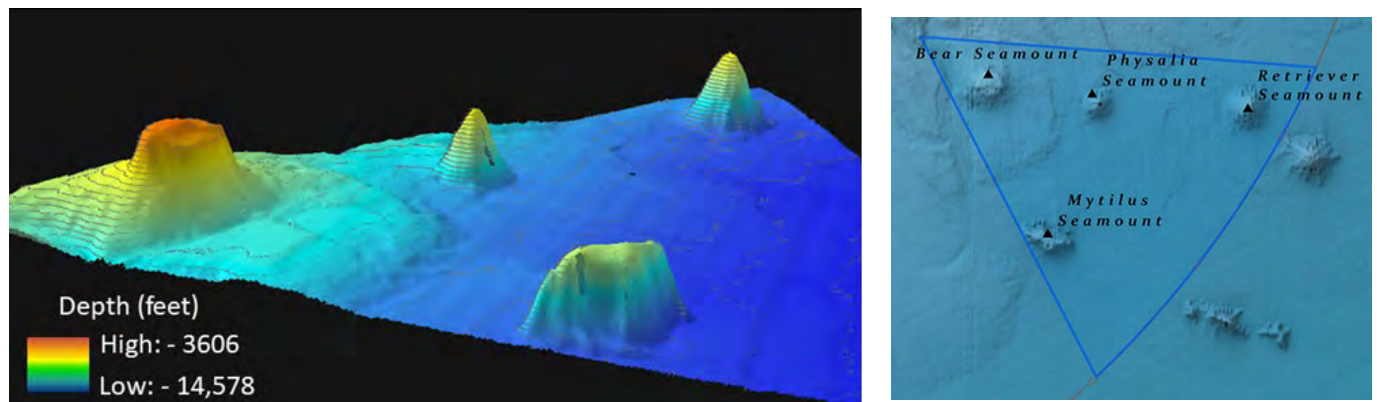


Figure 6 Three-dimensional graphic on the left showing the depth in feet for the Seamounts Unit next to a map (on the right) of the Seamounts Unit. Bear Seamount has a large, flat top and is the largest seamount. It is located furthest to the left in both graphics (NOAA).

The underlying foundation of the seamounts is volcanic in origin, so it is very different from the material that composes the continental margin. Seamounts are generally composed of hard basalt substrate, although fine-grained sediment is often found in topographic depressions that occur on the complex seamount topography.

The large distance between the seamounts and their extreme relief influence ocean current flow around them (Boehlert and Genin, 1987). Specific seamount characteristics that modify flow patterns include the spatial position on the seamount, depth, temperature, and seamount features, such as ridges and walls. Flow patterns, along with variation in substrate type, result in extremely diverse physical microhabitats on and surrounding the seamount (Auster *et al.*, 2005).

Bear Seamount is the westernmost and oldest of the New England Seamount chain - active around 100 million years ago. Unlike the other seamounts, Bear Seamount rises from the continental slope (Moore *et al.*, 2003). Thick sediment, outcrops of basaltic volcanic rock, and **glacial erratics** cover its summit. The Deep Western Boundary Current flows perpendicular to the New England Seamount chain and brings cold-water currents from the Labrador Sea. The eastern portion of Bear Seamount protrudes into this current (Moore *et al.*, 2003).

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*Glacial erratics are glacially deposited rocks that differ from the surrounding rock native to an area. Glaciers can pick up rocks and transport them over long distances before dropping them off in new homes.*

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Physalia Seamount is almost directly east of Bear Seamount and as a result is younger. The summit of Physalia Seamount lies at a depth of approximately 1,898 meters (6,230 feet), while the base of the seamount reaches down to depths of 3,352 – 3,657 meters (11,000 – 12,000 feet). Physalia Seamount rises from the Sohm abyssal plain and is largely conical in shape.

Mytilus Seamount is south of the other three seamounts. The summit of Mytilus Seamount lies at a depth of approximately 2,438 meters (8,000 feet), while the base of the seamount reaches down to depths of 3,810 – 4,114 meters (12,500 – 13,500 feet). Mytilus Seamount rises from the Sohm abyssal plain and has a largely flat summit, roughly 8.9 kilometers (5.5 miles) across.

Retriever Seamount is the furthest east of the four seamounts within the Monument boundaries, and as a result is the youngest. The summit of Retriever Seamount lies at a depth of approximately 1,950 meters (6,400 feet), while the base of the seamount reaches down to depths of 3,810 – 3,962 meters (12,500 – 13,000 feet). Retriever Seamount rises from the Sohm abyssal plain and is largely conical in shape.

#### *Water Column*

The open water column makes up a substantial component of the Monument. The water column in the Monument is primarily comprised of three horizontal regions, which are defined by depth and the associated amount of sunlight that penetrates through the seawater:

*Epipelagic = upper-most zone = 0 – 199 meters or 0 - 656 feet*

*Mesopelagic = “twilight” zone = 200 – 1,005 meters or 660 - 3,300 feet*

*Bathypelagic = “midnight” zone = 1,006 – 3,992 meters or 3,300 – 13,100 feet*

The epipelagic zone falls within the photic zone, meaning that these waters are exposed to enough sunlight to sustain photosynthesis. This upper layer of the ocean also interacts with the waves and wind at the surface, mixing the water and distributing the warmth from the sunlight. As a result of mixing, the epipelagic zone is nearly uniform in temperature (Day, 1999).

Below the epipelagic zone are the mesopelagic and the bathypelagic zones, which are considered to be in the aphotic zone. The aphotic zone is so named because very little to no sunlight penetrates through to these depths. The mesopelagic zone (200 – 1,005 meters or 660 – 3,300 feet) is known as the twilight zone because it receives very minute quantities of light and photosynthesis is not possible in this zone. The thermocline, a transitional area where water

temperature decreases rapidly, occurs in the mesopelagic zone (Day, 1999). The depth and strength of the thermocline varies seasonally, and as a result, strongly affects environmental conditions within the mesopelagic zone (Angel, 2003).

Below the mesopelagic zone is the bathypelagic zone (1,006 – 3,992 meters or 3,300 – 13,100 feet), also known as the midnight zone because there is no sunlight penetration. At these depths, temperature is much more constant, hovering around 39° F. Between the top of the mesopelagic zone (200 meters or 660 feet) and the bottom of the bathypelagic zone (3,992 meters or 13,100 feet), pressure increases 20-fold, from 20 to 400 atmospheres (Helfman *et al.*, 2009).

#### *Currents and Vertical Mixing of Waters*

Ocean currents are the directed movement of water. They occur on the ocean's surface and at its deepest depths and they circulate nutrients throughout the ocean. The interaction of multiple ocean currents with the Monument's deep canyons and seamounts creates an ocean environment that supports high levels of biodiversity.

The Monument is situated where the warm, salty waters from the Gulf Stream Current meet the cold, fresh waters from Nova Scotia and offshoots of the Labrador Current (Fig. 7).

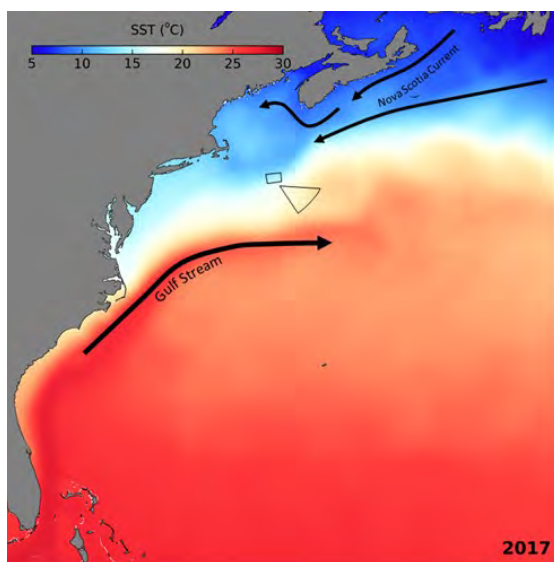


Figure 7 Graphic showing the convergence of warm, salty waters from the Gulf Stream Current with cold, fresh waters from the Nova Scotia Current and from other smaller currents splitting off from the large Labrador Current (Kavanaugh *et al.*, 2017)

#### *Georges Bank Currents*

Currents on Georges Bank are comprised of three primary forms – which can occasionally occur simultaneously. The first current is a persistent, surface current which moves in a clockwise gyre around the bank. This gyre is considered to be semi-closed, retaining waters within Georges Bank, particularly during the summer months when waters are more stratified by temperature and salinity differences (Fig. 8).

The second form that occurs on the Bank is a strong semidiurnal tidal current (two high tides and two low tides each day). The third form of current is wind-driven; these occur as a result of

storms (NOAA-NMFS, 2005). As a result of seasonal effects on storm direction and prevailing winds, these currents vary drastically in their direction and intensity (Li, 2015).



Figure 8 Graphic depicting the primary currents that circulate in and around Georges Bank (NOAA).

#### *Slope and Shelfbreak Currents*

Slope waters off the southeast flank of Georges Bank, where the Monument is located, are largely influenced by the Gulf Stream Current interacting with cooler Labrador slope waters (Townsend *et al.*, 2006). The Gulf Stream is one of the strongest currents in the world, and is considered to be a warm surface current, largely driven by wind-induced processes. As the warm, saltier surface waters of the Gulf Stream merge with the cooler Labrador/Scotian Shelf waters, water density increases, causing the newly cooled, salty water to plunge downwards, leading to increased ocean mixing (Wunsch, 2002).

There is also substantial mixing that is caused by the ocean current flow patterns created by the topographic relief associated with seamounts and submarine canyons (Boehlert and Genin, 1987; Allen and Durrieu de Madron, 2009). Common ocean flow patterns associated with these topographic features include, upwellings, and eddies (Auster *et al.* 2005; Allen and Durrieu de Madron 2009). Consequently, the seamounts and canyons cause additional mixing of waters within the Monument.

#### *Warm-Core Rings*

Gulf Stream water masses have been found to be dynamic and variable in their flow and in the formation of cold-core and warm-core rings (Richardson, 1983). Warm-core rings occur when cores of warm water, originating from the Gulf Stream, pinch off, becoming detached and surrounded by cooler slope waters (Fig.9). Cold-core rings form and detach to the south of the Gulf Stream. The largest frequency of warm core ring formations from the Gulf Stream Current is seen near the New England Seamounts (Auer, 1987).



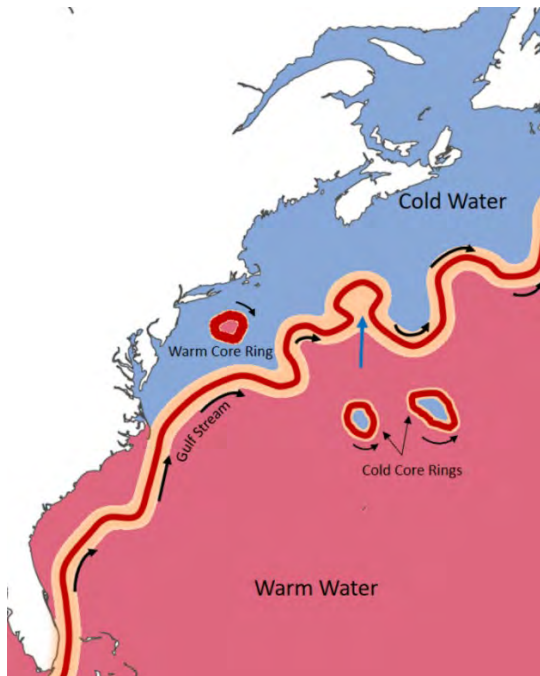


Figure 9 Diagram showing the warm Gulf Stream Current winding north into colder Labrador/Scotian Shelf waters. Occasionally, warm-core rings and cold-core rings will pinch off the Gulf Stream Current. The blue, north-pointing arrow shows a warm-core ring about to pinch off (graphic by Austin Rizzo, USFWS).

Warm-core rings have a large influence on the physical and biological oceanographic conditions that are found within the Monument. Approximately 1,828 meters (6,000 feet) in depth and 64 to 201 kilometers (40 to 125 miles) in width, warm-core rings move at an average speed of 3.2 miles a day (Ryan *et al.*, 2001). There is considerable annual variability in the number of warm-core rings that form in a given year (Chaudhuri *et al.*, 2009 a,b). While these warm-core rings are often an important factor in generating cross-shelf exchange of waters, their annual variability in occurrence can result in drastically different physical and subsequent biological oceanographic conditions (Hare *et al.*, 2002).

#### *Sea Temperature, Salinity, and Climate Change*

Sea surface temperatures of the shelf water on Georges Bank and the slope water (off the shelf) are quite different. Shelf surface waters (at 20 meters or 65 feet) are generally much cooler year-round than waters off the shelf. This difference is largely a result of the cooler Labrador Current/Scotian Shelf waters flowing south onto the shelf, and the influence of warm Gulf Stream waters flowing north into the slope (Flagg, 1987). Reports indicate that temperatures in the Gulf Stream current in the Monument during summer months can exceed 27 degrees Celsius (80 degrees Fahrenheit).

Salinity throughout the Monument waters generally increases during the summer months because of lower precipitation and higher evaporation rates (Lentz *et al.*, 2003). Salinity is also higher whenever the Gulf Stream meanders into the Monument waters or whenever a warm-core ring pinches off into the area (Andres, 2016).

Both sea temperatures and salinity in the Monument and the North Atlantic are being influenced by climate change. Climate change is leading to a decrease in salinity and “freshening” of deep waters in the North Atlantic Ocean (Dickson *et al.*, 2002), while rapid warming in the Gulf of Maine is accompanied by an increase in salinity in those warming waters.

Over the last two decades, ocean temperatures in the northeastern U.S. have warmed faster than most of the global ocean. In particular, the Gulf of Maine, which is adjacent to George’s Bank, has warmed faster than 99 percent of the global ocean over the past two decades (Pershing *et al.*, 2015) and this warming trend is expected to continue. The position of the Gulf Stream Current is moving north as a result of climate change, bringing warmer water to the region (Gonçalves Neto *et al.*, 2021).

Ocean temperatures continue to warm at both the surface and bottom throughout the northeast shelf. Seasonal sea surface temperatures in 2021 matched or exceeded the record temperatures from 2012. The region has been experiencing more frequent and intense marine heatwaves over the last decade, including 2021. Marine heatwaves measure not just high temperature but how long the ecosystem is subjected to the high temperature (NOAA Fisheries, 2023). In 2021, a large number of warm core rings were present in May and June, which likely partially contributed to the movement of warm, salty offshore waters onto the shelf (NOAA Fisheries, 2023).

Climate change has the potential to significantly affect deep-sea ecosystems in the North Atlantic and there are growing concerns about warming temperatures, increased acidification, and decreased oxygen availability in the deep sea. These types of changes can lead to reductions in food availability in the deep sea (Morato *et al.*, 2019).

Ocean acidification, which is the lowering of the sea water pH (causing it to become more acidic) is a global phenomenon that is being increasingly studied in the North Atlantic and is a growing concern for deep-sea communities. The increase in ocean acidity is caused by increasing amounts of carbon dioxide getting dissolved into ocean water. This increase in acidity can eventually lead to conditions that eat away at the minerals used by shell-building organisms such as corals, snails and bivalves to build their shells and skeletons (Doney *et al.*, 2009, Feely *et al.*, 2009). Efforts to model habitat for deep-sea corals and fish under changing climate scenarios suggest that the availability of suitable habitat for some deep-sea species will shrink significantly over the next 80 years due to climate change (Morato *et al.*, 2019). A climate assessment for habitats reported that deep-sea corals and sponges on seamounts and canyons of the continental shelf and slope ranked very high for climate vulnerability (Farr *et al.*, 2021).

Oceanographically, the Monument is incredibly complex and the effects of climate change on water temperature, salinity, and currents add to that complexity. There are many unknowns regarding the long-term effects of climate change on the many habitats in the Monument, from the surface down to the midnight zone.

#### *Light and Soundscape*

The lightscape and soundscape of the Monument has not been comprehensively assessed. There is some human-produced light in the Monument from vessels traveling through and overhead planes. However, there are no known fixed, lighted structures in the Monument.



Sound travels long distances underwater. The soundscape in the Monument is not free from human-produced sounds, which come largely from vessels (engines and sonar) and overhead flights. However, the soundscape in the Monument is believed to be quieter than other, busier ocean spaces.

#### *Weather and Air Quality*

There are multiple wind currents that help to determine weather patterns in the Monument, including the Gulf Stream Current, the Labrador current, and the North Atlantic Current. The Monument is experiencing increasing air temperatures and changes in storm and weather patterns due to climate change.

There is not much information available for air quality specifically in the Monument. Mercury deposition from the air into ocean waters is a worldwide concern. At least one study has shown that the North Atlantic Ocean has high concentrations of total mercury as a result of air deposition (Sorenson *et al.*, 2010). Accumulation of carbon dioxide, methane, and other greenhouse gasses in the atmosphere, which leads to warming air and water temperatures, is also a concern worldwide.

#### *Marine debris and other objects of human origin*

Marine debris, ALDFG (abandoned, lost, or otherwise discarded fishing gear), submarine cables (primarily telecommunications cables that rest on the seafloor), and shipwrecks are also a part of the Monument's physical environment.

There are 15 submarine cables that traverse the Seamounts Unit. Additionally, there is at least one report of a shipwreck in the Monument, though its exact location is not known. Archaeologists expect that there are likely other shipwrecks in the Monument but their locations have yet to be discovered.

The magnitude of floating marine debris, submerged marine debris, and ALDFG in the Monument is uncertain and needs to be assessed. Marine debris has become an increasingly recognized worldwide problem due to its ubiquity and resistance to breakdown. Marine debris can be generated from land-based and sea-based sources. Research shows that plastic waste is present in almost every marine habitat, from the surface to the seafloor. An estimated eight million metric tons of plastic waste enter the world's ocean each year (NAS, 2022). Fishing gear can also be lost in marine environments due to conflicts with other fisheries, vessel traffic, and extreme weather (NOAA in draft, 2023). Vessels can become abandoned or derelict due natural disasters and boat ownership neglect. All of these human-made objects can cause injury to marine species and habitats, but also can serve as habitat for marine species. More work, much of which is identified in the proposed draft management plan, is needed to locate and understand the effect of these human-made objects in the Monument.

#### *Special and Protected Habitats*

While the Monument itself is a protected habitat, there are additional special and protected habitat designations within the Monument, including three Habitat Areas of Particular Concern. Habitat Areas of Particular Concern are a specific type of Essential Fish Habitat, as defined under the Magnuson-Stevens Fishery Conservation and Management Act. Essential Fish Habitat is defined as the waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. The purpose of identifying Habitat Areas of Particular Concern is to focus

conservation, management, and research efforts on subsets of Essential Fish Habitat that are vulnerable to degradation or are especially important ecologically for federally managed fish and shellfish. The Habitat Areas of Particular Concern designation alone does not confer additional protection or restrictions to an area, but helps to focus conservation, management, and research priorities.

Almost the entirety of the Canyons Unit is designated as a Habitat Area of Particular Concern, as are portions of the Bear Seamount and Retriever Seamount (Fig. 10).

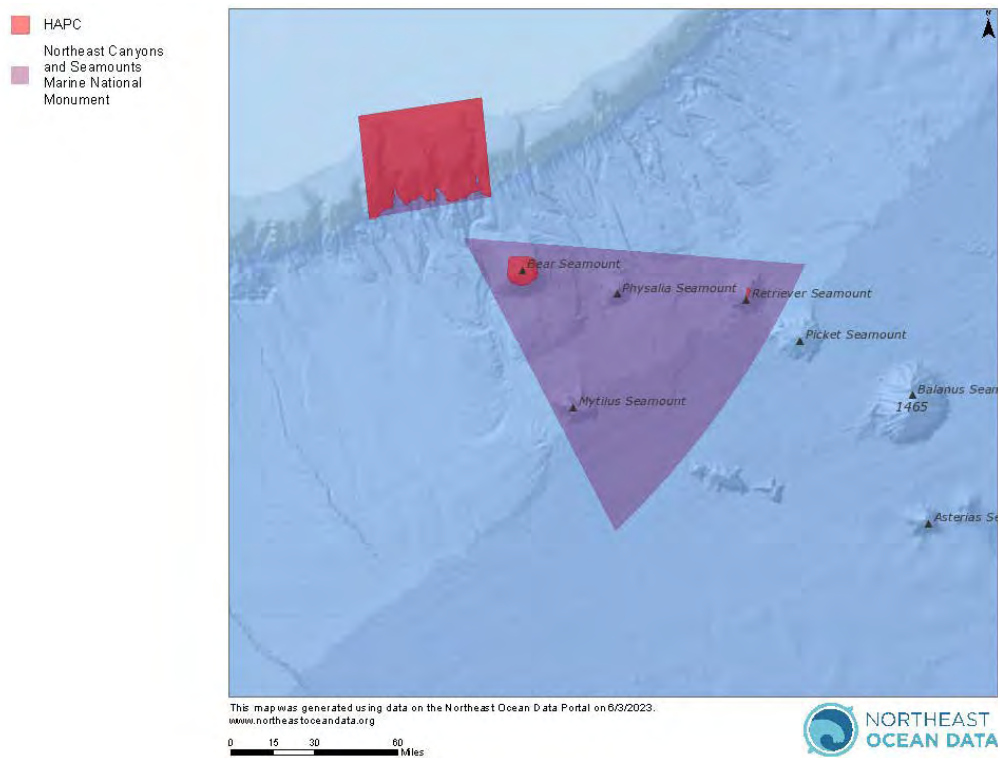


Figure 10 Map showing Habitat Areas of Particular Concern (abbreviated as HAPC and shown as red polygons) that fall within the Monument boundaries (Northeast Ocean Data Portal).

Additionally, the New England Fishery Management Council and NOAA Fisheries approved and implemented the Georges Bank Deep-Sea Coral Protection Area in 2021 (Fig. 11), which is a 65,146 square kilometer (25,153 square mile) area on the outer continental shelf in New England waters starting at 600 meters (1,968 feet) depth and includes approximately 82% of the Monument. This protection area was established to protect sensitive and vulnerable deep-sea coral habitats. The protections restrict the use of bottom-tending commercial fishing gear, with the exception of red crab pot gear, to protect deep-sea corals from interaction with and damage from such fishing gear. The Georges Bank Deep-Sea Coral Protection Area does not include a portion of the Canyons Unit that is around the canyon heads.

The Georges Bank Deep-Sea Coral Protection Area is adjacent to and complements the Frank R. Lautenberg Deep-Sea Coral Protection Area established by the Mid-Atlantic Fishery Management Council.

In 2017 the Northwest Atlantic Fisheries Organization agreed to protect the entire New England Seamount chain, amending the boundary of the area closed to bottom fishing to include all peaks in the chain. This proposal was introduced by the U.S. as a direct result of the Monument's designation. The protection of the entire chain will help in sustaining the biological connectivity and function of seamount communities at all depths.

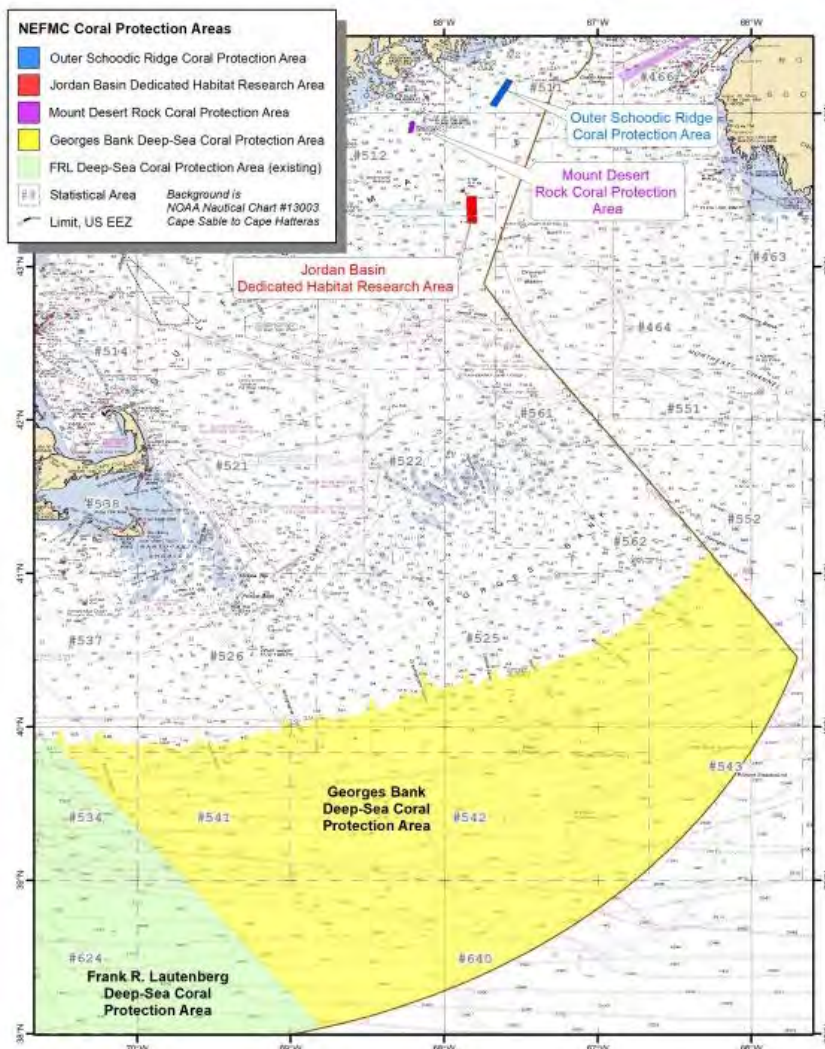


Figure 11 Nautical map showing the Georges Bank Deep-Sea Coral Protection Area in yellow, adjacent to the Frank R. Lautenberg Deep-Sea Coral Protection Area (NOAA Fisheries).

### Effects to the Physical Environment

Overall, there are no significant adverse effects (direct, indirect, or cumulative) to the Monument's physical environment expected to occur as a result of any of the three alternatives. There are multiple beneficial effects anticipated from all three proposed alternatives to varying degrees.

#### EFFECTS SUMMARY:

*No significant adverse effects to the physical environment anticipated under any of the three alternatives.*

*Beneficial effects to the physical environment anticipated under all three alternatives.*

The anticipated effects of each of the Monument management plan activity categories are described briefly below. Some of these activities that will take place in the Monument have already been analyzed in previously published NOAA NEPA documents, which are referenced below.

## **Management and Program Activities**

### **Onshore routine office and management activities, onshore educational and outreach activities, onshore research activities**

These activities do not involve travel to or work in the Monument and there are no anticipated direct adverse effects to the Monument's physical environment from these activities under any alternative.

Indirect adverse effects to the physical environment are expected due to increases in car travel and public transportation travel (air, train, bus, and subway) expected as the Monument staff grows and implements activities. This increased travel will result in air emissions that will have an adverse effect on climate change. Climate change is adversely affecting species and habitats in the Monument. Given the Monument's small staff, the adverse climate change effects are not expected to be significant. To mitigate these adverse effects Monument staff will:

- Use virtual meeting platforms when possible, particularly when the relationships between participants are well-established;
- Prioritize carpooling and using electric vehicles when available;
- Avoid air travel when feasible.

The Monument anticipates a variety of direct, indirect, cumulative and long-term beneficial effects to the Monument physical environment as a result of these activities. These beneficial effects include,

- An increase in awareness of ocean ecosystems and changes in everyday behaviors that benefit the ocean as a result of engagement and education activities;
- Improved partnerships and coordination that lead to more effective Monument management and stewardship;
- Increased understanding of impacts that may be occurring in the Monument.

### **Onsite field research activities**

*The effects of routine research activities on the physical, biological, cultural, historic and socioeconomic environment have already been evaluated in accordance with NEPA in detail in NOAA's Final Programmatic Environmental Impact Statement (PEIS) for Surveying and Mapping Projects in U.S. Waters for Coastal and Marine Data Acquisition. This PEIS encompasses the Greater Atlantic Region out to the U.S. Exclusive Economic Zone, which includes the Monument, and evaluates the direct, indirect, and cumulative effects on the physical environment (pages 79-90) of all the routine surveying and mapping work that is expected to take place in the Monument. It also discusses mitigation measures commonly taken to address adverse impacts. None of the activities proposed under any of the three alternatives would be anticipated to have significant adverse effects.*



*Additionally, NOAA's Marine Mammal Stranding and Health Program PEIS evaluates the effects of routine marine mammal health studies on the physical, biological, cultural, historic and socioeconomic environment. This PEIS describes and evaluates the common types of marine mammal health studies that might be conducted in the Monument and describes the mitigation measures that can be taken to mitigate any potentially significant effects. Consequently, no significant effects to any Monument resources are expected as a result of these activities.*

There are a variety of short and long-term, and direct and indirect, adverse effects to the physical environment anticipated as a result of the research activities proposed to occur in the Monument, which are covered in the above-mentioned PEISs. These insignificant adverse effects can include seafloor disturbance from submersible vehicles used in research (short-term seafloor disturbance), the anchoring of scientific monitoring buoys to the seafloor (long-term seafloor disturbance), sediment sampling, and alterations to the acoustic and visual landscape. Additionally, air emissions from research vessels that rely on fossil fuels are expected to contribute to climate change and some incidental spills of small amounts of waste are anticipated. These adverse effects are not expected to be significant, especially at the scale and frequency research trips are expected to occur in the Monument (one to five trips per year). Regular anchors are prohibited in the Monument, so seafloor disturbance from anchoring is not expected.

Overall, the Monument management team anticipates that there will be long-term, indirect, direct, and cumulative beneficial effects to the Monument's physical environment from the proposed onsite field research activities in the Monument under all three alternatives.

Increased understanding of Monument ecosystems will inform management decisions, improve understanding of deep-sea ecosystems, and could also lead to substantial contributions to medical science, and marine technology. The visual products that result from onsite research activities, including underwater photography and films of marine species and habitats, will also help to connect people to the Monument and inspire a sense of stewardship in viewers.

These effects are anticipated under all three alternatives because research would occur in the Monument regardless of which alternative is selected.

#### **Onsite marine debris and ALDFG mechanical removal**

*NOAA evaluated the impacts of marine debris research, assessment, prevention, reduction and removal activities throughout the U.S. in its Programmatic Environmental Assessment for the NOAA Marine Debris Program. This programmatic NEPA evaluation considers the full range of marine debris activities that may be implemented in the Monument and concludes that there are no significant adverse effects (direct, indirect, or cumulative) to the physical environment from these activities.*

It is uncertain the extent to which marine debris or ALDFG mechanical removal will be necessary in the Monument because the scale of these debris issues is not yet understood. Under proposed Alternatives 2 and 3, several activities would be implemented to assess and characterize impacts from marine debris and ALDFG in the Monument and determine whether removal is appropriate in all or some cases. This could lead to marine debris and ALDFG removal activities under either of these two alternatives.

Marine debris and ALDFG removal activities would only be undertaken in the Monument if there was a clear benefit to the physical and biological environment.

### **Restoration of deep-sea corals**

There are no significant adverse effects to the physical environment from deep-sea coral restoration efforts other than those already described for onsite research. The vessels and underwater vehicles typically used in research activities would be utilized for restoration activities. It is uncertain the extent to which restoration of deep-sea corals could occur in the Monument under any of the three proposed alternatives.

### **Onsite routine enforcement and compliance activities**

Routine enforcement and compliance activities related to the Monument onsite and onshore will have an overall beneficial effect to the physical environment because they will help to ensure compliance with the Monument's rules and regulations (which are highly protective of the physical environment).

There are no significant direct, indirect, or cumulative adverse effects to the Monument's physical environment anticipated from the onsite routine enforcement and compliance activities that would occur under any of the three proposed alternatives. Regular anchors are prohibited in the Monument, so seafloor disturbance from anchoring is not expected.

There are insignificant adverse effects expected to climate change for these activities under all three proposed alternatives. The establishment of the Monument and its accompanying prohibitions created a need for increased attention from law enforcement. This may result in a greater law enforcement presence in the Monument and its vicinity, including vessel trips and flyovers. Increases in the number of vessel trips to and flyovers of the Monument could lead to additional fossil fuel air emissions and adverse direct effects to air quality and climate change.

It is difficult to know how many additional trips to the Monument might occur under the three alternatives. However, Alternative 3 proposes an additional permitting requirement for all access to the Monument, which could lead to a greater need for onsite law enforcement in the Monument. Law enforcement in the Monument can be accomplished virtually and NOAA's Office of Law Enforcement will continue to explore new avenues to better observe remotely vessel activity within the Monument.

To mitigate the adverse climate change effects associated with increased law enforcement activities, the Monument has proposed in the draft management plan to,

- Utilize remote tracking technologies that do not require an on-water presence in the Monument, such as high-resolution satellite imagery and vessel tracking data, to the greatest extent possible to track compliance with Monument prohibitions and permitting requirements.

## **Use Activities**

### **Onsite non-fishing recreational and visitor activities; onsite photography and filming (for personal use); onsite education activities**

There are no significant adverse effects (direct, indirect, or cumulative) to the physical environment as a result of these activities, which would occur under all three alternatives. Adverse effects to climate change as a result of air emissions from vessels that run on fossil fuels are expected to be insignificant, given the relative infrequency of these trips. Regular anchors are prohibited in the Monument, so seafloor disturbance from anchoring is not expected.

Alternative 2 would allow these activities to occur in the Monument without a joint-agency Monument access permit, whereas Alternative 3 would require a joint-agency access permit to conduct these recreational activities in the Monument. It is possible that the need to apply for a permit under Alternative 3 could discourage some recreational users, resulting in less in-person recreational use of the Monument. If this were the case, the beneficial effects of in-person recreation would be reduced under Alternative 3, but the adverse effects related to air emissions would also be reduced (due to fewer visits to the Monument).

Virtual visitor experiences, which do not have the same climate footprint as a trip out to the Monument, is one way to mitigate the climate change impact of these onsite activities.

### **Recreational fishing activities**

*Based on the best professional opinions of NOAA Fisheries' management analysts and informal online review of fishing charter websites in the Northeast, the Monument management team believes that most recreational fishing in the Monument is for highly migratory species and occurs almost solely in the Canyons Unit of the Monument. Almost no recreational fishing activities have been documented in the Seamounts Unit.*

*NOAA Fisheries manages and permits the recreational fishing of many species, including highly migratory fish species, in the Atlantic and has evaluated the effects of recreational fishing for highly migratory species under its 2006 Final Consolidated Atlantic Highly Migratory Species Fishery Management Plan. The plan and subsequent amendments set recreational catch limits for these highly migratory species, protect their U.S. spawning habitats, and outline how NOAA Fisheries will engage with the international fishery management community to regulate highly migratory fish.*

*This management plan and its subsequent amendments were developed in accordance with NEPA and the plan includes an environmental impact statement that analyzes the effects of recreational fishing for these species on the physical, biological, cultural, historical and socioeconomic environment. This NEPA analysis did not identify any significant adverse effects to the physical environment as the result of the preferred recreational fishing management program for these species in the geographic area that includes the Monument.*

*The Mid-Atlantic Fishery Management Council developed and NOAA Fisheries implemented the Tilefish Management Plan, which included an environmental impact statement in accordance with NEPA, and subsequent amendments and policy frameworks. This analysis also does not identify any adverse effects to physical resources in the geographic area that includes the Monument as a result of the preferred recreational fishing management program for tilefish.*

Fishing gear typically used to catch highly migratory species, if used correctly, should not cause significant adverse effects to the seafloor. Regular anchors are prohibited in the Monument, so seafloor disturbance from anchoring is not expected.



There may be insignificant adverse effects to the physical environment from lost fishing line and gear, acoustic disturbance and light alteration from vessels, trash or the accidental discharge of fuel and other substances. Additionally, air emissions associated with vessel trips out to the Monument and back would cause adverse effects by contributing to climate change. These effects are not expected to be significant given that recreational fishing effort in the Monument is expected to be lower than in other areas closer to shore that can be reached on day trips.

Alternative 2 would allow recreational fishing to occur in the Monument without a joint-agency Monument access permit (NOAA Fisheries existing recreational permitting requirements would still apply), whereas Alternative 3 would require a joint-agency access permit to recreationally fish in the Monument (in addition to already-required NOAA Fisheries recreational fishing permits). It is possible that the need to apply for an additional permit under Alternative 3 could discourage some recreational users, resulting in less in-person recreational fishing in the Monument. If this were the case, the adverse effects to the physical environment, such as air emissions, would also be reduced.

### **Onsite photography and filming (for other than personal use)**

Onsite photography and filming (for other than personal use), which can occur in the Monument with appropriate permissions, stipulations, and approvals, is not expected to have any significant adverse effects to the physical environment (indirect, direct, or cumulative).

There will be an insignificant adverse effect to the physical environment as a result of air emissions and light and acoustic disturbance associated with vessel trips out to the Monument. Regular anchors are prohibited in the Monument, so seafloor disturbance from anchoring is not expected.

There is no expected difference in the frequency of these activities under the different alternatives.

### **Onsite education activities that involve fishing**

Onsite educational trips that involve fishing activities (such as plankton tows) are not expected to have any significant adverse effects to the physical environment. Regular anchors are prohibited in the Monument, so seafloor disturbance from anchoring is not expected. Seafloor disturbance (with a few exceptions for anchoring of scientific instruments and submarine cable installation and maintenance) is prohibited in the Monument, so bottom-disturbing fishing gear could not be used for educational purposes in the Monument.

There will be an insignificant adverse effect to climate change from the air emissions, acoustic disturbance and light disturbance, and incidental gear loss and discharges associated with vessel trips out to the Monument and back. These effects are not expected to be significant given the infrequency of educational trips out to the Monument (likely no more than one to three per year).

This activity would require a permit under all alternatives, so there is no expected difference in the frequency (and associated impacts) of these activities under the different alternatives.

## Biological Environment

The Monument is home to diverse and abundant populations of marine mammals, seabirds, sea turtles, fish, and invertebrates, several of which are listed as threatened or endangered under the Endangered Species Act. The Monument contains biodiversity hot spots for seafloor communities (including invertebrates, such as corals and sponges, as well as fish that live close to the seafloor), and is also home to unusual deep-sea chemosynthetic and xenophyophore communities (Auster *et al.*, 2020). Those who have had the opportunity to visit the Monument report seeing hundreds of marine animals at or near the surface on their trips.

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### *Chemosynthetic communities*

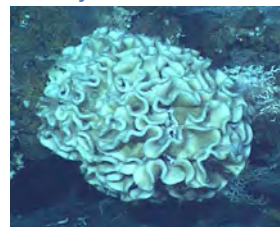
*Groupings of deep-sea organisms, including bacteria, tubeworms, mussels, and oysters, that feed off of dissolved gases, such as methane and sulfides, which seep up slowly through the seafloor.*

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So much of the Monument has yet to be explored and the exploration that has occurred has led to the discovery of new species. Understanding of ecosystem processes in the Monument is rapidly evolving. It is also clear that the larger marine ecosystems, within which the Monument lies, are experiencing changes due to climate change. Currents are shifting, temperatures are rising, waters are becoming more acidic, and species distributions are changing.

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*Xenophyophores – large single-celled organisms that can grow up to 20 centimeters and grow on the ocean floor.*



*Image: NOAA*

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### *Phytoplankton*

Biological productivity within the Monument and surrounding waters is strongly tied to the upwelling of nutrient rich waters that fuels photosynthesis by phytoplankton. Phytoplankton, also known as microalgae, are the base of the ocean food chain. They are similar to terrestrial plants in that they contain chlorophyll and require sunlight in order to live and grow. Most phytoplankton are buoyant and float in the upper part of the ocean, where sunlight penetrates the water. In a balanced ecosystem, phytoplankton provide food for a wide range of sea creatures including zooplankton (microscopic animals including krill, sea snails, and pelagic worms), shrimp, and jellyfish, which in turn are food for species higher up on the food chain. The high abundance of phytoplankton in the Monument allows this ecosystem to support a high diversity and abundance of organisms, including many top predators.

The amount of photosynthesis (referred to as primary production) occurring along the northeast U.S. continental shelf, including Georges Bank, is very high compared to many other areas of the ocean. While primary productivity within Georges Bank is high, phytoplankton blooms are extremely seasonal, with peak events occurring from late winter through early spring (Townsend and Thomas, 2002; Wiebe *et al.*, 2002).

Compared to the extremely high primary productivity of the shelf and the shelfbreak front, slope waters are typically much less productive because the deeper waters tend to be more stratified or separated. However, in the Monument the rugged topography associated with the canyons and

seamounts creates upwellings that bring these deep nutrient rich waters up, leading to higher productivity in slope waters (Hickey, 1995).

Primary productivity in the deeper waters of the Monument that are not adjacent to the rugged topography of the seamounts or canyons is generally fairly low because of the strongly stratified waters that occur (Lozier *et al.*, 2011).

### *Marine Invertebrates*

Invertebrates are organisms that do not have an internal vertebral (spinal) column. Some marine invertebrates, such as lobsters or clams, form a hard exoskeleton or shell. There are many types of marine invertebrates in the Monument, including lobsters, crabs, shrimp, krill, mussels, oysters, clams, anemones, worms, octopus, squid, sponges, jellyfish, corals, sea urchins, seastars, and countless others. There are several species of invertebrates in the Monument that are commercially important, including longfin squid, American lobster, and Atlantic deep-sea red crab. A study in the Monument found a greater abundance of marine invertebrates (specifically, sponges, corals, sea urchins, and seastars) in the canyons, but a greater number of different species (referred to as species richness) of marine invertebrates present in the seamounts (Mello-Rafter *et al.*, 2021).

Marine invertebrates live in all layers of the ocean and play important roles in ecosystem processes in the Monument and throughout the ocean, many of which are just beginning to be understood. In the Monument, large swarms of krill have been observed during the daytime at the heads of the canyons at depths of 300 – 400 meters (984 – 1312 feet, Auster *et al.*, 2020). These swarms hover about 50 meters (164 feet) off the seafloor and then rise toward the surface at night, providing food for fish, squid, and marine mammals. Lobsters and other invertebrate “builders,” burrow and shape the sediments along the canyon and seamount walls, changing the topography on a small scale that creates habitats for other organisms.

There are also unique deep-sea invertebrate communities in the Monument called chemosynthetic communities, comprised of tubeworms, oysters and mussels that use special bacteria to help them feed on dissolved gases (methane and hydrogen sulfide) released from cold seeps in the seafloor.

### *Deep-Sea Corals and Sponges*

Deep-sea corals and sponges are perhaps the Monument’s most well-known and charismatic invertebrates. The Monument is exceptional for its diversity and abundance of deep-sea corals (also known as cold-water corals), which scientists are still in the beginning phases of discovering and documenting in this area.

Deep-sea corals grow in deep (defined as greater than 50 meters or 164 feet), cold water, where there is no sunlight. Unlike tropical corals that contain photosynthetic algae to meet their energy needs and facilitate their growth, deep-sea corals lack this assistance. Because they live in the deep ocean, they are very long-lived, sometimes for hundreds or even thousands of years, and are very slow to recover from damage. They can occur as small, solitary individuals (for example, stony cup corals, consisting of one solitary polyp) or as structure-forming corals that provide vertical structure above the seafloor that can be utilized by other species. The latter includes both branching corals that together form a structural framework (for example, “reefs” of the

stony coral *Lophelia pertusa*), as well as individual branching coral colonies (for example, soft corals like sea fans).

The deep-sea coral habitats within the Monument have many co-occurring species, including sponges and anemones, which together form the foundation of deep-sea ecosystems. These ecosystems provide food, shelter from predators, breeding, spawning, and nursery habitat for a number of different organisms. Between 2003 and 2014 during *Okeanos Explorer* ROV deep-sea dives conducted by NOAA, at least 58 species of coral were identified in the Monument, including several newly discovered species.

*An overview of deep sea coral and sponge communities in the northeast U.S., including the Monument, is provided in NOAA's State of Deep-Sea Coral and Sponge Ecosystems of the Northeast United States (Packer et al., 2017), which is found on pages 237 to 297 of the larger report, The State of Deep-Sea Coral and Sponge Ecosystems of the United States. NOAA's Deep Sea Coral Research and Technology Program is returning to the Northeast again to expand the baseline understanding of coral and sponge habitats in the Monument and surrounding deep-sea ecosystems from 2023-2026.*

#### *Fishes*

The varied habitats and strong, complex currents in the Monument support significant and diverse concentrations of fish species. Some species of fish in the Monument live near or at the deep-sea floor and spend part or all their lives there. Mesopelagic (mid-water) fish, including lanternfish and anglerfish, are those that inhabit the twilight zone; and they are the most abundant group of vertebrate animals on the planet. These fish tend to feed near the surface at night and move deeper during the daytime to avoid being preyed upon by birds. They play a significant role in the transport of carbon from surface waters into the deep sea (Auster *et al.*, 2020). Other groups of fish live and spend much of their time in the upper (epipelagic) layer of the ocean, closer to the surface.

The unique topography created by the New England Seamount Chain has led to even greater fish species diversity in the Monument. Scientists have noted that at least 17 fish species appear to have arrived at Bear Seamount by using the New England Seamount Chain as a dispersal corridor or “stepping stones” from the eastern Atlantic. Expeditions to Bear Seamount between 2003 and 2006 revealed several species of deep-sea fish that were new to science, and several more that are rare in the northwest Atlantic, normally only known to inhabit the eastern Atlantic (Hartel *et al.*, 2008; Kelley *et al.*, 2010).

There are two species of fish listed as threatened under the Endangered Species Act that are found in or migrate through the Monument: the giant manta ray and the oceanic whitetip shark. The giant manta ray is the world's largest ray with a wingspan of up to 9 meters or 30 feet. They are filter feeders and eat large quantities of zooplankton. Giant manta rays are slow-growing, migratory animals with small, highly fragmented populations that are sparsely distributed across the world. The main threat to the giant manta ray is commercial fishing, with the species both targeted and caught as bycatch in a number of global fisheries throughout its range. Manta rays are particularly valued for their gill rakers, which are traded internationally.

Oceanic whitetip sharks are large, pelagic sharks found in tropical and subtropical oceans throughout the world. They live offshore in deep water but spend most of their time in the upper

part of the water column near the surface. The main threat to oceanic whitetip sharks is bycatch in commercial fisheries combined with demand for its fins. They are frequently caught in pelagic longline, purse seine, and gillnet fisheries worldwide and their fins are highly valued in the international trade for shark products. As a result, their populations have declined throughout its global range.

There are four groups of highly migratory species (tunas, swordfish, billfishes, and sharks) in the Monument that migrate widely through the Atlantic and are managed both at the international and domestic scale under NOAA Fisheries' Atlantic Highly Migratory Species Management Division of the Office of Sustainable Fisheries.

The Monument supports populations of multiple commercially important fish species. Extensive fish species inventory, monitoring, and research efforts have occurred on Georges Bank since the early 1900s and thus more is known about fish communities in the Georges Bank portion of the Canyons Unit than in the deeper parts of the Monument. Located in the northeast corner of the Canyons Unit, the Georges Bank portion, which is only a small fraction of the Monument, is especially important to groundfish species because of the shallower waters and fine-grained composition of the benthic substrate that provide ideal habitat. A 2003 study identified 591 fish species in waters shallower than 200 meters in the New England shelf region (Moore *et al.*, 2003).

#### *Sea Turtles*

Four species of sea turtles may occur in the Monument (foraging and/or migrating through): leatherback, loggerhead, Kemp's ridley, and green sea turtles. Depending on life stage, sea turtles may occupy differing parts of the marine ecosystem. In general, for juvenile and adult life stages, leatherback turtles are most likely to occur in the area of the Monument, followed by loggerhead turtles. Kemp's ridley and green sea turtles, which occur primarily in nearshore, coastal continental shelf waters, have a lower likelihood of occurring in the Monument.

In the Greater Atlantic Region, the leatherback and Kemp's ridley sea turtles are listed as endangered under the Endangered Species Act. The loggerhead sea turtle (the Northwest Atlantic Ocean distinct population segment) and the green sea turtle (North Atlantic Ocean Distinct population segment) are listed as threatened under the Endangered Species Act.

These species tend to follow the Gulf Stream as they look for food during their long migrations. They primarily occupy the Monument from summer through fall, before migrating south (Mansfield *et al.*, 2009). The leatherback sea turtle is an incredible diver and has been known to dive to depths up to 4,000 feet in search of its principal food item, jellyfish (Heaslip *et al.*, 2012). Although researchers know that these sea turtle species use Monument waters, there has been very little research done on them in this area. Because of this, it is difficult to estimate abundances or determine habitat associations.

The primary threats to sea turtles within the Monument include interactions with recreational fishing gear, vessel collisions, and marine debris resulting in entanglement or ingestion (Nelms *et al.*, 2016). Exposure to underwater anthropogenic (human-caused) noise from ship-based acoustic surveys of the Monument could also be a potential threat, depending upon the frequency of exposure and decibel levels used. In addition to sea turtles migrating long distances along the

U.S. coast, they also rely on terrestrial environments to complete their life history stages. The stressors that this taxonomic group experiences while on land and along the coast have an additive effect to the stressors experienced while in the deep-sea marine environment (Nelms *et al.*, 2016).

### *Seabirds*

The Monument is home to a diversity of pelagic seabirds, some of which never come even close to the shore of the mainland United States. Seabirds are one of the most threatened bird taxa in the world and are experiencing population declines in the Atlantic.

Marine birds are known to concentrate in upwelling areas of the Monument. These areas have high productivity and subsequent food availability, resulting in large concentrations of birds. Several species of gulls, shearwaters, storm petrels, gannets, skuas, and terns, among others, regularly occur in the Monument in large aggregations. Researchers have recently discovered that Atlantic puffins are overwintering in the Monument (Baran *et al.* 2022) because of the abundant food availability in the area. Prior to 2015, no one knew where these birds spent their winter months (Bryce, 2016).

A recent tracking study showed that the federally endangered Bermuda petrel, or cahow, is likely entering the Monument on foraging trips - over 500 miles from its nesting habitat in Bermuda (Raine *et al.*, 2021). The Brookline Bird Club spotted a Bermuda petrel in the vicinity of Oceanographer Canyon in 2019. No critical habitat for the Bermuda petrel (cahow) has been identified in the Monument.

Another recent tracking study found that the black-capped petrel, which nests in the Caribbean and is proposed to be listed as threatened with a 4(d) rule under the Endangered Species Act, also uses the Monument (Satgé *et al.*, 2022).

Although a variety of pelagic seabirds have been documented within the Monument, difficult sampling conditions and lack of accessibility have prevented an extensive species list from being completed. Seabird abundance modeling can provide an idea of where seabird species are more or less likely to be abundant in the Monument (Fig. 12).





Figure 12 Map showing estimated offshore/pelagic seabird abundance in and around the Monument. The areas with hatch marks do not have survey data. (Northeast Ocean Data Portal)

### Marine Mammals

The Monument is exceptional for its diversity and abundance of marine mammals (Fig. 13), including the endangered North Atlantic right whale, sperm whale, sei whale, blue whale, and fin whale. The Monument is also home to three species of beaked whales, which are known to be some of the best divers on the planet, with a recorded maximum dive depth for the Cuvier's beaked whale of almost two miles (9,816 feet; Schorr *et al.*, 2014).



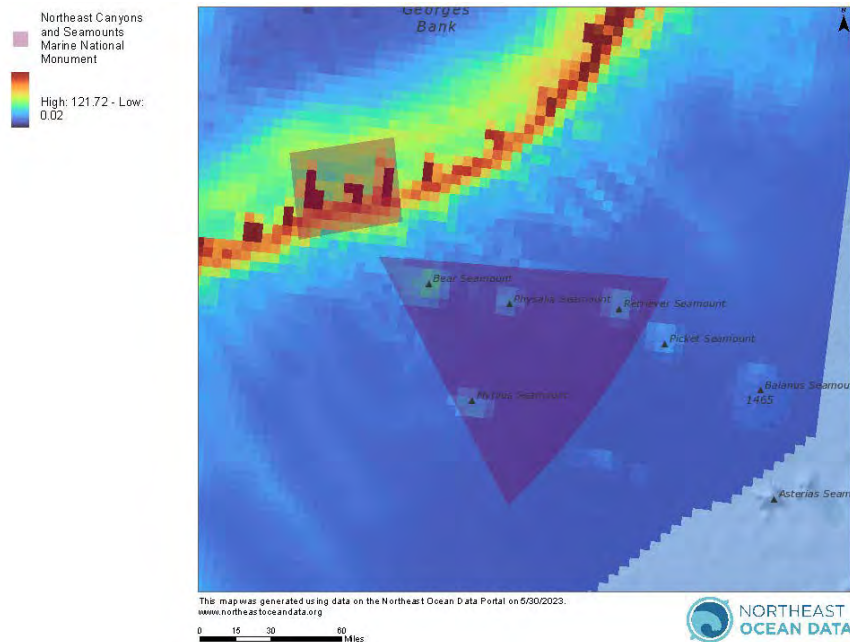


Figure 13 Map showing modeled marine mammal abundance in the Monument (Northeast Ocean Data Portal). High abundance areas are colored in red. The Monument boundary is shaded in dark purple.

Many species of marine mammals are highly migratory, traveling thousands of miles between their winter breeding and calving grounds in warm, lower latitude waters, and their summer feeding grounds in the cooler, high latitude waters. While the migration patterns vary among these species, their use of the Monument as a food source is consistent (New England Aquarium, 2018; NOAA-NFSC, 2018). Aerial surveys conducted in the Monument by the New England Aquarium during the summer months routinely spot hundreds of marine mammals, including beaked whales, sperm whales, fin whales, and dolphins. In an aerial survey conducted in September 2018, researchers saw more than 600 marine mammals in 4 hours within the Canyons Unit of the Monument (New England Aquarium, 2018). In August 2020, New England Aquarium researchers spotted more than 950 animals in the Monument in three hours.

There are multiple stressors that pose harm to this taxonomic group. Research has found that marine mammals are sensitive to many forms of anthropogenic disturbance, including lethal and sub-lethal stressors. Some of the more common types of lethal stressors for marine mammal species include entanglement, boat strikes, and pollutants (Pace *et al.*, 2017). Sub-lethal stressors have also been found to have an impact on the behavior and physiology of individuals, over time impacting the fitness of many marine mammal populations (Ackleh *et al.*, 2017). These stressors include exposure to human-caused noise (for example, shipping traffic) and effects related to climate change. In a study investigating cortisol levels (indicating stress) in a number of baleen whales (fin, humpback and blue whales) spanning the 20<sup>th</sup> century, researchers found that cortisol levels were tightly correlated with historical whaling activity and times of war. Researchers also noted a sharp spike in cortisol levels after the 1990s, believed to be related to rising water temperatures (Trumble *et al.*, 2018).

### *Climate Change*

Climate change affects both the physical environment and the biological environment. Regarding the biological environment in the Monument, it is expected that increasing ocean temperatures are affecting and will continue to affect some species' abundances, distributions, productivity, and phenology (Nye *et al.*, 2009; Dupigny-Giroux, 2018). The warming trend has been associated with many fish and invertebrate species moving northward and to greater depths within the ocean (Pershing *et al.*, 2015) and that is expected to occur in the Monument as well. Sessile organisms like corals are unable to move, and so could be extirpated (removed from a particular area) or go extinct.

It is likely that phytoplankton blooms in the Monument are shifting in location and species composition, potentially resulting in bottom-up changes in food web structure (Barton *et al.*, 2016; Chivers *et al.*, 2017; Pershing *et al.*, 2018). Researchers have also found that warming ocean temperatures have been linked to increased disease incidence and parasite loads in some groups of species (Burge *et al.*, 2014; Maynard *et al.*, 2016); and this could occur or be occurring in the Monument as well.

Marine organisms are particularly sensitive to either direct or indirect effects of ocean acidification. Fundamental physiological processes such as respiration, calcification (shell/skeleton building), photosynthesis, behavior, and reproduction respond to the changes in carbon dioxide concentrations in seawater (Fabry *et al.*, 2008).

Ocean acidification has been shown to directly impact a wide range of marine organisms that build shells from calcium carbonate, including corals, oysters, clams, mussels, snails, and phytoplankton and zooplankton (Doney *et al.*, 2009; Feely *et al.*, 2009). If the pH of the ocean gets too low, shells can begin to dissolve. Shell-building organisms are very important commercially, as habitat, and for the entire ocean food chain. There are growing concerns about increasing acidification in deep-water canyon systems, such as those in the Monument, which could impact slow-growing deep-sea coral and other shell-building invertebrates.

Many calcifying species exhibit reduced calcification and growth rates in laboratory experiments under high dissolved carbon dioxide conditions, whereas some photosynthetic organisms (both calcifying and non-calcifying) have higher carbon fixation rates under high dissolved carbon dioxide conditions (Doney *et al.*, 2009). Additionally, increased ocean acidification has been shown to amplify the negative thermal effects caused by increased temperatures in some marine organisms (for example, larval bivalves) (Talmage and Gobler, 2011). While this general trend in ocean acidification has been seen worldwide, the exact way in which it is affecting Monument taxa and ecosystems is unknown.

There are currently many research programs around the world investigating ocean acidification. However, survey efforts vary spatially, with many of these efforts occurring along the coast and closer to reef and estuarine systems. More recently, research efforts have begun to focus on the effects of ocean acidification on deep-sea corals and their ecosystems.

### *Light and Soundscape*

Many marine species, including marine mammals, turtles, fish, and invertebrates, rely on their ability to hear for their survival. In an underwater environment, sound is often the most efficient

means of communication and is the primary way that many marine organisms gather and understand information about their environment. Many marine species use sound to find prey, locate mates and offspring, avoid predators, guide their navigation, and locate crucial habitat, and listen and communicate with each other (NOAA, 2018).

Changes in the physical, acoustic environment in the ocean can have implications for many marine species. In the last century, human activities in oceans have increased, and with those increases has come increased underwater noise. Sources of underwater noise in the Monument include vessel traffic and sonar used in research activities. Noise from these activities can travel long distances underwater, leading to increases and changes in ocean noise levels (NOAA, 2018).

Higher noise levels can reduce the ability of animals to communicate with potential mates, other group members, their offspring, or feeding partners. Noise can also reduce a marine animal's ability to hear environmental cues that are vital for survival, including those key to avoiding predators, finding food, and navigating to preferred habitats (NOAA, 2018). Most research investigating the effects of human-caused ocean noise on marine organisms has focused largely on marine mammals and fishes (Williams *et al.*, 2015).

There have been several studies showing conclusive evidence that high-frequency and mid-frequency multibeam sonars are the most harmful acoustic noises to marine organisms, causing numerous mass mortality and stranding events for some species of marine mammals with sensitive hearing (Harris, 2017). However, low-frequency sonars can also have a significant effect on marine mammal behavior. Responses of marine mammals to these devices have been documented and include sound source avoidance and changes in sound production patterns (Lurton and DeRuiter, 2011).

There has also been substantial research conducted looking into the effects of ocean noise produced by shipping vessels. Shipping is probably the main overall source of human-made noise in the marine environment, contributing to the 15-decibel increase in ambient noise levels in the ocean since 1950 (Soto *et al.*, 2006). One of the biggest effects of noise produced by shipping activity is auditory masking, which occurs when interference from outside noises “masks” the ability of an individual to detect a particular noise it wishes to perceive.

#### *Non-native, Invasive Species*

Non-native, invasive marine species can be transported long distances by ships and can spread after being introduced in a new location. A study conducted on Georges Bank found that an invasive colonial tunicate (*Didemnum vexillum*) is currently undergoing a massive population and range expansion in the Northeast and may pose a threat to deep-sea coral and sponge communities. The invasive sea squirt is found on hard substrates, and its explosive growth smothers immobile or slow-moving organisms, such as Atlantic sea scallops. Scientists believe that the species could contaminate new areas by inadvertent transportation on a ship hull, by the use of contaminated fishing gear (mobile or fixed), or by the washing of contaminated boat decks (Kaplan *et al.*, 2017).

There are a few reasons why these non-native species are able to outcompete native species, altering marine ecosystems. Because many invasive species are fast-growing and responsive to resources, they may be able to outcompete native species (Occhipinti-Ambrogi and Galil, 2010).

Additionally, in a study conducted by Sorte *et al.* (2010), researchers found that climate change will have a disproportionately negative impact on native species because introduced species tolerated significantly higher temperatures than native ones.

As a result of increased physiological stress associated with climate change, native species may experience decreased growth, decreased fitness, and increased susceptibility to pathogens. Additionally, researchers have also noted that a number of marine pathogens have experienced range expansions due to climate change. Because native species have not evolved with these invasive pathogens, their populations are more susceptible to disease.

#### *Marine debris*

In addition to being part of the Monument's physical environment, marine debris is also part of the Monument's biological environment, as marine debris frequently becomes part of the marine ecosystem food chain.

In a recent study conducted in the Northwest Atlantic Ocean, researchers concluded that microplastics were found in nearly three out of every four mesopelagic fish caught – one of the highest levels globally (Wieczorek *et al.*, 2018). These microplastics can cause significant issues for marine organisms that ingest them, including inflammation, reduced feeding, and subsequent weight loss. An additional concern is that mesopelagic fish, which migrate vertically within the water column during the day, could spread microplastic pollution throughout the marine ecosystem, by carrying microplastics from the surface down to deeper waters, affecting deep-sea organisms (Wieczorek *et al.*, 2018).

Plastic marine debris can release chemicals after prolonged exposure with sunlight, which are harmful to the endocrine system of a large number of marine organisms (Rochman *et al.*, 2014). Floating plastics also provide substrate for the transport of sessile non-native organisms (Moret-Ferguson *et al.*, 2010). There is currently little information covering the impacts of marine debris specifically on species and ecosystem functioning in the Monument.

#### Effects to the Biological Environment

Overall, there are no significant adverse impacts (direct, indirect, or cumulative) to the Monument's biological environment expected to occur as a result of any of the three proposed alternatives. There are multiple beneficial effects anticipated from all three proposed alternatives to varying degrees. The anticipated effects related to each of the Monument activity categories are described briefly below.

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#### *EFFECTS SUMMARY:*

*No significant adverse effects to the biological environment anticipated under the three proposed management plan alternatives.*

*Beneficial effects to the biological environment anticipated under all three alternatives.*

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#### **Management and Program Activities**

**Onshore routine office and management activities, onshore educational and outreach activities, onshore research activities**

These activities do not involve travel to or work in the Monument and there are no anticipated direct adverse effects to the Monument's biological environment from these activities.

Indirect adverse effects to the biological environment are expected due to increases in car travel and public transportation travel (air, train, bus, and subway) expected as the Monument staff grows and implements the management plan. This increased travel will result in air emissions that will have an adverse effect on climate change; and climate change is causing adverse effects to many species in the Monument. Given the Monument's small staff, the adverse climate change effects are not expected to be significant. To mitigate these adverse effects Monument staff will:

- Use virtual meeting platforms when possible, particularly when the relationships between participants are well-established;
- Prioritize carpooling and using government electric vehicles when available;
- Avoid air travel when feasible.

The Monument anticipates a variety of direct, indirect, cumulative, and long-term beneficial effects to the Monument biological environment as a result of these activities. These beneficial effects include,

- An increase in awareness of marine species and changes in everyday behaviors that benefit the marine species as a result of engagement and education activities;
- Improved partnerships and coordination that lead to more effective Monument management and stewardship of marine species.

Of the three proposed alternatives, the no action alternative, which provides the least direction and guidance for Monument programs, is anticipated to have the least beneficial effect.

Alternative 2 (Chapter 1 draft management plan and proposed permitting system) is anticipated to have the greatest beneficial effects because it will focus staff time on building a community stewardship program and utilizing volunteer stewards to share observations of marine mammals, seabirds, sea turtles, and fish in the Monument.

Alternative 3 (Chapter 1 draft management plan with a requirement for a joint-agency permit for all public access to the Monument) is anticipated to have less of a beneficial effect on the biological environment than the preferred Alternative 2. This is because, under this proposed alternative, staff time would be more heavily focused on issuing and trying to ensure compliance with permitting requirements than on partnership-building and community stewardship.

Over the long-term, a community stewardship program is expected to result in more ocean-friendly behavior changes and more volunteer stewards caring for the Monument. Requiring an access permit could have beneficial effects by discouraging some recreational use of the Monument and by assisting the Monument management team with tracking use of the Monument. But the Monument management team's ability to ensure compliance with an access permit program is uncertain, which could make the information gathered from the permitting program less useful.

### **Onsite field research activities**



*The effects of routine research activities on the physical, biological, cultural, historical and socioeconomic environment have already been evaluated in accordance with NEPA in detail in NOAA's Final Programmatic Environmental Impact Statement (PEIS) for Surveying and Mapping Projects in U.S. Waters for Coastal and Marine Data Acquisition. This PEIS encompasses the Greater Atlantic Region out to the U.S. Exclusive Economic Zone, which includes the Monument, and evaluates the direct, indirect, and cumulative effects on the biological environment (including invertebrates, fish, sea turtles, seabirds, and marine mammals) of all the routine surveying and mapping work that is expected to take place in the Monument. It also discusses mitigation measures commonly taken to address adverse impacts to marine species. None of the activities that would take place under any of the three management plan alternatives for the Monument would be anticipated to have significant adverse effects to biological resources.*

*Additionally, NOAA's Marine Mammal Stranding and Health Program PEIS evaluates the effects of routine marine mammal health studies on the physical, biological, cultural, historic and socioeconomic environment. This PEIS describes and evaluates in detail the common types of marine mammal health studies that might be conducted in the Monument and describes the mitigation measures that can be taken to mitigate any potentially significant effects to marine species, in particular the marine mammals being studied. As a result, no significant effects to any biological resources in the Monument are expected due to these activities.*

There are a variety of short and long-term, and direct and indirect adverse effects anticipated to the biological environment as a result of the research activities proposed to occur in the Monument, which are covered in the above-mentioned PEISs. These insignificant adverse effects can include injuries from vessel strikes, stress from physical biomonitoring procedures, injuries and/or mortality from collection of biological specimens, stress, and disorientation from light, and sound disturbance from vessels, planes, and drones.

Additionally, air emissions from research vessels that rely on fossil fuels are expected to contribute to climate change and some incidental spills of small amounts of waste are anticipated, both of which indirectly affect marine species by degrading habitat. There is always a risk that vessel traffic of any kind in the marine environment could result in the accidental introduction of non-native invasive species, but there are many vessel management strategies in place to reduce the risk of this occurring. These adverse effects are not expected to be significant, especially at the scale and frequency they will occur in the Monument (one to five research trips per year). Regular anchors are prohibited in the Monument, so injury to organisms living on the seafloor is not expected.

To mitigate adverse effects, the Monument management team will distribute guidance to all researchers on best practices for avoiding impacts to Monument species. Research projects may require individual consultations under the Endangered Species Act, Magnuson-Stevens Fishery Management and Conservation Act, Marine Mammal Protection Act, and other laws prior to implementation.

Overall, the Monument management team anticipates that there will be long-term, indirect, direct, and cumulative beneficial effects to the Monument's biological environment from the proposed onsite field research activities in the Monument. Increased understanding of marine species will inform management decisions of these species, including commercially important

species. The visual products that result from onsite research activities, including underwater photography and films of marine species and habitats, will also help to connect people to species, inspire a greater sense of stewardship, and inspire ocean-positive behavior changes. These beneficial effects are anticipated under all three alternatives because research would occur in the Monument regardless of whether a management plan is adopted.

### **Onsite marine debris and ALDFG mechanical removal**

*NOAA evaluated the impacts of marine debris research, assessment, prevention, reduction, and removal activities throughout the U.S. in its [Programmatic Environmental Assessment for the NOAA Marine Debris Program](#). This programmatic NEPA evaluation considers the full range of marine debris activities that may be implemented in the Monument and concludes that there are no significant adverse effects (direct, indirect, or cumulative) to the biological environment from these activities.*

It is uncertain the extent to which marine debris or ALDFG mechanical removal will be necessary in the Monument because the scale of these debris issues is not yet understood. Under the proposed management plan Alternatives 2 and 3, several activities would be implemented to assess and characterize impacts from marine debris and ALDFG in the Monument and determine whether removal is appropriate in all or some cases. This could lead to marine debris and ALDFG removal activities under either of these two alternatives.

Marine debris and ALDFG removal activities would only be undertaken in the Monument if there was a clear benefit to the biological environment. Should removal of marine debris and ALDFG cause significant damage to deep-sea corals, some of which are thousands of years old, the Monument management team would opt not to remove gear and would instead look to other strategies, such as deep-sea coral restoration, to improve deep-sea coral habitat in the Monument.

### **Restoration of deep-sea corals**

There are no significant adverse effects to the biological environment from deep-sea coral restoration efforts other than those already described for onsite research. The vessels and underwater vehicles typically used in research activities would be utilized for restoration activities. Small samples of deep-sea corals, which would not cause significant injury, would be used to culture and grow these animals in a laboratory.

### **Onsite routine enforcement and compliance activities**

Routine enforcement and compliance activities related to the Monument onsite and onshore will have an overall beneficial effect to the biological environment because they will help to ensure compliance with the Monument's rules and regulations (which are highly protective of the physical environment).

There are no significant direct, indirect, or cumulative adverse effects to the Monument's biological environment anticipated from the onsite routine enforcement and compliance activities that would occur under any of the three proposed alternatives.

Regular anchors are prohibited in the Monument, so seafloor disturbance from anchoring is not expected. There are insignificant indirect adverse effects to biological resources expected as a result of air emissions for these activities under all three alternatives. The establishment of the Monument and its accompanying prohibitions on multiple uses created a need for greater



compliance and enforcement activities in the area. This will likely result in more vessel trips and flyovers under all three alternatives. Increases in the number of vessel trips could also lead to more acoustic and light disturbance in the Monument, as well as potential vessel strikes of seabirds, marine mammals and turtles. To mitigate adverse effects, the Monument management team will distribute guidance to enforcement agencies on best practices for avoiding impacts to species that might be in the Monument.

It is difficult to know how many additional trips to the Monument might occur under the three alternatives. However, Alternative 3 proposes an additional permitting requirement for all access to the Monument, which could lead to more enforcement vessel trips than the other two alternatives.

To mitigate the adverse climate change effects associated with increased law enforcement activities, the Chapter 1 draft management plan proposes to utilize to the greatest extent possible remote tracking technologies that do not require an onsite presence in the Monument to track compliance with Monument rules and regulations.

## **Use Activities**

### **Onsite non-fishing recreational and visitor activities; onsite photography and filming (for personal use); onsite education activities**

The Monument management team anticipates an overall beneficial effect to the biological environment from these passive recreational and educational activities. The National Wildlife Refuge Administration Act identifies wildlife observation, photography, education, and interpretation activities as priority public uses on wildlife refuges because these activities connect people to nature and foster a sense of stewardship and conservation in participants. Under Alternatives 2 and 3, there are activities focused on identifying potential volunteer stewards in the recreational community to gain their assistance in gathering information and species observations in the Monument.

There are no significant adverse effects (direct, indirect, or cumulative) to the biological environment as a result of these activities, which would occur under all three alternatives. There are expected insignificant indirect adverse effects to marine species as a result of air emissions from recreational vessels that run on fossil fuels, as well as potential seabird and sea turtle vessel strikes (the risk of marine mammal vessel strikes is negligible so long as appropriate distances are maintained), and acoustic and light disturbance from vessels and incidental discharges. To mitigate potential adverse effects, the draft management plan activities focused on developing fact sheets on avoiding seabird vessel strikes, distancing from marine mammals, and best practices for managing vessel lighting to share with those recreating and conducting education programs in the Monument.

While the Monument will continue to provide onsite recreational opportunities for visitors, activities in the draft management plan under both Alternatives 2 and 3 will lead to the development of virtual visitor experiences that will not have the same climate footprint as a trip out to the Monument would.

Given the distance of the Monument from shore, an overnight trip is required in most cases to visit and recreate in the Monument. As a result, the intensity of recreational activity is not expected to be high under any alternative, particularly relative to other locations in the vicinity. Hydrographer Canyon, for example, which is just south of the Monument and quicker to access from some marinas, appears to receive more visitation than the Monument canyons, as do other portions of Georges Bank.

Under Alternatives 2 and 3, the Monument management team will be exploring remote methods of analyzing vessel presence in the Monument to better understand recreational use of the Monument. Should recreational and educational activities such as whale and bird watching, diving, or pleasure boating dramatically increase in the coming years, the Monument management team would reevaluate the effects of these passive recreational activities.

Alternative 2 (preferred) would allow these visitor activities to occur in the Monument without a joint-agency Monument access permit, whereas Alternative 3 would require a joint-agency access permit to enter the Monument. It is possible that the need to apply for a permit under Alternative 3 could discourage some recreational users, resulting in less in-person recreational use of the Monument, but that outcome is uncertain. If there was less recreational use under Alternative 3, the beneficial effects of connecting people with the Monument would be reduced, and the adverse effects related to air emissions, light and sound disturbance, incidental discharges, and accidental vessel strikes would also be reduced.

### **Recreational fishing activities**

*Based on the best professional opinions of NOAA Fisheries' management analysts and informal online review of fishing charter websites in the Northeast, the Monument management team believes that most recreational fishing in the Monument is for highly migratory species and occurs almost solely in the Canyons Unit of the Monument. Almost no recreational fishing activities have been documented in the Seamounts Unit.*

*NOAA Fisheries manages and permits the recreational fishing of many species, including highly migratory fish species in the Atlantic and has evaluated the effects of recreational fishing for these species under its 2006 Final Consolidated Atlantic Highly Migratory Species Fishery Management Plan. The plan and subsequent amendments set recreational catch limits for these highly migratory species, protect their U.S. spawning habitats, and outline how NOAA will engage with the international fishery management community to regulate highly migratory fish.*

*This management plan and its subsequent amendments were developed in accordance with NEPA and include an environmental impact statement that analyzes of the effects of recreational fishing for these species on the physical, biological, cultural, historic, and socioeconomic environment. This NEPA analysis did not identify any significant adverse effects to the biological environment as the result of recreational fishing for these species in the geographic region that includes the Monument.*

*The Mid-Atlantic Fishery Management Council developed and NOAA Fisheries implemented the Tilefish Management Plan, which included an environmental impact statement in accordance with NEPA, and subsequent amendments and policy frameworks. This analysis also does not identify any adverse effects to biological resources as a result of recreational fishing for bluefin or golden tilefish in the geographic area that includes the Monument.*

The Monument management team anticipates insignificant direct adverse effects to the biological environment from recreational fishing activities in the Monument given the potential for vessel strikes to, and/or entanglement/hooking of species in the Monument, including those protected under the Marine Mammal Protection Act and Endangered Species Act. There may also be insignificant adverse effects to the biological environment from lost fishing line and gear, acoustic disturbance and light alteration from vessels, accidental vessel strikes, trash or the accidental discharge of fuel and other substances. Additionally, there will be an adverse effect to climate change from the air emissions associated with vessel trips out to the Monument and back.

Recreational fishing gear typically used to catch highly migratory species, if used correctly, should not typically disturb sensitive deep-sea species such as deep-sea corals. Moreover, recreational fishing gear for other species, such as lobster and crab, that could cause seafloor disturbance is not allowed in the Monument due to the Presidential Proclamation 9496 prohibition on seafloor disturbance. Regular anchors are prohibited in the Monument, so injury to seafloor species from anchoring is not expected.

The Service has developed guidance for mariners in response to seabird vessel strikes and NOAA Fisheries has guidance on safe distances for viewing marine life and safely handling and releasing of sea turtles, giant manta rays, and other protected species should they become hooked/entangled. Under draft management plan Alternatives 2 and 3, the Monument management team plan has proposed distributing these materials to recreational anglers utilizing the Monument.

Even with best management practices in place, vessel strikes involving marine mammals and recreational fishing vessels are possible. However, the adverse effects associated with recreational fishing in the Monument are expected to be insignificant due to the remote nature of the Monument and the planned outreach to the recreational fishing community regarding best practices.

The National Wildlife Refuge Administration Act identifies recreational fishing as a priority public use on wildlife refuges because it connects people to nature and fosters a sense of stewardship and conservation. Recreational anglers play an important role in the conservation of fish and their habitat. The presence of anglers in the Monument is viewed as a long-term benefit. Under Alternatives 2 and 3, there are activities focused on identifying potential volunteer stewards in the recreational fishing community to gain their assistance in gathering information and species observations in the Monument, which could benefit the Monument management team's understanding of biological resources in the Monument over the long-term.

Alternative 2 would allow recreational fishing to occur in the Monument without a joint-agency Monument access permit (applicable NOAA Fisheries recreational fishing permits would be required). Alternative 3 would require a joint-agency access permit (in addition to any required NOAA Fisheries recreational fishing permits) to fish recreationally in the Monument.

It is possible that the need to apply for the additional access permit under Alternative 3 could discourage some recreational anglers, resulting in less in-person recreational fishing in the Monument. But this potential outcome is uncertain. Given its distance from shore, it is assumed that private anglers and boat captains who lead charters out to the Monument have a high level of

interest in and knowledge of the environment and might not be dissuaded by an additional permit that could be obtained on-line. If a reduction in recreational fishing occurred under Alternative 3, the insignificant adverse effects associated with this activity could be reduced – but so also would the beneficial effects of recreational fishing.

#### **Onsite photography and filming (for other than personal use)**

Onsite photography and filming (for other than personal use), which can occur in the Monument with appropriate permissions, stipulations and approvals under the Marine Mammal Protection Act and the National Wildlife Refuge Administration Act and Recreation Act, is not expected to have any significant adverse effects to the biological environment (indirect, direct, or cumulative).

There will be insignificant, indirect adverse effects to the biological environment as a result of air emissions and light and acoustic disturbance associated with vessel trips out to the Monument, vessel strikes, and accidental vessel discharges. To mitigate potential adverse effects, the draft management plan activities focused on developing fact sheets on avoiding seabird, marine mammal, and sea turtle vessel strikes, distancing from marine mammals, and best practices for managing vessel lighting to share with those filming and photographing in the Monument.

This activity occurs infrequently in the Monument and there is not an expected difference in the frequency of these activities (or associated insignificant adverse effects) under the different alternatives.

Depending upon the nature of individual filming and photography projects, there may be a strong beneficial effect to the biological environment. For example, documentaries that teach people about the Monument's species and habitats and show the public awe-inspiring footage of the Monument may help to connect the wider public with the Monument and inspire a sense of stewardship for the Monument's species and habitats.

#### **Onsite education activities that involve fishing**

Onsite educational trips that involve fishing activities (such as plankton tows) are not expected to have any significant adverse effects to the biological environment. The species typically sampled in educational programs are not high-risk or listed as endangered or threatened; and educational sampling does not typically involve any species protected under the Endangered Species Act or Marine Mammal Protection Act and tends to be done on a small-scale, resulting in mortality rates that are not significant. Regular anchors are prohibited in the Monument, therefore seafloor disturbance to coral or other stationary species from anchoring is not expected. Seafloor disturbance (with a few exceptions for anchoring of scientific instruments and submarine cable installation and maintenance) is prohibited in the Monument, therefore bottom-disturbing fishing gear would not be allowed even for educational purposes in the Monument.

There could be direct and indirect insignificant adverse effects related to air emissions, light and acoustic disturbance, accidental vessel strikes, and incidental vessel discharges associated with vessel trips out to the Monument and back that are similar to those already described for research activities. These effects are not expected to be significant given the infrequency of educational trips out to the Monument (likely not more than one to three each year). Additionally, to mitigate potential adverse effects, the draft management plan activities focus on developing fact sheets on

avoiding seabird, marine mammal, and sea turtle vessel strikes, distancing from marine mammals, and best practices for managing vessel lighting to share with those recreating and conducting education programs in the Monument.

This activity would require a permit under all alternatives, so there is not an expected difference in the frequency of these activities (or associated adverse effects) under the different alternatives.

There are multiple beneficial effects to the biological environment from these activities expected under all three alternatives. Students visiting the Monument may become the marine scientists and managers of tomorrow. In-person experiences will increase their knowledge and understanding of the offshore marine ecosystems, inspire them, and foster a sense of shared stewardship.

### Socioeconomic Environment

According to the 2022 U.S. census, there are 34,674,377 people living in the region near the Monument, which encompasses Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, and New York. This population represents 10.5% of the total U.S. population.

#### *Communities with environmental justice concerns*

There are many communities with environmental justice concerns in the Monument's onshore affected environment; and millions of people live in these communities.

Among the top commercial fishing communities in 2023 in the Monument's region, NOAA Fisheries identified two communities with significant environmental justice concerns: Boston, Massachusetts and New Bedford, Massachusetts. NOAA Fisheries did not identify any recreational fishing communities with significant environmental justice concerns in the Monument's region (Lucey et al., 2023 and Northeast Fisheries Science Center, 2023).

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*Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental law, regulations and policy. - EPA*

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Environmental justice concerns systemically impact communities of color, low-income communities, and Indigenous communities. Communities with environmental justice concerns experience disproportionate and adverse human health or environmental burdens.

These burdens arise from a number of causes, including inequitable access to clean water, clean air, natural places, and resources for other basic human health and environmental needs; the concentration of pollution, hazardous waste, and toxic exposures; and underinvestment in affordable housing that is safe and healthy and in basic infrastructure and services to support such housing, including safe drinking water and effective sewage management.

The cumulative impacts of exposure to those types of burdens and other stressors, including those related to climate change and the environment, further disadvantage communities with environmental justice concerns. People in these communities suffer from poorer health outcomes and have shorter life expectancies than those in other communities in our Nation. Moreover, gaps in environmental and human health data can conceal these harms from public view, and, in doing

so, are themselves a persistent and pernicious driver of environmental injustice (Executive Order 14096, April 21, 2023).

For detailed information on the communities with environmental justice concerns in each State within the Monument's region, please visit the Environmental Protection Agency's (EPA's) [Environmental Justice Screening and Mapping Tool](#). This data visualization mapping tool allows users to explore data related to multiple indicators of environmental justice concerns, including socioeconomics, climate change vulnerability, health disparities, and pollution sources, for individual communities, cities, and counties in the region near the Monument.

### *Tourism*

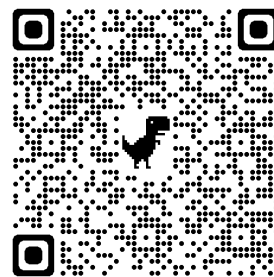
#### *Recreational Fishing*

Recreational fishing trips to “the Canyons” along the North Atlantic continental shelf are a cultural tradition for many anglers in the Northeast. The Monument management team has identified activities in the draft management plan to better understand recreational fishing in the Monument and build connections with the recreational fishing community.

Anecdotal evidence suggests that there are a variety of recreational fishing charter companies that may lead overnight trips out to the Canyons Unit to catch tuna and swordfish; however, it may be that more trips focus on Hydrographer Canyon, which is southwest of the Monument. The Monument management team believes that recreational fishing in the Monument primarily occurs in the Canyons Unit during the summer and fall months when highly migratory species can be found in the Monument following the warm Gulf Stream Current north.

The Monument management team does not believe that there is much recreational fishing occurring in the Seamounts Unit, given its distance from shore, but believes the Seamounts Unit may offer good recreational fishing opportunities to those able to travel there.

NOAA Fisheries manages recreational fishing in the U.S. Exclusive Economic Zone in the North Atlantic under its authorities under the Magnuson-Stevens Fishery Conservation and Management Act and through the New England Fishery Management Council and Mid-Atlantic Fishery Management Council. Recreational catch of highly migratory species is managed on a multi-regional and international scale by NOAA Fisheries' Atlantic Highly Migratory Species Management Division in consultation with the Highly Migratory Species Advisory Panel. There are a variety of permitting and reporting requirements for recreational anglers in the Monument that vary by species, time of year, and type of recreational fishing (private anglers, for-hire charter and party vessels), and more information can be found at, <https://www.fisheries.noaa.gov/new-england-mid-atlantic/recreational-fishing/recreational-fishing-regulations-species>. Recreational fishing regulations may change at any point during the year. Permit holders receive notifications of regulation changes by mail, but anyone can sign up to receive email updates or text alerts regarding changes to recreational fishing regulations.



*QR code for NOAA Fisheries  
Greater Atlantic Recreational  
Fishing website*



### Wildlife watching and pleasure boating

There is some sailing, boating, and wildlife watching that occurs in the Monument, primarily in the Canyons Unit. There are local birding clubs that make one or two overnight trips to the Monument almost every summer to spot rare, highly pelagic seabirds that frequent the shelf break but do not come close to shore. There are also occasional overnight charter whale watching trips that visit the Monument, particularly the Canyons Unit, through which is a known marine mammal migratory route. Looking at a map of pleasure craft sailing vessel transits in the Monument in 2022 (Fig. 14), it appears that there is more boating activity to the southwest of the Monument than in the Monument itself. It is possible that these pleasure craft transits may also involve recreational fishing. It is unclear the extent to which Monument designation will lead to increases in this type of tourism to the Monument.

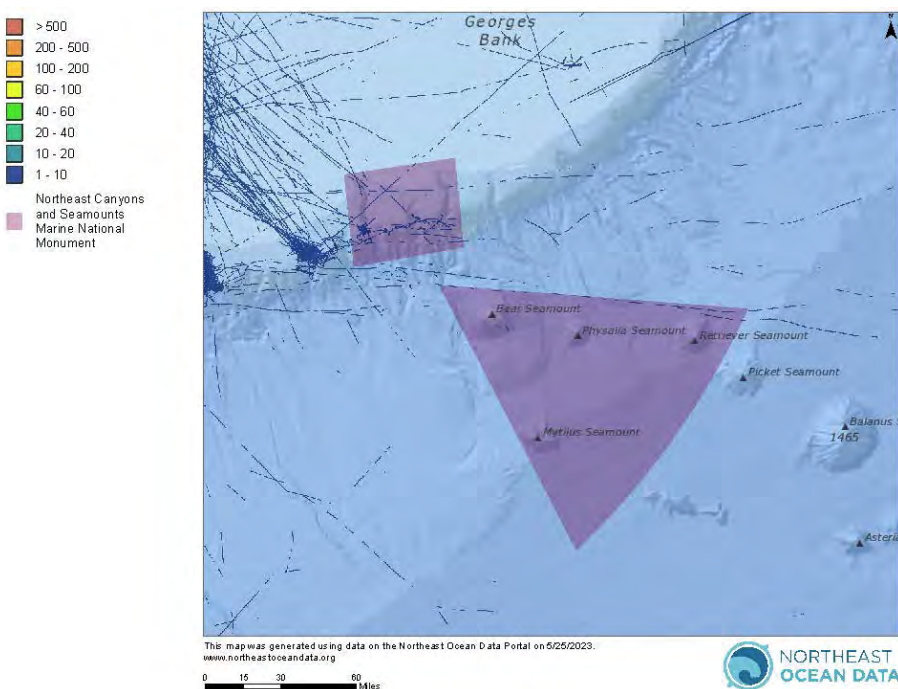


Figure 14 Map from the Northeast Ocean Data portal showing pleasure craft sailing vessel transit counts in and surrounding the Monument in 2022.

### Diving

Informal conversations with divers indicate that there may be a growing interest in blue water diving in the Gulf Stream Current in the Canyons Unit of the Monument during summer months in order to observe marine species. However, it is unclear whether there is any active diving occurring in the Monument at this time. This may be a tourism industry that develops in the future.

### Offshore Wind

Offshore wind development is not permitted in the Monument. However, the offshore wind industry is growing rapidly in the Northeast and there is an active effort, being led by BOEM, to plan for and develop offshore wind energy in the Northeast.

The nearest offshore wind permitted projects, projects in review, and currently approved lease areas are approximately 93 miles west of the Monument in the Nantucket Shoals area.

The Gulf of Maine offshore wind call area was announced in 2023. The southern edge of BOEM's 2023 area of interest for offshore wind development in the Gulf of Maine is approximately 72 miles north of the Monument (Fig. 15).

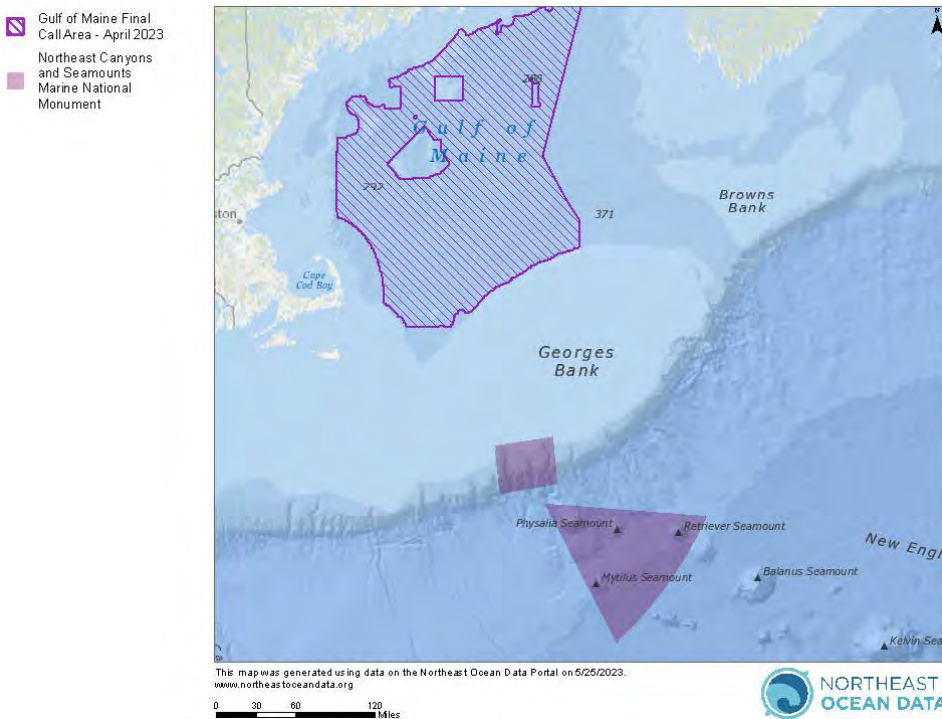


Figure 15 Map from the Northeast Ocean Data portal showing the 2023 Gulf of Maine offshore wind area of interest shaded in purple hatch marks, as well as the Monument, which is shaded in solid purple.

More than 20 offshore wind development projects are proposed for construction on the eastern seaboard, covering more than 1.7 million acres by 2030. An additional six lease areas (488,000 acres) were recently sold in the New York Bight. If all existing and proposed leases are developed in the Northeast, rapid buildout according to current development plans will have greater impact to the Mid-Atlantic region than the New England region, although some lease areas are in waters off Rhode Island and Massachusetts. Floating offshore technologies are likely to be used in the Gulf of Maine in the future, with anticipated lease site designations beginning in 2023 (NOAA Fisheries, 2022).

### Shipping

There is shipping vessel traffic through the Monument (Figs. 16 and 17), but it is of relatively low frequency and intensity relative to surrounding areas. There are no major shipping channels running through the Monument. There are no known navigation challenges or complexities in the Monument that could lead to an elevated risk of a collision or other vessel incident in the Monument. As a result, the USCG believes that the risk of a spill in the Monument is low.

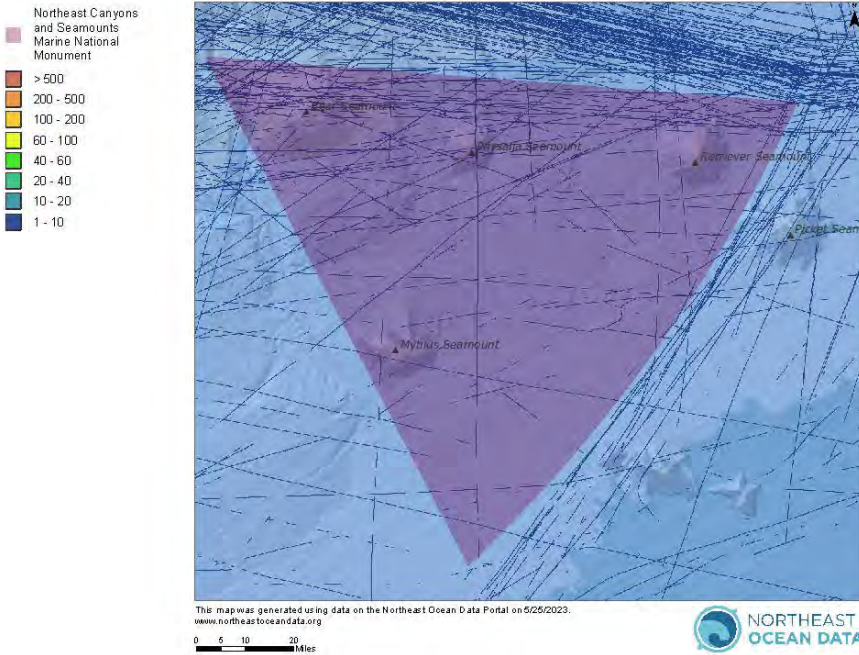


Figure 16 Map showing cargo vessel transit counts through the Seamounts Unit of the Monument during all of 2022 (Northeast Ocean Data portal).

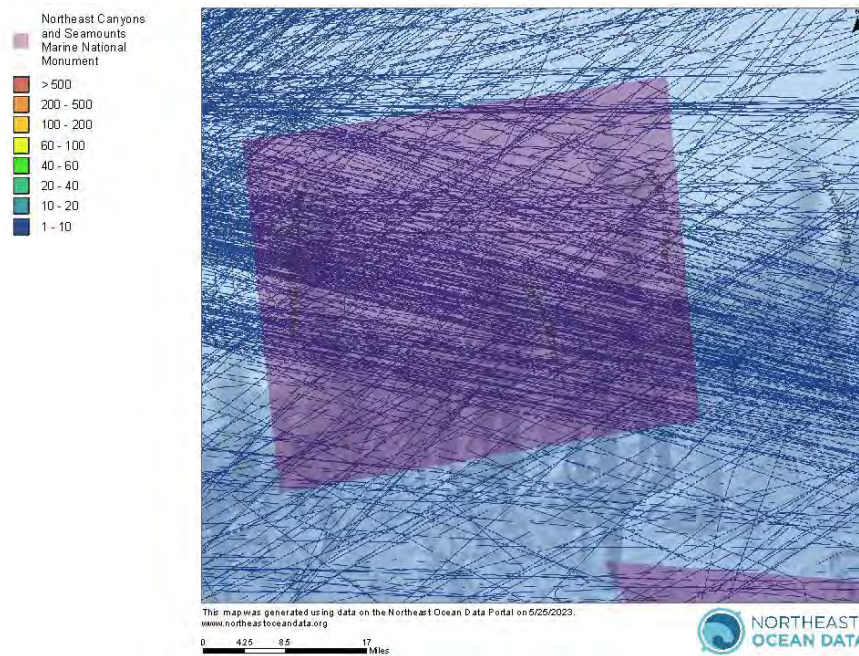


Figure 17 Map from Northeast Ocean Data portal showing cargo vessel transit counts through the Canyons Unit of the Monument during all of 2022.

### Submarine Cables

There are 15 known submarine cables that run through the Monument, all of them in the Seamounts Unit (Fig. 18).



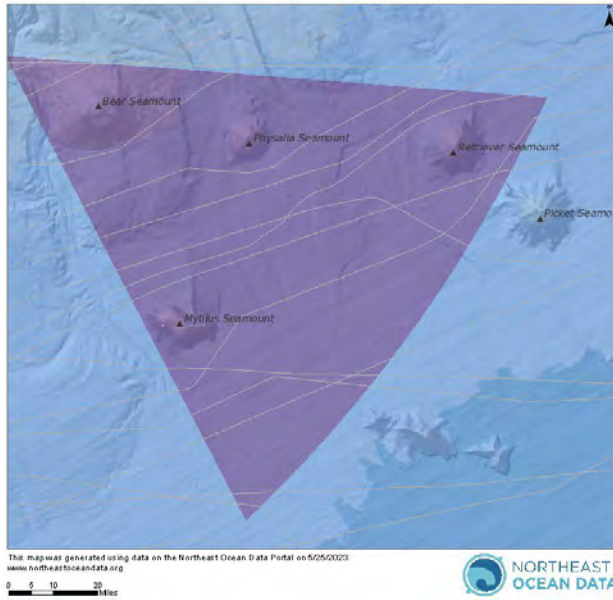


Figure 18 Map showing the 15 submarine cables that cross the Seamounts Unit (Northeast Ocean Data Portal, May 25, 2023).

During public scoping the North American Submarine Cable Association provided information on several active cables that run through or near the Monument, the owners of which are members of its organization (Fig. 19):

- Atlantic Crossing 1 (Segments A and C): connecting Germany, the Netherlands, the United Kingdom, and the United States;
- FLAG Atlantic-1 (North and South): connecting France, the United Kingdom, and the United States;
- Havfrue: connecting Denmark, Ireland, Norway, and the United States.

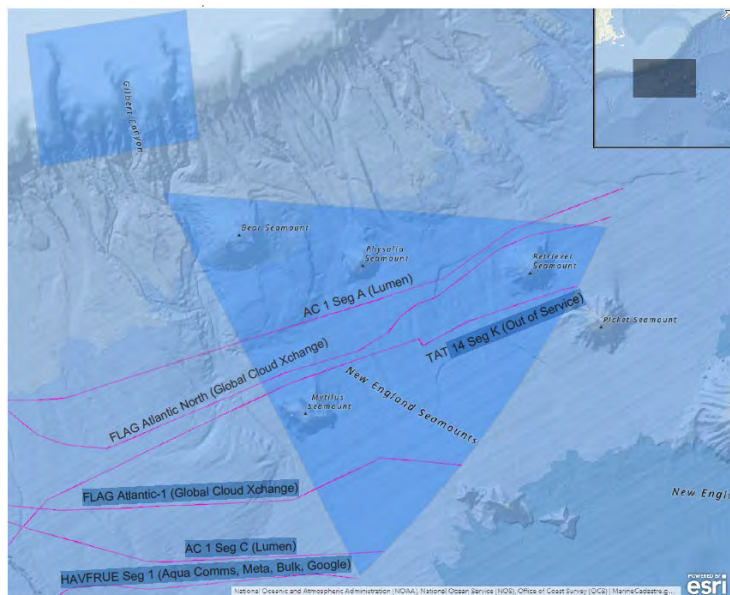


Figure 19 Map provided by the North American Submarine Cable Association showing the locations of undersea cables in and near the Monument owned and operated by members of its organization.

### *Military Activities*

The Monument is not located in any identified Department of Defense training areas. The primary routine activities of both the Navy and the U.S. Air Force in the Monument are anticipated to be transiting and flyovers, respectively.

### *Urban Wildlife Partnership Cities*

The Service has a growing Urban Wildlife Conservation Program that works to expand access to green space, education, and outdoor recreation for Americans living in and around cities. Individual cities can choose to partner with the Service to develop their own Urban Wildlife Partnership program. In the Monument region there are four Urban Wildlife Partnership cities: Yonkers, New York; New Haven, Connecticut; Providence, Rhode Island; and Lowell, Massachusetts.

### Effects to the Socioeconomic Environment

Overall, there are no significant adverse impacts (direct, indirect, or cumulative) to the Monument's socioeconomic environment expected to occur as a result of any of the three proposed alternatives. There may be some indirect beneficial effects to the socioeconomic environment from the proposed alternatives through increased tourism, though this beneficial effect is uncertain, given the Monument's distance from shore.

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#### *EFFECTS SUMMARY:*

*No significant adverse effects to the socioeconomic environment expected under any of the three proposed alternatives.*

*Some potential beneficial effects to the socioeconomic environment under all three alternatives.*

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The Monument does not overlap with any locations proposed for offshore wind, nor does it overlap with military training areas or major shipping lanes. None of the proposed alternatives would alter the current management of recreational fisheries, though Alternative 3 would require those who enter the Monument to fish recreationally to obtain an additional access permit, which could inconvenience anglers. But this permit would be used for tracking purposes, not to restrict access, so any adverse effect is expected to be insignificant. The anticipated effects related to each of the Monument activity categories are described briefly below.

### **Management and Program Activities**

#### **Onshore routine office and management activities, onshore educational and outreach activities, onshore research activities**

There are no expected adverse effects to the socioeconomic environment associated with these activities. It is possible that the education and engagement activities proposed under Alternatives 2 and 3 could have an indirect beneficial effect to the tourism economy of the region. To those anglers, bird watchers, whale watchers, sailors, and boaters who have been going to "the Canyons" for fish and wildlife watching since long before it was called a marine monument, the specialness of this place is well-known. Monument engagement and education programs may increase the awareness of this special place and gain the interest of a wider audience.

However, given the remote location of the Monument and the cost associated with going there overnight, it is anticipated that any increases in tourism would be negligible within the context of the very large marine tourism economy in the Northeast.

### **Onsite field research activities**

*The effects of routine research activities on the physical, biological, cultural, historic and socioeconomic environment have already been evaluated in accordance with NEPA in detail in NOAA's Final Programmatic Environmental Impact Statement (PEIS) for Surveying and Mapping Projects in U.S. Waters for Coastal and Marine Data Acquisition. This PEIS encompasses the Greater Atlantic Region out to the U.S. Exclusive Economic Zone, which includes the Monument, and evaluates the direct, indirect, and cumulative effects on the socioeconomic environment of all of the routine surveying and mapping work that is expected to take place in the Monument. None of the activities proposed under any of the three management plan alternatives for the Monument would be anticipated to have significant adverse effects to the socioeconomic environment.*

*Additionally, NOAA's Marine Mammal Stranding and Health Program PEIS evaluates the effects of routine marine mammal health studies on the physical, biological, cultural, historic, and socioeconomic environment. No significant adverse effects to the socioeconomic environment were identified.*

### **Onsite marine debris and ALDFG mechanical removal**

*NOAA evaluated the impacts of marine debris research, assessment, prevention, reduction and removal activities throughout the United States in its Programmatic Environmental Assessment for the NOAA Marine Debris Program. This programmatic NEPA evaluation considers the full range of marine debris activities that may be implemented in the Monument and concludes that there are no significant adverse effects (direct, indirect, or cumulative) to the socioeconomic environment from these activities.*

### **Restoration of deep-sea corals**

There are no significant adverse effects to the socioeconomic environment anticipated from deep-sea coral restoration efforts.

### **Onsite routine enforcement and compliance activities**

There are no significant adverse effects to the socioeconomic environment from routine enforcement and compliance activities.

## **Use Activities**

### **Onsite non-fishing recreational and visitor activities; onsite photography and filming (for personal use); onsite education activities**

There are no significant adverse effects (direct, indirect, or cumulative) to the socioeconomic environment anticipated as a result of these activities, which would occur under all three alternatives. There could be a small boost to the tourism economy should the Monument become a more popular wildlife watching designation due to the outreach and engagement activities that would occur under Alternatives 2 and 3. However, relative to the size of the marine tourism



economy in the Northeast, any additional economic gain from Monument tourism is likely to be negligible.

Alternative 2 (preferred) would allow these recreational and educational activities to occur in the Monument without a joint-agency Monument access permit, whereas Alternative 3 would require a joint-agency access permit to conduct these recreational activities in the Monument. It is possible that the need to apply for a permit under Alternative 3 could discourage some recreational users, resulting in less in-person recreational use of the Monument and fewer tourism dollars generated.

However, given the estimated small scale of non-fishing recreation in the Monument, any adverse economic effect is likely to be negligible. Additionally, the remote nature of the Monument, which requires an overnight trip that is higher in cost than a day trip, suggests that it will likely be a relatively small, dedicated group of tourist boaters, bird watchers, whale watchers, and divers who visit the Monument on a regular basis. The need to acquire an additional permit, which could be applied for on-line, to enter the Monument is not expected to be a significant deterrent to this group such that it would cause an adverse socioeconomic effect.

### **Recreational fishing activities**

*Based on the best professional opinions of NOAA fishery management analysts and informal online review of fishing charter websites in the Northeast, the Monument management team believes that most recreational fishing in the Monument is for highly migratory species such as tuna and swordfish and occurs almost solely in the Canyons Unit of the Monument. Almost no recreational fishing activities have been documented in the Seamounts Unit.*

*NOAA Fisheries manages and permits the recreational fishing of highly migratory fish species in the Atlantic and has evaluated the effects of recreational fishing for highly migratory species under its Final Consolidated Atlantic Highly Migratory Species Fishery Management Plan. The plan and subsequent amendments set recreational catch limits for these highly migratory species, protect their U.S. spawning habitats, and outline how NOAA Fisheries will engage with the international fishery management community to regulate highly migratory fish.*

*This management plan and its subsequent amendments were developed in accordance with NEPA and the plan includes an environmental impact statement that analyzes the effects of recreational fishing for these species on the physical, biological, cultural, historical, and socioeconomic environment. This NEPA analysis did not identify any significant adverse effects to the socioeconomic environment in the geographic region that includes the Monument as the result of the selected management alternative for recreational fishing for these species.*

*NOAA Fisheries also developed the Tilefish Management Plan, which included an environmental impact statement in accordance with NEPA, and subsequent amendments and policy frameworks. This analysis also does not identify any adverse effects to the socioeconomic environment in the geographic region that includes the Monument as a result of the selected management alternative for recreational fishing for tilefish.*

**There would be no changes to existing NOAA Fisheries recreational fishing permitting requirements under any of the three alternatives. However, under Alternative 3, there would be an additional access permit requirement for all entry to the Monument.**

All vessels entering the Monument, regardless of the activity they are engaged in, would be required to obtain a joint-agency Monument access permit. The primary purpose of the permit would be to track the different uses of the Monument. Alternative 2 would allow recreational fishing to occur in the Monument without a joint-agency Monument access permit.

It is possible that the need to apply for an access permit under Alternative 3 could discourage some recreational anglers, resulting in either fewer recreational fishing trips overall or fewer individuals recreationally fishing in the Monument. But this potential outcome is uncertain. The remote nature of the Monument, which requires an overnight trip that is higher in cost than a day trip, suggests that it will continue to be a relatively small, dedicated group of anglers who fish in the Monument on a regular basis. The need to acquire an additional permit, which can be obtained on-line, to enter the Monument is not anticipated to be a significant enough deterrent to this group that it would cause a significant decline in this type of overnight tourism.

The Monument management team anticipates that there could be a small beneficial effect to the socioeconomic environment from recreational fishing activities in the Monument under the preferred Alternative 2 (draft management plan and proposed permitting system). Under Alternative 2, no additional access permit would be required to enter the Monument to fish recreationally; and the engagement and education activities identified in the draft management plan are likely to increase awareness of the Monument and the exciting recreational opportunities it offers, potentially leading to a small increase in tourism.

#### **Onsite photography and filming (for other than personal use)**

Onsite photography and filming (for other than personal use), which can occur in the Monument with appropriate permissions, stipulations, and approvals under the Marine Mammal Protection Act and the National Wildlife Refuge Administration Act and Recreation Act, is generally expected to have a neutral effect on the socioeconomic environment, though it is possible that documentary films about the Monument and its unique habitats and species could generate more tourism interest in the Monument.

#### **Onsite education activities that involve fishing**

Educational activities that involve fishing are not expected to have any adverse socioeconomic effects.

#### **Cultural and Historical Environment**

Over 12,000 years ago, much of the continental shelf was exposed, dry land, including portions of the Canyons Unit. This land provided habitat for many cultures and prehistoric creatures during the last Ice Age, also known as the Pleistocene Era. Mammoths and other large mammals are known to have roamed along the canyon heads, which were also sites for Paleo-Indian cultures. Lower sea levels and melting glaciers exposed the land; and torrents of melting glacier water carved the canyons into river valleys.

Informal conversations with archaeologists suggest that the once-coastal rivers flowing through Oceanographer, Gilbert, and Lydonia Canyons were actively used by Native Americans. It is likely that there are archaeological sites in what is now the seafloor around the heads of three canyons (and around the heads of the other canyons along the continental shelf break). While this

area is now 300 feet underwater, the cultural connections between present-day Native Americans and this ancient landscape remain (Terrell, 2007).

As sea levels rose, new and different cultural connections between people and the Monument formed. The Monument's waters became well traversed by vessels from across the world. This led to a rich maritime heritage that encompassed a diversity of cultures. Historically the Monument's waters have been connected with trades such as fishing, whaling, and shipping, of which Native American were an integral part.

The Monument contains historic shipping lanes used for trade during the 17th and 18th centuries and was an area of conflict during World War I and II, when allied shipping and military vessels were attacked by German U-boats (Terrell, 2007). Transatlantic immigrants from the 18th through the 20th century traveled through the Monument's waters, with a peak period being the 1830s through the 1920s. During this period, a number of vessels were lost and could lie within the Monument.

According to the Massachusetts Board of Underwater Archaeological Resources there is one documented shipwreck in the Monument from the 1980s (location uncertain), but archaeologists believe that there are likely other shipwrecks in the Monument, some of which could be discovered on exploratory and research expeditions. Because the shallowest depths in the Monument are around 300 feet (92 meters), recreational shipwreck salvaging is currently not technically feasible in the Monument.

#### *Present-day Native Americans*

There are multiple Native American cultures that may have cultural ties to the Monument and its resources. Some of these Native American peoples are recognized by the Federal Government and some are recognized by State governments. They include the Mi'kmaq Nation, formerly Aroostook Band of Micmacs, the Houlton Band of Maliseet Indians, the Mashantucket Pequot Tribal Nation, the Mashpee Wampanoag Tribe, the Mohegan Tribe of Indians of Connecticut, the Narragansett Indian Tribe, the Passamaquoddy Tribe - Indian Township, the Passamaquoddy Tribe - Pleasant Point, the Penobscot Nation, the Shinnecock Indian Nation, and the Wampanoag Tribe of Gay Head (Aquinnah).

There is also a long list of Native American communities and peoples in the Northeast who are not officially recognized as Indigenous nations by the Federal Government or individual state governments but may also have cultural ties to the Monument and its resources.

## Effects to the Cultural and Historical Environment

Overall, there would be no significant adverse effects (direct, indirect, or cumulative) to the Monument's cultural and historic environment expected to occur as a result of any of the three proposed alternatives. There may be some indirect beneficial effects to the cultural and historic environment from proposed Alternatives 2 and 3. Under those alternatives, there are specific activities identified to increase knowledge, understanding and public awareness of the cultural and historical significance of the Monument.

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### *EFFECTS SUMMARY:*

*No significant adverse effects to the cultural and historic environment expected under any of the three proposed alternatives.*

*Beneficial effects to the cultural and historic environment expected under Alternatives 2 and 3.*

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## Management and Program Activities

### **Onshore routine office and management activities, onshore educational and outreach activities, onshore research activities**

There are no significant adverse effects to the cultural and historic environment associated with these activities under any of the three proposed alternatives.

It is possible that the education and engagement activities proposed under Alternatives 2 and 3, could have an indirect beneficial effect to the cultural and historic environment by increasing public awareness and understanding of the cultural and historic value of the canyons and seamounts.

### **Onsite field research activities**

*The effects of routine research activities on the physical, biological, cultural, historic, and socioeconomic environment have already been evaluated in accordance with NEPA in detail in NOAA's Final Programmatic Environmental Impact Statement (PEIS) for Surveying and Mapping Projects in U.S. Waters for Coastal and Marine Data Acquisition. This PEIS encompasses the Greater Atlantic Region out to the U.S. Exclusive Economic Zone, which includes the Monument, and evaluates the direct, indirect, and cumulative effects on the cultural and historic environment of all the routine surveying and mapping work that is expected to take place in the Monument. None of the activities proposed under any of the three management plan alternatives for the Monument were found to have significant adverse effects to the cultural and historical environment.*

*Additionally, NOAA's Marine Mammal Stranding and Health Program PEIS evaluates the effects of routine marine mammal health studies on the physical, biological, cultural, historic, and socioeconomic environment. No significant adverse effects to the historic and cultural environment in the Monument's region were identified.*

While remotely operated underwater vehicles do occasional touch down on the seafloor and kick up sediment, the likelihood of causing damage to an archaeological site is low given the low frequency of these occurrences and the small area they disturb. It is possible that in surveying the Monument, researchers using ROVs could happen upon a shipwreck. This would be considered a beneficial effect because researchers could record the location and take pictures of the wreck, which would contribute to our understanding of the history of the Monument. Both proposed

Alternatives 2 and 3 include training for researchers working in the Monument on recognizing objects of historical and cultural value and avoiding impacts to them.

#### **Onsite marine debris and ALDFG mechanical removal**

*NOAA evaluated the impacts of marine debris research, assessment, prevention, reduction and removal activities throughout the United States in its Programmatic Environmental Assessment for the NOAA Marine Debris Program. This programmatic NEPA evaluation considers the full range of marine debris activities that may be implemented in the Monument and concludes that there would be no significant adverse effects (direct, indirect, or cumulative) to the cultural and historic environment from these activities.*

#### **Restoration of deep-sea corals**

There are no significant adverse effects to the cultural and historic environment expected as a result of deep-sea coral restoration activities.

#### **Onsite routine enforcement and compliance activities**

There are no significant adverse effects to the cultural and historic environment expected from routine enforcement and compliance activities.

### **Use Activities**

#### **Onsite non-fishing recreational and visitor activities; onsite photography and filming (for personal use); onsite education activities**

There are no significant adverse effects (direct, indirect, or cumulative) to the cultural and historic environment expected as a result of these activities, which would occur under all three alternatives. Any cultural and historic resources in the Monument are at depths that would prevent interaction with any of these recreational or education activities.

There may be some beneficial effects of these activities to the cultural environment under Alternatives 2 and 3, particularly if the Monument management team is successful in creating opportunities for Native Americans with cultural ties to the Monument to visit the Monument in person on overnight trips. Finding ways to assist Native Americans in connecting with the Monument and its resources could greatly benefit the Monument's cultural environment.

#### **Recreational fishing activities**

*Based on the best professional opinions of NOAA Fisheries' management analysts and informal online review of fishing charter websites in the Northeast, the Monument management team believes that most recreational fishing in the Monument is for highly migratory species and occurs almost solely in the Canyons Unit of the Monument.*

*NOAA Fisheries manages and permits the recreational fishing of many species, including highly migratory fish species, in the Atlantic and has evaluated the effects of recreational fishing for highly migratory species under its 2006 Final Consolidated Atlantic Highly Migratory Species Fishery Management Plan. The plan and subsequent amendments set recreational catch limits for these highly migratory species, protect their U.S. spawning habitats, and outline how NOAA Fisheries will engage with the international fishery management community to regulate highly migratory fish.*

*This management plan and its subsequent amendments were developed in accordance with NEPA and include an environmental impact statement that analyzes the effects of recreational fishing for these species on the physical, biological, cultural, historic, and socioeconomic environment. This NEPA analysis did not identify any significant adverse effects to the cultural and historic environment as the result of recreational fishing for these species in the geographic area that includes the Monument.*

*The Mid-Atlantic Fishery Management Council developed and NOAA Fisheries implemented the Tilefish Management Plan, which included an environmental impact statement in accordance with NEPA, and subsequent amendments and policy frameworks. This analysis also does not identify any adverse effects to the cultural and historic environment in the geographic area that includes the Monument as a result of recreational fishing for tilefish.*

Recreational fishing is not expected to have any adverse effects to the cultural and historic environment. All anecdotal evidence suggests that recreational anglers in the Monument are focused on rod and reel fishing for highly migratory species. This gear, used appropriately, does not cause bottom disturbance in depths as great as the Monument's and would not pose a risk to shipwrecks or archaeological sites, given how deep any shipwrecks in the Monument would be located.

Because fishing is a deeply-rooted tradition among Native American and non-Indigenous maritime communities throughout the Northeast, recreational fishing in the Monument under all three alternatives is expected to have a beneficial effect to the cultural environment. Recreational fishing opportunities will provide opportunities to continue to connect culturally with the Monument through fishing.

#### **Onsite photography and filming (for other than personal use)**

Onsite photography and filming (for other than personal use), which can occur in the Monument with appropriate permissions, stipulations, and approvals under the Marine Mammal Protection Act and the National Wildlife Refuge Administration Act and Recreation Act is expected to have no adverse effects on cultural and historic resources. Should shipwrecks or other archaeological sites be discovered in the Monument, filming and photography of these sites would be closely managed through the permitting process to avoid any adverse effects.

It is possible that documentary films that focus on the historic and cultural values of the Monument, or on any historic or cultural archaeological sites discovered in the Monument, could have a beneficial effect on the historic and cultural environment by increasing public awareness and understanding.

#### **Onsite education activities that involve fishing**

Educational activities that involve fishing are not expected to have any adverse effect on the cultural and historic environment. There could be a beneficial effect to the cultural and historic environment should educational programs incorporate learning components about the cultural and historic values of the Monument.



## Cumulative Effects

Cumulative effects are the incremental impact of the proposed action(s) when added to other past, present, and reasonably foreseeable future actions (including action by federal and non-federal agencies and private parties). Cumulative effects can be both beneficial and adverse, though adverse cumulative effects are of more importance to consider and evaluate under NEPA.

### *Cumulative adverse effects*

The ocean landscape is busier than many realize and is becoming busier every day. There are many commercial activities occurring or soon to be occurring in the vicinity of the Monument, including shipping, fishing, and offshore wind development. The military has testing and training ranges in the North Atlantic, and there are also recreational and research activities occurring in and around the Monument.

The ocean is becoming noisier, with more sources of artificial light, and more human-made structures. The onsite research, exploration, recreational, educational, filming/photography, and routine enforcement activities anticipated under all three proposed management plan alternatives will involve operating vessels to, from, and in the Monument. Using vessels in the Monument will cause many of the same adverse impacts within the Monument that those activities cause outside of the Monument.

Air emissions from fossil fueled engines; accidental discharges; lost gear that becomes marine debris; accidental seabird, marine mammal, and sea turtle strikes; seafloor disturbance from the use of scientific instruments; acoustic disturbance of marine mammals, seabirds, sea turtles, and fish; and light disturbance from vessels staying overnight in the Monument are all adverse impacts associated with vessel use proposed inside the Monument that will contribute to the cumulative impact of vessel use in the region.

Onsite recreational, educational, research, exploration, filming/photography, and law enforcement activities proposed under all three proposed management plan alternatives would be occurring on a much smaller scale within the Monument relative to the commercial-scale activities occurring outside of the Monument. The Monument management team estimates a total of 1 to 10 research, educational, and photography/filming trips may occur in the Monument each year. The Monument management team does not yet have a firm estimate of boating, wildlife watching and recreational fishing use in the Monument, but given that visiting the Monument requires an overnight stay for almost all vessels, it is likely that recreational use of the Monument is and will continue to be lower than other surrounding areas that are only a day trip from shore.

The no action alternative could lead to fewer research, stewardship, educational and enforcement trips each year, because there would be no management plan providing an organizational framework for Monument management team activities. Alternative 3, which would implement a Monument access permit requirement for all access to the Monument could lead to a few more vessel trips to the Monument to evaluate compliance (or fewer vessel trips if not as many people choose to recreate in the Monument due to the additional access permit requirement).

In the case of all three proposed alternatives, any cumulative adverse effects associated with management plan activities would be insignificant. The intensity, duration, and frequency of the

adverse effects that would occur in the Monument is so small relative to the scale on which these adverse effects occur in the surrounding ocean landscape, there would be no significant cumulative effect.

#### *Cumulative beneficial effects*

The activities likely to occur in the Monument under all three alternatives (though in a more structured, organized way under Alternatives 2 and 3 than under the no action alternative), may have cumulative beneficial effects when considered in conjunction with other marine protected area efforts in the North Atlantic. Stellwagen Bank National Marine Sanctuary is working on similar research, exploration, stewardship, engagement, and education efforts. Additionally, an area around Hudson Canyon, another deep-sea Atlantic shelf canyon that is located off the coast of New York, is being considered for designation as a national marine sanctuary. To the north, Canada has established several different types of marine protected areas off the coast of New Brunswick and Nova Scotia.

Cumulatively, these marine protected areas can provide great benefits to science, as well as beneficial engagement and educational opportunities. The Monument can share and combine funding and staff resources with these other marine protected areas to conduct comparative studies, develop educational programming, and improve public awareness about ocean ecosystems.

#### *Comparison of Alternatives and Conclusion*

There are some direct, indirect, short-term, long-term, and cumulative adverse impacts associated with the management, stewardship, exploration, research, engagement, and education activities proposed under all three proposed alternatives, though none are considered significant within the context of NEPA. Though the no action alternative would not develop or adopt a management plan, the Service and NOAA Fisheries would still have obligations to manage the Monument under the no action alternative and it is assumed that many activities described in the other alternatives would still occur under the no action alternative.

The insignificant adverse effects associated with the proposed activities under all three alternatives include seafloor disturbance associated with scientific research activities; injury to marine organisms from the process of collecting samples for scientific

identification and study; exacerbation of climate change from the operation of vessels that rely on fossil fuels; entanglement/hooking; vessel strikes; sound and light disturbance from research, recreational, and enforcement vessels; small accidental discharges from research, recreational and management vessels; and inconveniences to Monument tourist visitors under Alternative 3, which would require a separate access permit for all entry to the Monument. None of these adverse effects are expected to be significant.

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##### *Alternative 1: No action*

##### *Alternative 2: Chapter 1 draft management plan and proposed permitting system (preferred alternative)*

##### *Alternative 3: Chapter 1 draft management plan with a different permitting approach that would create and require a joint-agency access permit for all access to the Monument (in addition to existing NOAA Fisheries permitting requirements)*

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The activities likely to take place under all three proposed alternatives are also expected to have beneficial effects by:

- Improving understanding of deep-sea canyons and seamount ecosystems to promote more informed stewardship and management decisions;
- Providing tourism opportunities, such as recreational fishing, wildlife watching, and diving, that connect people to Monument resources, foster a sense of environmental stewardship, and contribute to the marine tourism economy in the Northeast; and
- Improving understanding of cultural connections to the Monument as well as the maritime history of the Monument, which helps to connect people to the Monument resources, and foster a sense of cultural stewardship and community.

The Monument management team has identified Alternative 2 (Chapter 1 draft management plan and proposed permitting system) as the preferred alternative because it best meets the purpose of and need for developing a management plan, most effectively manages compatible priority public uses under the National Wildlife Refuge Administration Act and will likely lead to greater beneficial effects than the other two proposed alternatives.

The no action alternative is not preferred because it would provide no publicly accessible framework for joint management of the Monument. This would create challenges for the public, NOAA, and the Service. Permitting and other management issues would end up being determined on a case-by-case basis, requiring a significant investment of staff time. The public would not have a clear sense of its involvement in management and stewardship. Additionally, the Monument would not be in compliance with the National Wildlife Refuge System Administration Act or Presidential Proclamation 9496, both of which require management planning.

Alternatives 2 and 3 are both viable approaches to managing the Monument. That being said, the two alternatives take fundamentally different approaches to working with user groups, particularly recreational fishing, wildlife watching, and boating communities. These two alternatives take profoundly different approaches to allocating staff time.

Currently, the Monument is supported by 1.5 full-time employees with additional support from one full-time temporary Service employee and several other employees who work on the Monument in addition to their regular full-time duties. While it is possible that the Monument staff may grow over the life of the management plan, the Monument management team must think carefully about how staff time is best invested.

Decades of marine protected area management have demonstrated that community involvement in stewardship is key to achieving conservation and protection goals. A large-scale joint-access permitting program such as the one proposed under Alternative 3 would be difficult and time-consuming to design (likely requiring years) and enforce – particularly in a region as densely populated as the Northeast. The Monument’s limited staff time would be consumed with trying to establish, create awareness of, and enforce the joint-agency Monument access permit (which would be required in addition to other existing permitting requirements).

It is unclear how long it would take before compliance with the joint-agency access permit requirement would be high enough to provide an accurate picture of uses in the Monument.

Moreover, a permitting program of this nature, even though it would be intended to track and not restrict uses, could complicate relationships and efforts to promote community stewardship and build partnerships with user groups.

Alternative 2 utilizes permits more sparingly, relying on NOAA Fisheries' already robust permitting system for recreational fishing, educational programs that involve fishing activities, photography, filming, scientific research, and study of marine mammals, and using Service permitting authorities to permit a select group of activities, such as non-NOAA, non-Service research, at-sea educational programs that do not involve fishing, and filming (for distribution) that does not involve marine mammals.

Rather than trying to track recreational fishing, wildlife watching, diving, and boating use of the Monument through a permitting system, Monument staff would work to understand recreational use of the Monument by developing relationships and partnerships with recreational users of the Monument, conducting surveys, and exploring emerging satellite and remote sensing technologies to track use. Recreational visitors to the Monument likely are able to visit the Monument more frequently than staff and could provide valuable ecological information about the Monument.

As of yet, no one on the Monument management team has had the opportunity to visit the Monument in-person. The team recognizes that, in addition to the researchers who work in the Monument, boaters, anglers, and wildlife watchers that visit the Monument have observational knowledge about resources in the Monument that could be valuable to informing management. The Monument management team would like to work with these groups to develop a community co-stewardship program for the Monument. Alternative 2 (Chapter 1 draft management plan and proposed permitting system) presents the best opportunity to accomplish this.

The Monument management team concludes that there are no significant adverse effects associated with the proposed action of developing a management plan for the Monument and does not anticipate needing to develop an environmental impact statement to further evaluate the development of a management plan for the Monument.

The Monument management team proposes to select its preferred alternative (2), the Chapter 1 draft management plan and proposed permitting system, and requests comments from the public on the draft management plan and this draft environmental assessment. The Monument management team will consider all comments before 1) developing the final management plan and environmental assessment and making a final alternative selection; and 2) making a final decision on whether to issue a finding of no significant impact (FONSI) for the proposed action of developing and implementing a management plan for the Monument. A response to comments will be included in the final management plan and environmental assessment.

#### [Compliance with other relevant laws, regulations, and policies](#)

**Endangered Species Act** – The Service is conducting an internal, intraservice consultation under Section 7 of the Endangered Species Act to evaluate whether there will be effects to listed species and critical habitat under its purview as a result of the activities proposed in the draft management plan. Project-specific consultations with the Service will likely be required in the future as the management plan is implemented. NOAA is conducting a similar internal evaluation of the activities proposed in the draft management plan.

**National Wildlife Refuge System Administration Act, as amended by the National Wildlife Refuge System Improvement Act of 1997** – The Service manages the Monument as a unit of the National Wildlife Refuge System under this act. This draft management plan and environmental assessment was developed in compliance with this act and serve as the comprehensive conservation plan that this act requires all units of the National Wildlife Refuge System to develop.

**Refuge Recreation Act** – This act and its subsequent amendments authorize the Secretary of the Interior to administer refuges, hatcheries, and other conservation areas for recreational use, when such uses do not interfere with the primary purpose for which these areas were established.

**Executive Order 6166 of June 10, 1933** – This order provided for the reorganization of some agencies under the Executive Branch and consolidated all functions of administration of public buildings, reservations, national parks, national monuments, and national cemeteries within the Department of the Interior.

**Public Law 98-532** – This law, passed in 1984, ratified and affirmed prior Federal reorganization plans.

**Magnuson-Stevens Fishery Conservation and Management Act** – The draft management plan was developed in compliance with this act. There are no activities proposed under any of the three alternatives that would alter or interfere with fisheries management under this act.

**Marine Mammal Protection Act** – All on-site activities that have the potential to involve interaction with marine mammals (e.g., filming projects that involve marine mammals, scientific investigations that may involve marine mammals) will be required to have all necessary Marine Mammal Protection Act permits in place before commencing work in the Monument.

**Coastal Zone Management Act** – The Coastal Zone Management Act requires that federal agency actions with reasonably foreseeable effects (direct, indirect, and cumulative effects) on any land or water use or natural resource of the coastal zone be consistent, to the maximum extent practicable, with the enforceable policies of a coastal state or territory's federally-approved Coastal Management Plan. The Monument management team has evaluated the potential effects of the proposed Monument management plan on coastal resources and uses and has determined that the proposed Monument management plan will not have effects on coastal resources and uses (referred to as a "negative determination"). The team is submitting its negative determination to the Coastal Zone Management Act program coordinators in Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, and New York for consideration along with the draft management plan and environmental assessment. The Monument management team will coordinate with the state Coastal Zone Management programs accordingly and a final Coastal Zone Management Act determination will be included as an appendix to the final management plan and environmental assessment.

**National Historic Preservation Act** – The Monument management team has not identified any adverse impacts to historic resources associated with the development of the draft management plan for the Monument.

The Advisory Council on Historic Preservation has advised the Monument management team that Sections 106 and 402 of the National Historic Preservation Act, which require Federal agencies to identify and assess the effects of their actions on historic and cultural resources, do not apply in the Monument. This is due to the fact that the Monument does not lie within a state boundary, nor does it lie outside of the U.S.

The Monument management team will ensure that the Tribal Historic Preservation Offices of all federally recognized Native American governments and State Historic Preservation Offices in Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, and New York are notified when the draft management plan and environmental assessment is published with a request for input and comments.

Regardless of the applicability of Section 106 and 402, the Monument management team has identified multiple strategies in the draft management plan for partnering with Tribal and State Historic Preservation Offices to protect and interpret any historic or cultural resources that are discovered in the Monument.

**Archaeological Resources Protection Act** – No archaeological investigations or excavations are planned or anticipated in the Monument at this time.

**Migratory Bird Treaty Act of 1918** – This act prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Service. The Monument management team will ensure that any projects or activities taking place in the Monument are conducted in compliance with this act and have any necessary permits or authorizations required under the Migratory Bird Treaty Act.

**Executive Order 13175 Consultation and Coordination with Indian Tribal Governments** – This order established and required regular and meaningful consultation and collaboration with Tribal officials in the development of federal policies that have Tribal implications. The Monument management team engaged Native American governments and communities in the scoping process for the Monument’s draft management plan, and is also sharing the draft management plan with and requesting feedback and comments from Native American governments and communities.

**Executive Order 13751 Safeguarding Nation from Impacts of Invasive Species** – This order, issued in 2016, ensures the faithful execution of the laws of the United States of America to prevent the introduction of invasive species and provide for their control, and to minimize the economic, plant, animal, ecological and human health impacts that invasive species cause. Presidential Proclamation 9496 prohibits the introduction of invasive species into the Monument.

## References

Ackleh, A. S., R. A. Chiquet, B. Ma, T. Tang, H. Caswell, A. Veprauskas, and N. Sidorovskaia. 2017. Analysis of lethal and sublethal impacts of environmental disasters on sperm whales using stochastic modeling. *Ecotoxicology* 26: 820-830.



- Allen, S. E. and X. Durrieu de Madron. 2009. A review of the role of submarine canyons in deep-ocean exchange with the shelf. *Ocean Science* 5: 607-620.
- Andres, M. 2016. On the recent destabilization of the Gulf Stream path downstream of Cape Hatteras. *Geophys. Res. Lett.* 43: doi:10.1002/2016GL069966.
- Angel, M. V. 2003. The pelagic environment of the open ocean. In: P. A. Tyler, editor. *Ecosystems of the Deep Ocean*. 1<sup>st</sup> ed. Amsterdam (The Netherlands): Elsevier Science B.V. p. 39-80.
- Auer, S. J. 1987. Five-year climatological survey of the Gulf Stream system and its associated rings. *Journal of Geophysical Research* 92: 11709-11726.
- Auster, P.J., Hodge, B., McKee, M., and Kraus, S., 2020. *A Scientific Basis for Designation of the Northeast Canyons and Seamounts Marine National Monument*. *Frontiers in Marine Science*, Volume 7, Article 566, doi: 10.3389/fmars.2020.00566.
- Auster, P. J., J. Moore, K. Heinonen, L. Watling, A. Freiwald, J. M. Roberts, 2005. A habitat classification scheme for seamount landscapes: assessing the functional role of deepwater corals as fish habitat. *Cold-water Corals and Ecosystems*. Berlin Springer. Pg. 761-769.
- Auta, H. S., C. Emenike, and S. H. Fauziah. 2017. Distribution and importance of microplastics in the marine environment: a review of the sources, fate, effects, and potential solutions. *Environment International* 102: <https://www.researchgate.net/deref/http%3A%2F%2Fdx.doi.org%2F10.1016%2Fj.envint.2017.02.013>.
- Baran. M.A., S.W. Kress, P. Shannon, D.E. Lyons, H.L. Major and A.W. Diamond, 2022. *Overwinter movement of Atlantic puffins (Fratercula arctica) breeding in the Gulf of Maine: inter- and intra-colony effects*. *Journal of the Waterbird Society*, Vol. 45, No. 1, pp.1 – 16.
- Barton, A. D., A. J. Irwin, Z. V. Finkel, and C. A. Stock, 2016: Anthropogenic climate change drives shift and shuffle in North Atlantic phytoplankton communities. *Proceedings of the National Academy of Sciences of the United States of America*, 113: 2964–2969. doi:10.1073/pnas.1519080113.
- Boehlert, G. W., and A. Genin. 1987. A review of the effects of seamounts on biological processes. In: Keating, B.H., P. Fryer, R. Batiza, and G. Boehlert (eds) *Seamounts, Islands, and Atolls*. Amer Geophys Union, *Geophysical Monograph* 43: 319-334.
- Bryce, E. 2016. Audubon: Where do Maine's Atlantic Puffins go for the Winter? Accessed: 25 October 2018. <https://www.audubon.org/news/where-do-maines-atlantic-puffins-go-winter>.
- Burge, C. A., C. M. Eakin, C. S. Friedman, B. Froelich, P. K. Hershberger, E. E. Hofmann, L. E. Petes, K. C. Prager, E. Weil, B. L. Willis, S. E. Ford, and C. D. Harvell, 2014: Climate change influences on marine infectious diseases: Implications for management and society. *Annual Review of Marine Science*, 6 (1), 249–277. doi:10.1146/annurev-marine-010213-135029.
- Burke, C. A., and C. L. Drake (Eds). 1974. *The Geology of Continental Margins*. Springer-Verlag Berlin Heidelberg.
- Chaudhuri, A., J. Bisagni, and A. Gangopadhyay, 2009. Shelf water entrainment by Gulf Stream warm-core rings between 75o W and 50o W during 1978-1999. *Cont. Shelf Res.*, 29, 393-406.
- Chaudhuri, A., A. Gangopadhyay, and J. Bisagni, 2009. Interannual variability of Gulf Stream warm-core rings in response to the North Atlantic Oscillation. *Cont. Shelf Res.*, 29, 856-869.

- Chivers, W. J., A. W. Walne, and G. C. Hays, 2017: Mismatch between marine plankton range movements and the velocity of climate change. *Nature Communications*, 8: 14434. doi:[10.1038/ncomms14434](https://doi.org/10.1038/ncomms14434).
- Clark, W. C., W. T. Ellison, B. L. Southall, L. Hatch, S. M. Van Parijs, A. Frankel, and D. Ponirakis. 2009. Acoustic masking in marine ecosystems: intuitions, analysis, and implications. *Marine Ecology Progress Series* 395: 201-222.
- Day, T. 1999. *Ecosystems: Oceans*. New York (NY): Fitzroy Dearborn Publishers, 1999.
- Dickson, B., Yashayaev, I., Meincke, J., Turrell, B., Dye, S., and Holfort, J., 2002. Rapid freshening of the deep North Atlantic Ocean over the past four decades. *Nature*, Vol. 416, pp.832 – 837.
- Doney, S. C., V. J. Fabry, R. A. Feely, and J. A. Kleypas. 2009. Ocean acidification: the other CO<sub>2</sub> problem. *Washington Journal of Environmental Law and Policy* 6: 212-251.
- Dupigny-Giroux, L.A., E.L. Mccray, M.D. Lemcke-Stampone, G.A. Hodgkins, E.E. Lentz, K.E. Mills, E.D. Lane, R. Miller, D.Y. Hollinger, W.D. Solecki, G.A. Wellenius, P.E. Sheffield, A.B. MacDonald, and C. Caldwell. 2018. Northeast. In *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II* [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA. doi: 10.7930/NCA4.2018.CH18
- Fabry, V. J., Seibel, B. A., Feely, R. A., and Orr, J. C. 2008. Impacts of ocean acidification on marine fauna and ecosystem processes. – *ICES Journal of Marine Science*, 65: 414–432.
- Farr ER, Johnson MR, Nelson MW, Hare JA, Morrison WE, et al. 2021. An assessment of marine, estuarine, and riverine habitat vulnerability to climate change in the Northeast U.S.. *PLOS ONE* 16(12): e0260654. <https://doi.org/10.1371/journal.pone.0260654>
- Feely, R.A., S.C. Doney, and S.R. Cooley. 2009. Ocean acidification: Present conditions and future changes in a high-CO<sub>2</sub> world. *Oceanography* 22(4):36–47, <https://doi.org/10.5670/oceanog.2009.95>.
- Flagg, C. N. 1987. Hydrographic structure and variability. In: R.H. Backus (ed), *Georges Bank*, MIT Press, Cambridge, Massachusetts, p. 125-138.
- Gall, S. C., and R. C. Thompson. 2015. The impact of debris on marine life. *Marine Pollution Bulletin* 92: 170-179.
- Gonçalves Neto, A., Langan, J.A. & Palter, J.B. 2021. Changes in the Gulf Stream preceded rapid warming of the Northwest Atlantic Shelf. *Communications Earth & Environment* 2, 74. <https://doi.org/10.1038/s43247-021-00143-5>
- Hare, J. A., J. H. Churchill, R. K. Cowen, T. J. Berger, P. C. Cornillon, P. Dragos, S. M. Glenn, J. J. Govoni, T. N. Lee. 2002. Routes and rates of larval fish transport from the southeast to the northeast United States continental shelf. *Limnology and Oceanography* 47: 1774-1789.
- Hartel, K. E., C. P. Kenaley, J. K. Galbraith, and T. T. Sutton. 2008. Additional records of deep-sea fishes from off greater New England, *Northeastern Naturalist* 15: 317-334.
- Heaslip, S. G., S. J. Iverson, W. D. Bowen, and M. C. James. 2012. Jellyfish support high energy intake of Leatherback Sea Turtles (*Dermochelys coriacea*): Video evidence from animal-borne cameras. *PLOS ONE* 7: 10.1371/annotation/4722cac5-8305-4b03-b805-a59ced1eea49.

- Heezen, B. C., C. D. Hollister, and W. F. Ruddiman. 1966. Shaping of the continental rise by deep geostrophic contour currents. *Science* 152: 502-508.
- Heezen, B. C., M. Tharp, and M. Ewing. 1959. The floors of the oceans 1. The North Atlantic. Geological Society of America Special Papers 65: 17-35.
- Helfman, G., B. B. Collette, D. E. Facey, and B. W. Bowen. 2009. *The Diversity of Fishes*. 2<sup>nd</sup> Ed. Oxford (UK): Wiley-Blackwell.
- Hickey, B. M. 1995. 'Coastal submarine canyons'. Topographic effects in the ocean: proceedings of the eighth 'Aha Huliko'a Hawaiian winter workshop. School of Ocean and Earth Science and Technology. University of Hawaii. Pp. 95-110.
- Kaplan, K. A., D. R. Hart, K. Hopkins, S. Gallager, A. York, R. Taylor, and P. J. Sullivan. 2017. Evaluating the interaction of the invasive tunicate *Didemnum vexillum* with the Atlantic sea scallop *Placopecten magellanicus* on open and closed fishing grounds of Georges Bank. *ICES Journal of Marine Science* 74: 2470-2479. <https://doi.org/10.1093/icesjms/fsx076>.
- Kavanaugh, M. T., J. E. Rheuban, K. M. A. Luis, and S. C. Doney. 2017. Thirty-three years of ocean benthic warming along the U.S. Northeast Continental Shelf and Slope; Patterns, drivers, and ecological consequences. *Scientific Reports* 2: 9399-9414.
- Lucey, Sean (ed.) et al. 2023. State of the Ecosystem 2023: New England. <https://doi.org/10.25923/9sb9-nj66>
- Marshall, P.A., Dowd, A.M., Luder, C., Maynard, J.A., Beeden, R. (2015). *A Reef Manager's Guide to Fostering Community Stewardship*. Gland, Switzerland: IUCN, <https://www.iucn.org/resources/publication/reef-managers-guide-fostering-community-stewardship>.
- McGregor, B. A. 1968. Features at the Sohm Abyssal Plain terminus. *Marine Geology* 6: 401-414.
- Kelly, N. E., E. K. Shea, A. Metaxas, R. L. Haedrich, and P. J. Auster. 2010. Biodiversity of the deep-sea continental margin bordering the Gulf of Maine (NW Atlantic): Relationships among Subregions and to shelf systems. *PLoS ONE* 5(11): e13832. <https://doi.org/10.1371/journal.pone.0013832>.
- Lentz, S. J., R. C. Beardsley, J. D. Irish, J. Manning, P. C. Smith, and R. A. Weller. 2003. Temperature and salt balances on Georges Bank February-August 1995. *Journal of Geophysical Research* 108: 1-17.
- Li, M. Z., W. Yongsheng, R. H. Prescott, C. C. L. Tang, G. Han. 2015. A modeling study of the impact of major storms on waves, surface and near-bed currents on the Grand Banks of Newfoundland. *Journal of Geophysical Research* 120: 5358-5386.
- Lozier, M. S., A. C. Dave, J. B. Palter, L. M. Gerber, R. T. Barber. 2011. On the relationship between stratification and primary productivity in the North Atlantic. *Geophysical Research Letters* 38. <https://doi.org/10.1029/2011GL049414>
- Lurton, X. and S. DeRuiter. 2011. Sound radiation of seafloor – mapping echosounders in the water column, in relation to the risks posed to marine mammals. *International Hydrographic Review*. [Online] <http://archimer.ifremer.fr/doc/00115/22607/20313.pdf>.
- Maynard, J., R. Van Hooidek, C. D. Harvell, C. M. Eakin, G. Liu, B. L. Willis, G. J. Williams, M. L. Groner, A. Dobson, S. F. Heron, R. Glenn, K. Reardon, and J. D. Shields. 2016. Improving marine disease surveillance through sea temperature monitoring, outlooks and projections. *Philosophical Transactions of the Royal Society of London* 1689: pii: 20150208. doi: 10.1098/rstb.2015.0208.

Mello-Rafter K, Sowers D, Malik M, Watling L, Mayer LA and Dijkstra JA (2021) Environmental and Geomorphological Effects on the Distribution of Deep-Sea Canyon and Seamount Communities in the Northwest Atlantic. *Front. Mar. Sci.* 8:691668. doi: 10.3389/fmars.2021.691668

Moore, J. A., M. Vecchione, K. E. Hartel, B. B. Collette, J. K. Galbraith, R. Gibbons, M. Turnipseed, M. Southworth, E. Watkins. 2003. Biodiversity of Bear Seamount, New England seamount chain: results of exploratory trawling. *Journal of Northwest Atlantic Fishery Science* 31: 363–372.

Moore, J. A., K. E. Hartel, J. E. Craddock, J. K. Galbraith, 2003. An annotated list of deepwater fishes from off the New England region, with new area records. *Northeastern Naturalist* 10: 159-248.

Moret-Ferguson, S., K. L. Law, G. Proskurowski, E. K. Murphy, E. E. Peacock, and C. M. Reddy. 2010. The size, mass, and composition of plastic debris in the western North Atlantic Ocean. *Marine Pollution Bulletin* 60: 1873-1878.

National Academies of Sciences, Engineering, and Medicine. 2022. Reckoning with the U.S. Role in Global Ocean Plastic Waste. Washington, DC: The National Academies Press.  
<https://doi.org/10.17226/26132>.

New England Aquarium, Anderson Cabot Center for Ocean Life, September 2018. 600+ Animals in 4 Hours: Biodiversity Abounds in the Monument. Accessed: 24 October, 2018.  
<https://www.andersoncabotcenterforoceanlife.org/blog/september-aerial-survey-canyons-and-seamounts/>

Nelms, S. E., E. M. Duncan, A. C. Broderick, T. S. Galloway, M. H. Godfrey, M. Hamann, P. K. Lindeque, B. J. Godley. 2016. Plastic and marine turtles: a review and call for research. *ICES Journal of Marine Science* 73: 165-181.

NOAA. (National Oceanic and Atmospheric Administration). 2018. What is ocean noise? National Ocean Service website, <https://oceanservice.noaa.gov/facts/ocean-noise.html>. Accessed 11/15/18.

NOAA Fisheries, 2005. Environmental impact statement for minimizing impacts of the Atlantic Herring fishery on essential fish habitat.

NOAA National Ocean Service, 2013. Programmatic Environmental Assessment (PEA) for the NOAA Marine Debris Program (MDP), <https://marinedebris.noaa.gov/reports/marine-debris-program-programmatic-environmental-assessment>.

NOAA National Ocean Service, 2022. Final Programmatic Environmental Impact Statement (PEIS) for Surveying and Mapping Projects in U.S. Waters for Coastal and Marine Data Acquisition, <https://oceanservice.noaa.gov/about/environmental-compliance/final-surveying-mapping-PEIS-sections.html>.

NOAA Fisheries, 2022. Programmatic Environmental Impact Statement for Marine Mammal Health and Stranding Response Program: Final Programmatic Environmental Impact Statement, <https://repository.library.noaa.gov/view/noaa/47576>.

Northeast Fisheries Science Center (U.S.) (2023). State of the Ecosystem 2023: Mid-Atlantic. <https://doi.org/10.25923/vy6j-w454>

Nye, J. A., J. S. Link, J. A. Hare, and W. J. Overholtz. 2009. Changing spatial distribution of fish stocks in relation to climate and population size on the Northeast United States Continental Shelf. *Marine Ecology Progress Series* 393: 111-129.

Occhipinti-Ambrogi, A., and B. Galil. 2010. Marine alien species are an aspect of global change. *Advances in Oceanography and Limnology* 1. <https://doi.org/10.1080/19475721003743876>.

- Pace, R. M. III, P. J. Corkeron, S. D. Kraus. 2017. State-space mark-recapture estimates reveal a recent decline in abundance of North Atlantic right whales. *Ecology and Evolution* 7: 8730-8741.
- Pershing, A. J., M. A. Alexander, C. M. Hernandez, L. A. Kerr, A. Le Bris, K. E. Mills, J. A. Nye, N. R. Record, H. A. Scannell, J. D. Scott, G. D. Sherwood, and A. C. Thomas, 2015: Slow adaptation in the face of rapid warming leads to collapse of the Gulf of Maine cod fishery. *Science* 350: 809–812. doi:[10.1126/science.aac9819](https://doi.org/10.1126/science.aac9819).
- Pershing, A.J., R.B. Griffis, E.B. Jewett, C.T. Armstrong, J.F. Bruno, D.S. Busch, A.C. Haynie, S.A. Siedlecki, and D. Tommasi, 2018: Oceans and Marine Resources. In Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA. doi: 10.7930/NCA4.2018.CH9
- Piper, D. J. W., D. A. V. Stow, W. R. Normark. 1983. The Laurentian Fan: Sohm abyssal plain. *Geo-Marine Letters* 3: 141-146.
- Raine, A.F., C. Gjerdrum, I. Pratte, J. Madeiros, J.J. Felis, J. Adams, 2021. Marine distribution and foraging habitat highlight potential threats at sea for the endangered Bermuda petrel *Pterodroma cahow*. *Endangered Species Research*, Vol. 45: 337 – 356.
- Richardson, R. L. 1983. Gulf Stream Rings. In: Robinson A. R. (eds). *Eddies in Marine Science. Topics in Atmospheric and Oceanographic Sciences*. Springer, Berlin, Heidelberg
- Rochman, C. M., T. Kurobe, I. Flores, and S. J. Teh. 2014. Early warning signs of endocrine disruption in adult fish from ingestion of polyethylene with and without sorbed chemical pollutants from the marine environment. *Science of the Total Environment* 493: 656-661.
- Ryan, J. P., J. A. Yoder, and D. W. Townsend. 2001. Influence of a Gulf Stream warm-core ring on water mass and chlorophyll distributions along the southern flank of Georges Bank. *Deep-Sea Research II* 48: 159-178.
- Satgé, Y.G., B.S. Keitt, C.P. Gaskin, B. Patteson, P.G.R. Jodice. 2022. Temporal and spatial segregations between phenotypes of the Diablotin Black-capped Petrel *Pterodroma hasitata* during the breeding and non-breeding periods. *BioRxiv preprint* doi: <https://doi.org/10.1101/2022.06.02.491532> .
- Schorr, G. S., E. A. Falcone, D. J. Moretti, R. D. Andrews. 2014. First long-term behavioral records from Cuvier’s Beaked Whales (*Ziphius cavirostris*) reveal record-breaking dives. *PLoS One* 9: e92633. <https://doi.org/10.1371/journal.pone.0092633>.
- Shanmugam, G., 2006, Deep-water processes and facies models: Implications for sandstone petroleum reservoirs: Amsterdam, Elsevier, Handbook of petroleum exploration and production, v. 5, 476 p.
- Sorte, C. J., S. L. Williams, R. A. Zerebecki. 2010. Ocean warming increases threat of invasive species in a marine fouling community. *Ecology* 91: 2198-2004.
- Soto, N. A., M. Johnson, P. T. Madsen, P. L. Tyack, A. Bocconcelli, and J. F. Borsani. 2006. Does intense ship noise disrupt foraging in deep-diving Cuvier’s Beaked Whales (*Ziphius cavirostris*). *Marine Mammal Science* 22: 690-699.
- Stachowicz, J. J., J. R. Terwin, R. B. Whitlatch, and R. W. Osman. 2002. Linking climate change and biological invasions: Ocean warming facilitates nonindigenous species invasions. *Proceedings of the National Academy of Sciences of the United States of America* 99: 15497-15500. <https://doi.org/10.1073/pnas.242437499>.

- Talmage and Gobler. 2011. Effects of elevated temperature and carbon dioxide on the growth and survival of larvae and juveniles of three species of Northwest Atlantic Bivalves. PLoS ONE 6(10): e26941. <https://doi.org/10.1371/journal.pone.0026941>.
- Terrell, B.G. 2007. Fathoming Our Past, Historical Contexts of the National Marine Sanctuaries. NOAA National Marine Sanctuary Program, Silver Spring, Maryland. 68 p + xi, <https://repository.library.noaa.gov/view/noaa/10726>.
- Townsend, D. W., A. C. Thomas, L. M. Mayer, M. A. Thomas, and J. A. Quinlan. 2006. Chapter 5: Oceanography of the Northwest Atlantic Continental Shelf (1,w)<sup>1</sup>. In: *The Sea*, Volume 14A, Eds: A. R. Robinson and K. H. Brink. Harvard University Press, Cambridge.
- Townsend, D.W. and M. Thomas. 2002. Springtime nutrient and phytoplankton dynamics on Georges Bank. Mar. Ecol. Prog. Ser. 228: 57-74.
- Trumble, S. J., S. A. Norman, D. D. Crain, F. Mansouri, Z. C. Winfield, R. Sabin, C. W. Potter, C. M. Gabriele, and S. Usenko. 2018. Baleen whale cortisol levels reveal a physiological response to 20<sup>th</sup> century whaling. Nature Communications 9: 4587. doi: [\[10.1038/s41467-018-07044-w\]](https://doi.org/10.1038/s41467-018-07044-w).
- Twichell, D. C. 1983. Geology of the head of Lydonia Canyon, U.S. Atlantic outer continental shelf. Marine Geology 54: 91-108.
- Valentine, P. C., J. R. Uzzmann, R. A. Cooper. 1980. Geology and biology of Oceanographer submarine Canyon. Marine Geology 38: 283-312.
- Valentine, P. C. 1987. The Shelf-slope Transition--canyon and Upper Slope Sedimentary Processes on the Southern Margin of Georges Bank: An Examination of Sedimentary Environments in Water Depths of 150-600 Meters and of how They are Determined by the Interaction of Available Sediment, Bottom Currents, and Sea-floor Morphology. Department of the Interior, U.S. Geological Survey, 1987.
- Valentine, P. C., R. A. Cooper, and J. R. Uzzmann. 1984. Submarine sand dunes and sedimentary environments of Oceanographer Canyon. Journal of Sedimentary Petrology 54: 704-715.
- Vallina, S. M., M. J. Follows, S. Dutkiewicz, J. M. Montoya, P. Cermenon, and M. Loreau. 2014. Global relationship between phytoplankton diversity and productivity in the ocean.
- Wiebe, P., R. Beardsley, D. Mountain, and A. Bucklin. 2002. U.S. GLOBEC Northwest Atlantic/Georges Bank Program. Oceanography 15: 13-29.
- Wieczorek, A. M., L. Morrison, P. L. Croot, A. L. Allcock, E. MacLoughlin, O. Savard, H. Brownlow, and T. K. Doyle. 2018. Frequency of microplastics in mesopelagic fishes from the Northwest Atlantic. Frontiers in Marine Science 5. <https://doi.org/10.3389/fmars.2018.00039>.
- Williams, W., A. J. Wright, E. Ashe, L. K. Blight, R. Bruintjes, R. Canessa, C. W. Clark, S. Cullis-Suzuki, D. T. Dakin, C. Erbe, P. S. Hammond, N. D. Merchant, P. D. O'Hara, J. Purser, A. N. Radford, S. D. Simpson, L. Thomas, and M. A. Wale. 2015. Impacts of anthropogenic noise on marine life: Publication patterns, new discoveries, and future directions in research and management. Ocean and Coastal Management 115: 17-24.
- Wunsch, C. 2002. What is the thermohaline circulation? Science 298: 1179-1181.
- Hickey, B. M. 1997. The response of a steep-sided narrow canyon to strong wind forcing. Journal of Physical Oceanography. 27: 697-726.



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## Appendix A. Presidential Proclamation 9496, September 15, 2016

*Administration of Barack Obama, 2016*

**Proclamation 9496—Northeast Canyons and Seamounts Marine National Monument**

*September 15, 2016*

*By the President of the United States of America*

*A Proclamation*

For generations, communities and families have relied on the waters of the northwest Atlantic Ocean and have told of their wonders. Throughout New England, the maritime trades, and especially fishing, have supported a vibrant way of life, with deep cultural roots and a strong connection to the health of the ocean and the bounty it provides. Over the past several decades, the Nation has made great strides in its stewardship of the ocean, but the ocean faces new threats from varied uses, climate change, and related impacts. Through exploration, we continue to make new discoveries and improve our understanding of ocean ecosystems. In these waters, the Atlantic Ocean meets the continental shelf in a region of great abundance and diversity as well as stark geological relief. The waters are home to many species of deep-sea corals, fish, whales and other marine mammals. Three submarine canyons and, beyond them, four undersea mountains lie in the waters approximately 130 miles southeast of Cape Cod. This area (the canyon and seamount area) includes unique ecological resources that have long been the subject of scientific interest.

The canyon and seamount area, which will constitute the monument as set forth in this proclamation, is composed of two units, which showcase two distinct geological features that support vulnerable ecological communities. The Canyons Unit includes three underwater canyons—Oceanographer, Gilbert, and Lydonia—and covers approximately 941 square miles. The Seamounts Unit includes four seamounts—Bear, Mytilus, Physalia, and Retriever—and encompasses 3,972 square miles. The canyon and seamount area includes the waters and submerged lands within the coordinates included in the accompanying map. The canyon and seamount area contains objects of historic and scientific interest that are situated upon lands owned or controlled by the Federal Government. These objects are the canyons and seamounts themselves, and the natural resources and ecosystems in and around them.

The canyons start at the edge of the geological continental shelf and drop from 200 meters to thousands of meters deep. The seamounts are farther off shore, at the start of the New England Seamount chain, rising thousands of meters from the ocean floor. These canyons and seamounts are home to at least 54 species of deep-sea corals, which live at depths of at least 3,900 meters below the sea surface. The corals, together with other structure-forming fauna such as sponges and anemones, create a foundation for vibrant deep-sea ecosystems, providing food, spawning habitat, and shelter for an array of fish and invertebrate species. These habitats are extremely sensitive to disturbance from extractive activities.

Because of the steep slopes of the canyons and seamounts, oceanographic currents that encounter them create localized eddies and result in upwelling. Currents lift nutrients, like nitrates and phosphates, critical to the growth of phytoplankton from the deep to sunlit surface waters. These nutrients fuel an eruption of phytoplankton and zooplankton that form the base of the food chain. Aggregations of plankton draw large schools of small fish and then larger

animals that prey on these fish, such as whales, sharks, tunas, and seabirds. Together the geology, currents, and productivity create diverse and vibrant ecosystems.

### *The Canyons*

Canyons cut deep into the geological continental shelf and slope throughout the mid-Atlantic and New England regions. They are susceptible to active erosion and powerful ocean currents that transport sediments and organic carbon from the shelf through the canyons to the deep ocean floor. In Oceanographer, Gilbert, and Lydonia canyons, the hard canyon walls provide habitats for sponges, corals, and other invertebrates that filter food from the water to flourish, and for larger species including squid, octopus, skates, flounders, and crabs. Major oceanographic features, such as currents, temperature gradients, eddies, and fronts, occur on a large scale and influence the distribution patterns of such highly migratory oceanic species as tuna, billfish, and sharks. They provide feeding grounds for these and many other marine species.

Toothed whales, such as the endangered sperm whale, and many species of beaked whales are strongly attracted to the environments created by submarine canyons. Surveys of the area show significantly higher numbers of beaked whales present in canyon regions than in non-canyon shelf-edge regions. Endangered sperm whales, iconic in the region due to the historic importance of the species to New England's whaling communities, preferentially inhabit the U.S. Atlantic continental margin. Two additional species of endangered whales (fin whales and sei whales) have also been observed in the canyon and seamount area.

### *The Seamounts*

The New England Seamount Chain was formed as the Earth's crust passed over a stationary hot spot that pushed magma up through the seafloor, and is now composed of more than 30 extinct undersea volcanoes, running like a curved spine from the southern side of Georges Bank to midway across the western Atlantic Ocean. Many of them have characteristic flat tops that were created by erosion by ocean waves and subsidence as the magma cooled. Four of these seamounts—Bear, Physalia, Retriever, and Mytilus—are in the United States Exclusive Economic Zone. Bear Seamount is approximately 100 million years old and the largest of the four; it rises approximately 2,500 meters from the seafloor to within 1,000 meters of the sea surface. Its summit is over 12 miles in diameter. The three smaller seamounts reach to within 2,000 meters of the surface. All four of these seamounts have steep and complex topography that interrupts existing currents, providing a constant supply of plankton and nutrients to the animals that inhabit their sides. They also cause upwelling of nutrient-rich waters toward the ocean surface.

Geographically isolated from the continental platform, these seamounts support highly diverse ecological communities with deep-sea corals that are hundreds or thousands of years old and a wide array of other benthic marine organisms not found on the surrounding deep-sea floor. They provide shelter from predators, increased food, nurseries, and spawning areas. The New England seamounts have many rare and endemic species, several of which are new to science and are not known to live anywhere else on Earth.

### *The Ecosystem*

The submarine canyons and seamounts create dynamic currents and eddies that enhance biological productivity and provide feeding grounds for seabirds; pelagic species, including whales, dolphins, and turtles; and highly migratory fish, such as tunas, billfish, and sharks.

More than ten species of shark, including great white sharks, are known to utilize the feeding grounds of the canyon and seamount area. Additionally, surveys of leatherback and loggerhead turtles in the area have revealed increased numbers above and immediately adjacent to the canyons and Bear Seamount.

Marine birds concentrate in upwelling areas near the canyons and seamounts. Several species of gulls, shearwaters, storm petrels, gannets, skuas, and terns, among others, are regularly observed in the region, sometimes in large aggregations. Recent analysis of geolocation data found that Maine's vulnerable Atlantic puffin frequents the canyon and seamount area between September and March, indicating a previously unknown wintering habitat for those birds.

These canyons and seamounts, and the ecosystem they compose, have long been of intense scientific interest. Scientists from government and academic oceanographic institutions have studied the canyons and seamounts using research vessels, submarines, and remotely operated underwater vehicles for important deep-sea expeditions that have yielded new information about living marine resources. Much remains to be discovered about these unique, isolated environments and their geological, ecological, and biological resources.

*Whereas*, the waters and submerged lands in and around the deep-sea canyons Oceanographer, Lydonia, and Gilbert, and the seamounts Bear, Physalia, Retriever, and Mytilus, contain objects of scientific and historic interest that are situated upon lands owned or controlled by the Federal Government;

*Whereas*, section 320301 of title 54, United States Code (the "Antiquities Act"), authorizes the President, in his discretion, to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Federal Government to be national monuments, and to reserve as a part thereof parcels of land, the limits of which shall be confined to the smallest area compatible with the proper care and management of the objects to be protected;

*Whereas*, it is in the public interest to preserve the marine environment, including the waters and submerged lands, in the area to be known as the Northeast Canyons and Seamounts Marine National Monument, for the care and management of the objects of historic and scientific interest therein;

*Whereas*, the well-being of the United States, the prosperity of its citizens and the protection of the ocean environment are complementary and reinforcing priorities; and the United States continues to act with due regard for the rights, freedoms, and lawful uses of the sea enjoyed by other nations under the law of the sea in managing the canyon and seamount area and does not compromise the readiness, training, and global mobility of the U.S. Armed Forces when establishing marine protected areas;

*Now, Therefore, I, Barack Obama*, President of the United States of America, by the authority vested in me by section 320301 of title 54, United States Code, hereby proclaim the objects identified above that are situated upon lands and interests in lands owned or controlled by the Federal Government to be the Northeast Canyons and Seamounts Marine National Monument (monument) and, for the purpose of protecting those objects, reserve as a part thereof all lands and interests in lands owned or controlled by the Federal Government within the boundaries described on the accompanying map entitled "Northeast Canyons and Seamounts Marine National Monument," which is attached hereto, and forms a part of this proclamation. The Federal lands and interests in lands reserved consist of approximately 4,913

square miles, which is the smallest area compatible with the proper care and management of the objects to be protected.

The establishment of the monument is subject to valid existing rights. All Federal lands and interests in lands within the boundaries of the monument are hereby appropriated and withdrawn from all forms of entry, location, selection, sale, leasing, or other disposition under the public land laws to the extent that those laws apply, including but not limited to, withdrawal from location, entry and patent under mining laws, and from disposition under all laws relating to development of oil and gas, minerals, geothermal, or renewable energy. Lands and interest in lands within the monument not owned or controlled by the United States shall be reserved as part of the monument upon acquisition of title or control by the United States.

#### *Management of the Marine National Monument*

The Secretaries of Commerce and the Interior (Secretaries) shall share management responsibility for the monument. The Secretary of Commerce, through the National Oceanic and Atmospheric Administration (NOAA), and in consultation with the Secretary of the Interior, shall have responsibility for management of activities and species within the monument under the Magnuson-Stevens Fishery Conservation and Management Act, the Endangered Species Act (for species regulated by NOAA), the Marine Mammal Protection Act, and any other applicable Department of Commerce legal authorities. The Secretary of the Interior, through the United States Fish and Wildlife Service (FWS), and in consultation with the Secretary of Commerce, shall have responsibility for management of activities and species within the monument under its applicable legal authorities, including the National Wildlife Refuge System Administration Act, the Refuge Recreation Act, and the Endangered Species Act (for species regulated by FWS), and Public Law 98-532 and Executive Order 6166 of June 10, 1933.

The Secretaries shall prepare a joint management plan, within their respective authorities, for the monument within 3 years of the date of this proclamation, and shall promulgate as appropriate implementing regulations, within their respective authorities, that address any further specific actions necessary for the proper care and management of the objects and area identified in this proclamation. The Secretaries shall revise and update the management plan as necessary. In developing and implementing any management plans and any management rules and regulations, the Secretaries shall consult, designate, and involve as cooperating agencies the agencies with jurisdiction or special expertise, including the Department of Defense and Department of State, in accordance with the National Environmental Policy Act (42 U.S.C. 4321 *et seq.*) and its implementing regulations. In addition, the Secretaries shall work to continue advances in resource protection in the Monument area that have resulted from a strong culture of collaboration and enhanced stewardship of marine resources.

This proclamation shall be applied in accordance with international law, and the Secretaries shall coordinate with the Department of State to that end. The management plans and their implementing regulations shall not unlawfully restrict navigation and overflight and other internationally recognized lawful uses of the sea in the monument and shall incorporate the provisions of this proclamation regarding U.S. Armed Forces actions and compliance with international law. No restrictions shall apply to or be enforced against a person who is not a citizen, national, or resident alien of the United States (including foreign flag vessels) unless in accordance with international law. Also, in accordance with international law, no restrictions shall apply to foreign warships, naval auxiliaries, and other vessels owned or operated by a state



and used, for the time being, only on government non-commercial service, in order to fully respect the sovereign immunity of such vessels under international law.

### *Restrictions*

#### *Prohibited Activities*

The Secretaries shall prohibit, to the extent consistent with international law, any person from conducting or causing to be conducted the following activities:

1. Exploring for, developing, or producing oil and gas or minerals, or undertaking any other energy exploration or development activities within the monument.
2. Using or attempting to use poisons, electrical charges, or explosives in the collection or harvest of a monument resource.
3. Introducing or otherwise releasing an introduced species from within or into the monument.
4. Removing, moving, taking, harvesting, possessing, injuring, disturbing, or damaging, or attempting to remove, move, take, harvest, possess, injure, disturb, or damage, any living or nonliving monument resource, except as provided under regulated activities below.
5. Drilling into, anchoring, dredging, or otherwise altering the submerged lands; or constructing, placing, or abandoning any structure, material, or other matter on the submerged lands, except for scientific instruments and constructing or maintaining submarine cables.
6. Fishing commercially or possessing commercial fishing gear except when stowed and not available for immediate use during passage without interruption through the monument, except for the red crab fishery and the American lobster fishery as regulated below.

#### *Regulated Activities*

Subject to such terms and conditions as the Secretaries deem appropriate, the Secretaries, pursuant to their respective authorities, to the extent consistent with international law, may permit any of the following activities regulated by this proclamation if such activity is consistent with the care and management of the objects within the monument and is not prohibited as specified above:

1. Research and scientific exploration designed to further understanding of monument resources and qualities or knowledge of the North Atlantic Ocean ecosystem and resources.
2. Activities that will further the educational value of the monument or will assist in the conservation and management of the monument.
3. Anchoring scientific instruments.
4. Recreational fishing in accordance with applicable fishery management plans and other applicable laws and other requirements.
5. Commercial fishing for red crab and American lobster for a period of not more than 7 years from the date of this proclamation, in accordance with applicable fishery management plans and other regulations, and under permits in effect on the date of this proclamation. After 7 years, red crab and American lobster commercial fishing is prohibited in the monument.
6. Other activities that do not impact monument resources, such as sailing or bird and marine mammal watching so long as those activities are conducted in accordance with applicable laws and regulations, including the Marine Mammal Protection Act. Nothing in this

proclamation is intended to require that the Secretaries issue individual permits in order to allow such activities.

7. Construction and maintenance of submarine cables.

*Regulation of Scientific Exploration and Research*

The prohibitions required by this proclamation shall not restrict scientific exploration or research activities by or for the Secretaries, and nothing in this proclamation shall be construed to require a permit or other authorization from the other Secretary for their respective scientific activities.

*Emergencies and Law Enforcement Activities*

The prohibitions required by this proclamation shall not apply to activities necessary to respond to emergencies threatening life, property, or the environment, or to activities necessary for law enforcement purposes.

*U.S. Armed Forces*

1. The prohibitions required by this proclamation shall not apply to activities and exercises of the U.S. Armed Forces, including those carried out by the United States Coast Guard.

2. The U.S. Armed Forces shall ensure, by the adoption of appropriate measures not impairing operations or operation capabilities, that its vessels and aircraft act in a manner consistent so far as is practicable, with this proclamation.

3. In the event of threatened or actual destruction of, loss of, or injury to a monument resource or quality resulting from an incident, including but not limited to spills and groundings, caused by a component of the Department of Defense or the United States Coast Guard, the cognizant component shall promptly coordinate with the Secretaries for the purpose of taking appropriate action to respond to and mitigate any harm and, if possible, restore or replace the monument resource or quality.

4. Nothing in this proclamation or any regulation implementing it shall limit or otherwise affect the U.S. Armed Forces' discretion to use, maintain, improve, manage or control any property under the administrative control of a Military Department or otherwise limit the availability of such property for military mission purposes, including, but not limited to, defensive areas and airspace reservations.

*Other Provisions*

Nothing in this proclamation shall be deemed to revoke any existing withdrawal, reservation, or appropriation; however, the monument shall be the dominant reservation.

Warning is hereby given to all unauthorized persons not to appropriate, excavate, injure, destroy, or remove any feature of this monument and not to locate or settle upon any lands thereof.

*In Witness Whereof*, I have hereunto set my hand this fifteenth day of September, in the year of our Lord two thousand sixteen, and of the Independence of the United States of America the two hundred and forty-first.

BARACK OBAMA

[Filed with the Office of the Federal Register, 11:15 a.m., September 20, 2016]

NOTE: This proclamation and its attached annex were published in the *Federal Register* on September 21.

*Categories:* Proclamations : Northeast Canyons and Seamounts Marine National Monument, establishment.

*Subjects:* Commerce, Department of : Secretary; Interior, Department of the : Northeast Canyons and Seamounts Marine National Monument, establishment; Interior, Department of the : Secretary; Northeast Canyons and Seamounts Marine National Monument.

*DCPD Number:* DCPD201600596.

## Appendix B. Presidential Proclamation 10287, October 6, 2021

*Administration of Joseph R. Biden, Jr., 2021*

**Proclamation 10287—Northeast Canyons and Seamounts Marine National Monument**

*October 8, 2021*

*By the President of the United States of America*

*A Proclamation*

On September 15, 2016, President Barack Obama issued Proclamation 9496 (Northeast Canyons and Seamounts Marine National Monument), which designated approximately 4,913 square miles of waters and submerged lands where the Atlantic Ocean meets the continental shelf as the Northeast Canyons and Seamounts Marine National Monument. This designation represented the culmination of nearly a half-century of conservation efforts to preserve the vulnerable deep marine ecosystems of the Atlantic canyons and seamounts, which are widely known as natural laboratories for the long-term study of benthic ecology due to their rich biodiversity of important deep-sea corals, endangered whales, endangered and threatened sea turtles, other marine mammals, and numerous fish and invertebrate species.

The monument is composed of two units, the Canyons Unit and the Seamounts Unit, each of which showcases unique geological features that anchor vulnerable ecological communities threatened by varied uses, climate change, and related impacts. As described by Proclamation 9496, the Canyons Unit includes three underwater canyons: Oceanographer, Gilbert, and Lydonia. The canyons' hard walls, which range from 200 meters to thousands of meters deep, provide important habitats for, and support the life cycles of, a diversity of ocean life, including sponges, corals, and other invertebrates; larger species such as squid, octopuses, skates, flounders, and crabs; and highly migratory oceanic species, including tuna, billfish, sharks, toothed whales (such as the endangered sperm whale), and many species of beaked whales. The larger Seamounts Unit is home to four extinct undersea volcanoes—Bear, Physalia, Retriever, and Mytilus—that form a portion of an underwater chain of more than 30 extinct volcanoes that runs from the southern side of the Georges Bank to midway across the western Atlantic Ocean. These extinct volcanoes were formed as the Earth's crust passed over a stationary hot spot that pushed magma up through the seafloor, and many of them have flat tops that were created as ocean waves eroded the cooling magma. Geographically isolated from the continental platform and characterized by steep and complex submarine topography that interrupts existing ocean currents and provides a constant supply of plankton and nutrients, the seamounts are biological islands with various substrates that form ocean oases and act as incubators for new life. All four seamounts support highly diverse ecological communities, including many rare and endemic species that are new to science and are not known to live anywhere else on Earth. Together, the monument's submarine canyons and seamounts create the unique ecological conditions necessary to support one of the Atlantic Ocean's most biologically productive and important marine environments and one of science's greatest oceanic laboratories. Proclamation 9496 recognized the undersea canyons and seamounts, the deep-sea, pelagic, and other marine ecosystems they support, and the biodiversity they contain as objects of historic and scientific interest and dedicated the Federal lands and waters within the monuments' boundaries to their protection.

To provide for the proper care and management of the monument's objects of historic and scientific interest, Proclamation 9496 directed the Secretary of Commerce and the Secretary of the Interior (Secretaries) to prepare a joint management plan and promulgate implementing regulations, as appropriate. To the extent consistent with domestic and international law, Proclamation 9496 also directed the Secretaries to prohibit certain activities within the

monument, including mineral exploration and development; the use of poisons, electrical charges, or explosives to collect or harvest monument resources; and drilling into, anchoring, dredging, or otherwise altering submerged lands. Proclamation 9496 also directed the Secretaries to prohibit all commercial fishing within the monument, but allowed the Secretaries to permit a 7 year phase-out for red crab and American lobster commercial fishing.

Despite the monument's ecological importance, wealth of objects of historic and scientific interest, and potential for additional scientific discovery, President Donald Trump issued Proclamation 10049 (Modifying the Northeast Canyons and Seamounts Marine National Monument) on June 5, 2020, to remove the restrictions on commercial fishing. Multiple parties challenged Proclamation 10049 in Federal court, asserting that it exceeded the President's authority under the Antiquities Act. Restoring the prohibition on commercial fishing will ensure that the unique, fragile, and largely pristine canyons and seamounts, and the dynamic ocean systems and marine life they support, identified in Proclamation 9496 as objects of historic or scientific interest requiring protection under the Antiquities Act, will be safeguarded and will continue to provide an important venue for scientific study and research.

The Canyons Unit and Seamounts Unit each contain interconnected oceanographic, geologic, and biologic features that create a unique oceanic system that supports an abundant concentration of biodiversity. These features' close proximity to each other results in an interdependent whole that exceeds the sum of its constituent parts.

In the case of the Canyons Unit, the monument boundary closely corresponds to a contiguous continental shelf break area around the heads of the three canyons, which extend seaward from features that have not yet fully taken on the distinctive canyon shape, to the walls and valleys of the canyons themselves, and out to the start of the outer shelf thousands of meters below. Within this transitional region, the walls of the three closely situated canyons combine with ocean currents, temperature gradients, eddies, and fronts to create significant and complex nutrient cycling and other processes that result in a biologically rich and distinct oceanic system. The Canyons Unit is sized to correspond to and protect these large-scale oceanic processes that provide the foundation for the distinct habitat that supports numerous objects of scientific interest. For example, the shallower depths of the canyons include ecologically significant and vulnerable habitat for tilefish, which function as ecosystem engineers by creating "pueblo" habitat at depths of 100 to 300 meters in the monument's canyons, which in turn supports a diversity of fish and invertebrate species. The Canyons Unit also supports a great abundance of marine mammals and other upper-trophic level predators attracted to the prey abundance fostered by the Canyons Unit's unique marine landscape. Due to the close proximity of the three canyons to one another, congregating marine mammals and pelagic fish species routinely transit the inter-canyon areas while foraging among the biologic abundance found there. This is an example of the important ecological linkages that connect the monument's various topographies, the surrounding shelf, and the water column above them, which necessitate protection of the entire interrelated system.

In the case of the Seamounts Unit, the boundary encompasses the four seamounts and the areas between the edges of Bear and Retriever Seamounts on the north side, Bear and Mytilus Seamounts on the south side, and out to the boundary line of the Exclusive Economic Zone on the east side. These four seamounts, rising thousands of feet from the surrounding seafloor, are the only seamounts located within U.S. Atlantic waters. As with the Canyons Unit, the proximity of these important geologic features to each other influences the currents, upwelling, stratification, and mixing that make the species and habitat within the monument so diverse, abundant, and unique. The seamounts function as oases in the open ocean environment and feature distinct ecological communities as they grade down from the relatively shallow seamount peaks to the abyss below. They are critical to protecting the ecosystem linkages that transport nutrients to the surface through predator-prey interactions and temperature-driven upwelling, and transport



organic carbon to deep-sea ecosystems (corals and benthic communities) through plankton and fecal detritus, downwelling materials, down-slope currents, and animal migration and mortality.

The boundaries of the monument reflect the need to protect the canyons, seamounts, and the attendant deep-sea, pelagic, and other marine ecosystems, which are themselves objects of historic and scientific interest, as well as the complex geologic, oceanographic, and biologic characteristics in the Canyons Unit and Seamounts Unit. The monument ensures these vulnerable marine ecosystems are safeguarded and will remain the great ocean laboratories recognized in Proclamation 9496. The boundaries are closely hewn to prominent geologic objects that form the foundation of closely linked habitats, which support the monument's great abundance and diversity of life. The boundaries are scaled to avoid cascading negative effects from failing to protect parts of these complex and interconnected marine environments and their unique oceanographic processes. In order to ensure effective management and protection of the objects of historic and scientific interest, straight-line coordinates are used where possible to provide clear and enforceable demarcation of this open-ocean monument. For these reasons, Proclamation 9496 found that the lands owned or controlled by the Federal Government within the monument's boundaries were the smallest area compatible with the proper care and management of the objects of historic and scientific interest designated for protection.

Commercial fishing activity has the potential to significantly degrade the monument's objects of historic and scientific interest. Bottom-contact fishing gear and fixed fishing gear (for example, traps, gillnets, and bottom and pelagic long-line gear) with buoys, submerged lines, and associated traps, mesh, or hooks, all pose threats to the canyons and seamounts, the ecosystem, and the deep-sea, pelagic, and other marine life they support, as well as the additional objects of historic and scientific interest contained therein. Although statutes such as the Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. 1801 *et seq.*, the Endangered Species Act, 16 U.S.C. 1531 *et seq.*, the Migratory Bird Treaty Act, 16 U.S.C. 703–712, the National Wildlife Refuge System Administration Act, 16 U.S.C. 668dd–668ee, the Refuge Recreation Act, 16 U.S.C. 460k *et seq.*, the Marine Mammal Protection Act, 16 U.S.C. 1361 *et seq.*, the Clean Water Act, 33 U.S.C. 1251 *et seq.*, the Oil Pollution Act, 33 U.S.C. 2701 *et seq.*, the National Marine Sanctuaries Act, 16 U.S.C. 1431 *et seq.*, and Title I of the Marine Protection, Research and Sanctuaries Act (Ocean Dumping Act), 33 U.S.C. 1401 *et seq.*, provide important safeguards that did not exist prior to the Antiquities Act's passage, these laws do not adequately address the threats facing the canyons and seamounts and their surrounding ecosystem. The prohibition on commercial fishing confers necessary, additional, and lasting protections for the objects of historic and scientific interest in the Northeast Canyons and Seamounts Marine National Monument for current and future generations.

Protection of the Northeast Canyons and Seamounts as a marine national monument preserves significant geological features, marine biota, and deep-sea, pelagic, and other marine ecosystems that the canyons and seamounts create and support as they interact with ocean currents, ensuring that the natural and scientific values of this area are maintained for the benefit of all Americans and for the discovery of new information about living marine resources for years to come.

*Whereas*, section 320301 of title 54, United States Code (the "Antiquities Act") authorizes the President, in his discretion, to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Federal Government to be national monuments, and to reserve as a part thereof parcels of land, the limits of which shall be confined to the smallest area compatible with the proper care and management of the objects to be protected; and

*Whereas*, Proclamation 9496 designated the Northeast Canyons and Seamounts Marine National Monument in the Atlantic Ocean and reserved approximately 4,913 square miles of water and submerged lands in and around certain deep-sea canyons and seamounts situated upon lands and interests in lands owned or controlled by the Federal Government as the smallest area compatible with the proper care and management of objects of historic and scientific interest; and

*Whereas*, Proclamation 10049 modified the conditions of the Northeast Canyons and Seamounts Marine National Monument to allow commercial fishing activities, which could impact monument objects; and

*Whereas*, I find that the resources identified above and in Proclamation 9496 are objects of historic or scientific interest in need of protection under the Antiquities Act; and

*Whereas*, I find that the unique nature of the waters and submerged lands that make up the marine environment in the Northeast Canyons and Seamounts area and the collection of objects and resources therein make the entire area within the boundaries of the monument an object of historic and scientific interest in need of protection under the Antiquities Act; and

*Whereas*, I find that there are documented threats to the objects identified above and in Proclamation 9496; and

*Whereas*, I find that the objects identified above and in Proclamation 9496 are not adequately protected by applicable law and other administrative designations; and

*Whereas*, I find that the boundaries of the monument reserved by Proclamation 9496 represent the smallest area compatible with the proper care and management of the objects of historic or scientific interest; and

*Whereas*, it is in the public interest to ensure the preservation and protection of the objects of historic and scientific interest in the Northeast Canyons and Seamounts Marine National Monument;

*Now, Therefore, I, Joseph R. Biden Jr.*, President of the United States of America, by the authority vested in me by section 320301 of title 54, United States Code, hereby proclaim that, in order to provide for the proper care and management of the objects identified above and in Proclamation 9496, management of lands and interests in lands owned or controlled by the Federal Government within the Northeast Canyons and Seamounts Marine National Monument shall be governed by the management provisions of Proclamation 9496. Such provisions include paragraph 6 in the section entitled "Prohibited Activities" and paragraph 5 in the section entitled "Regulated Activities," which provide for the prohibition of all commercial fishing in the monument, except for red crab and American lobster commercial fishing, which may be permitted until September 15, 2023.

The Secretary of Commerce, through the National Oceanic and Atmospheric Administration, and the Secretary of the Interior, through the United States Fish and Wildlife Service, share management responsibility for the monument, as prescribed in Proclamation 9496. Within their respective authorities, the Secretaries shall prepare a joint management plan for the monument by September 15, 2023, and, as appropriate, shall promulgate implementing regulations that address any further specific actions necessary for the proper care and management of the objects and area identified above and in Proclamation 9496.

To the extent any provision of Proclamation 10049 is inconsistent with this proclamation or Proclamation 9496, the terms of this proclamation and Proclamation 9496 shall govern.

Warning is hereby given to all unauthorized persons not to appropriate, excavate, injure, destroy, or remove any feature of this monument and not to locate or settle upon any lands thereof.

If any provision of this proclamation, including its application to a particular parcel of land, is held to be invalid, the remainder of this proclamation and its application to other parcels of land shall not be affected thereby.

*In Witness Whereof*, I have hereunto set my hand this eighth day of October, in the year of our Lord two thousand twenty-one, and of the Independence of the United States of America the two hundred and forty-sixth.

JOSEPH R. BIDEN, JR.

[Filed with the Office of the Federal Register, 8:45 a.m., October 14, 2021]

NOTE: This proclamation was published in the *Federal Register* on October 15.

*Categories:* Proclamations : Northeast Canyons and Seamounts Marine National Monument.

*Subjects:* Environment : Conservation :: Promotion efforts; Northeast Canyons and Seamounts Marine National Monument.

*DCPD Number:* DCPD202100836.

## Appendix C. Joint Statement of Intent for Management of the Northeast Canyons and Seamounts Marine National Monument

### Joint Statement of Intent for Management of the Northeast Canyons and Seamounts Marine National Monument

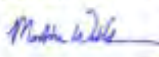
This Joint Statement of Intent will provide a framework for cooperation and coordination between the U.S. Fish and Wildlife Service's National Wildlife Refuge System (USFWS) and the National Oceanic and Atmospheric Administration (NOAA) in the protection, stewardship and associated management of the Northeast Canyons and Seamounts Marine National Monument (NCSMNM). We recognize that the authorities and responsibilities of both agencies are consistent with and supportive of the protection of the NCSMNM. We have reached a mutual understanding and it is our expectation that we will take the following steps:

1. To carry out our mutual intent to establish coordinated management and regulation of the NCSMNM through development of a collaborative and integrated management plan and permitting process for the NCSMNM;
2. To consult with each other on plans and outcomes of science and management activities regarding the species and habitats of the NCSMNM. In the spirit of cooperative management, both parties agree to regularly review and discuss research and management actions, taking into consideration the mission of both agencies, as well as respective compliance and regulatory requirements;
3. To facilitate scientific exploration and research activities within the NCSMNM;
4. To steward the story of the NCSMNM and share it with the American public.
5. To clarify that scientific or management activities undertaken by either party within the Monument are not subject to any additional requirements or authorization from the other agency, except that both parties agree to adhere to agency requirements that pre-date Monument creation.

Nothing herein is intended to conflict with any Federal law, regulation or policy. The signature of this Joint Statement of Intent does not constitute a financial obligation. NOAA and the USFWS will manage and use their own funds in carrying out their responsibilities in the NCSMNM. No funds will be transferred pursuant to this agreement.

This Joint Statement of Intent will become effective upon signature and will remain in effect until terminated by written notice from any party.

For the U. S. Fish and Wildlife Service:

  
Digitally signed by  
MARTHA WILLIAMS  
Date: 2022.05.11  
09:55:28 -04'00'

Martha Williams  
Director U.S. Fish and Wildlife Service

WENDI  
WEBER  
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WEBER  
Date: 2022.05.09  
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Wendi Weber  
Regional Director – North Atlantic-  
Appalachian Region

For the National Oceanographic and  
Atmospheric Administration:

COIT.JANET.LOUISE.1605731623  
Digitally signed by COIT JANET LOUISE 1605731623  
Date: 2022.05.11 16:15:14 -04'00'

Janet Coit  
Acting Assistant Secretary for Oceans and  
Atmosphere

Michael  
Pentony  
Digitally signed by  
Michael Pentony  
Date: 2022.05.02  
10:46:22 -04'00'

Michael Pentony  
NMFS Regional Administrator – Greater  
Atlantic

## Appendix D. Public Scoping Key Takeaways Report

# **Northeast Canyons and Seamounts Marine National Monument Management Plan Public Scoping Key Takeaways**

Prepared by Kearns & West

For the U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration

April/2023



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## Introduction and Structure of this Report

Kearns & West (K&W) was contracted by the Department of the Interior's Office of Collaborative Action and Dispute Resolution to facilitate public scoping meetings and assist with coding and categorizing statements received through public scoping sessions and the public written submissions for the U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration's (NOAA's) [Notice of Intent](#) to draft a management plan for the Northeast Canyons and Seamounts Marine National Monument. The Notice of Intent was published on December 28, 2022. This report integrates two sets of statements from the public scoping process:

- 1) Written submissions in response to the Notice of Intent, published on December 28, 2022, and open until January 31, 2023.
- 2) Oral statements and written comment cards made during the four public scoping sessions that the USFWS and NOAA held on December 6<sup>th</sup>, 9<sup>th</sup>, 12<sup>th</sup>, and 19<sup>th</sup> of 2022.

Throughout this document, a statement is referred to as a thought expressed by any individual or group through a written letter submitted in response to the Notice of Intent or a verbal statement made in the public scoping sessions. Written letters submitted were comprised of multiple statements. In all, 458 unique statements that expressed a recommendation or suggestion were identified from the written sources and 307 from verbal statements from public meetings. The project team categorized and organized these statements into overarching summaries called key takeaways throughout this document. The table below summarizes the submissions and statements the project team analyzed for this report to develop the key takeaways.

Table 1: Types of Submissions and Statements

Type of Written Submissions and Statements Summarized	Count of Written Submissions and Statements
Form Letter Submissions or largely form letters (Non-Unique Responses)	949
Total Unique Response Letter Submissions (some with attachments): includes individual letters (11), letters with multiple signatories (11)	22
Written Submissions from Comment Cards from Public Scoping Meetings	10
Written Statements Summarized from all written sources	458
Oral Statements Summarized and Public Scoping Attendees	Count of Oral Statements and Participants
Oral Statements Summarized from the Public Scoping Meetings	307

Number of Attendees in Public Scoping Meeting	117 (58 in-person, 59 virtual)
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There are 981 written submissions, including comment cards and written letters responding to the Notice of Intent. These included 949 submissions attributed as form letters (from one master form letter). The USFWS identified these letters as letters with identical content to the master form letter. Next, the project team reviewed 32 written letter submissions and 10 comment card submissions that were filled out at public scoping meetings for any unique statements. From these sources, the project team identified 458 unique written statements and 307 verbal statements that have been summarized into key takeaways in the following sections.

The submissions received were analyzed by identifying individual recommendations or statements, which were then sorted and thematically grouped into the 3 overarching categories that divide this document (Communication and Community Engagement, Monument Uses, and Best Practices for the Management Plan). The K&W project team then grouped similar statements and created descriptive summaries of the statement groupings, called key takeaways. Key takeaways were developed for statement categories with four or more similar statements. When statements related to a key takeaway were diverse in nature, the K&W project team included more detailed lists of suggestions from the written and verbal responses/submissions (for instance, for organizations that respondents suggested partnering with for the Management Plan process, we received many unique suggestions that are included as a list). Under each category, the project team identified key takeaways (39), which are numbered with bulleted examples of quotes that illustrate the takeaway.

While this report focuses on capturing recommendations for the Management Plan heard throughout the public scoping process, individuals also shared ideas, opinions and analyses that were not themselves recommendations. This report does not reference every statement included in every written or verbal response in this report. This report is meant to summarize the key takeaways and recommendations from the written submissions and verbal statements and provide examples that illustrate them. To read the verbatim written submissions and paraphrased verbal statements, please see the Scoping Meeting Supporting Documentation.

## Key Takeaways: Recommendations and Suggestions from the Public Scoping Process

### Communication and Community Engagement:

#### *Communication*

Key takeaways and example statements on how to communicate about the Monument Management Plan or how to distribute new information about the Monument (including research findings, etc.)

- 1) **Social media should be used as a platform for sharing visuals, videos, and stories to more effectively connect with a broad audience who may not be able to access the Monument directly.**
  - *[From an oral statement]: More social media content – a creature of the week, space for people to upload photos from the Monument (citizen science), think social media is a way to interact with younger audiences.*

- **[From an oral statement]:** Connect with the audience through social media - use visuals to draw people in, then connect them to a website or similar page with more in-depth information.
  - **[From an oral statement]:** Volunteer conservation is difficult for people to understand. What can work? Featuring the Monument on mainstream social media and involving celebrities like Ariana Grande. Using social media like reels featuring visuals, and submersible footage, creating quick viral clips like the Alvin remotely operated vehicle (ROV), or Ocean X which featured an octopus feeding.
- 2) **Research findings and visuals should be made publicly accessible.**
- **[From a written submission]:** "All research related initiatives in the Monument should be open and available for public viewing, with associated plans to translate scientific results into communication and outreach materials as well as curriculum-based opportunities."
  - **[From a written submission]:** "Engage government scientists and private researchers in sharing open-source data collected from the Monument for students to use for real world science projects and learning opportunities in order to help build connections to the Monument."
  - **[From an oral statement]:** Perhaps dispersing the videos and photos to universities to assist in education? Possible partnership opportunity.
  - **[From an oral statement]:** GIS information to be shared for grad students and other scientific projects.
  - **[From an oral statement]:** Photos and videos will be the way to connect people to the Monument and conduct research. Having plans in place for how to share photos and videos publicly.
  - **[From an oral statement]:** Transparency about who is funding the research.
  - **[From a written submission]:** "In addition, following up on a recommendation of the OER Review Summary report Data and Information section would provide real-time access to the monitoring data and research cruises: "Accelerate Telepresence Deployment with Low-Cost Pilots. OER should pilot low-cost telepresence solutions enabled by low-cost cloud computing and commercially available satellite internet capabilities. Piloting these activities now will inform key risks and acquisition pathways as global connectivity matures, saving time and money before large-scale procurement decisions are made. This lower-cost telepresence approach could complement the larger, ship-based (Okeanos) activities and utilize some of its infrastructure for data sharing/dissemination."
- 3) **The Management Plan should use a variety of communication methods to share information, especially regularly distributed newsletters.**
- **[From an oral statement]:** Use e-mail and newsletters to contact people interested in hearing about the Monument.
  - **[From an oral statement]:** Getting on different newsletter lists. This has worked for SubCom to reach out to a broader audience. Attend public/community events/tabling.
  - **[From an oral statement]:** Monthly update or newsletter on Management Plan changes and important topics discussed about the Monument.
  - **[From an oral statement]:** Connect through as many avenues as possible. Newsletters, news articles, social media outlets, blogs, archive information that is shared, it's easily found. Newspapers...short attention span of people, short films...almost like click bait to get people to visit your website. Short so they don't overwhelm people.

**4) The Management Plan should consider integrating the following key messages:**

- **[From a written submission]:** “The mission and purposes of our National Marine Protected Area and Sanctuary programs and efforts needs to be emphasized and prioritized over any and all uses.”
- **[From a written submission]:** “I am assuming that the draft plan will initially be integrated into a NEPA Environmental Impact Statement (EIS) for public review, most federal agencies do with their own wildlife refuge, parks, and forest plans. The project EIS should explain in detail that the environment and natural resources are the basis of our economy, NOT a gross national or domestic product figure.”
- **[From a written submission]:** “The Management Plan should include science translation to convert research and monitoring into NOAA/US FWS policies/regulations that are accessible to the concerned public and ocean users. This can overcome the tendency to be data rich, but information poor.”
- **[From an oral statement]:** Communicate its preservation. Promoting healthy species, fishes, etc.
- **[From an oral statement]:** Explaining the Monument in a more public understandable aspect, like comparing it to a “national park.”
- **[From a written submission]:** “This plan should speak in marine scientific and conservation terms NOT uses, traditional or otherwise.”
- **[From an oral statement]:** The current conditions are not a baseline; what it's like now has already been affected by fishing, climate change, etc. Need to convey that message. But more of how we can move forward from now.

*Community Engagement*

Key takeaways and supporting statements on engaging, educating, and conducting outreach with the public about the Monument.

**1) Because the Monument is physically inaccessible to most people, the Management Plan should develop creative ways for the public to visualize the wonders of this place and create a sense of connection to it. Ideas for creative engagement include publicly available live streams, virtual reality, podcasts, online videos, and webinars.**

- **[From a written submission]:** “While the Northeast Canyons and Seamounts Marine National Monument itself is not physically accessible to most people, its incredible biodiversity and, in many cases, unique and spectacular creatures and other features, present an unparalleled opportunity to engage the public and educate them about both the Monument itself and the importance of our oceans to life on Earth. The Management Plan should thus approach its public education and outreach components with a broad and creative lens, creating engagement and collaboration opportunities for communities that would foster their connection with the Monument and ocean environment.”
- **[From a written submission]:** “Because the Monument itself is difficult to physically access, the Co-Trustees should provide creative ways to connect the public to this special place. Distance learning opportunities that bring the Monument to communities may include live streams of future expeditions, such as replicating the viral success of the 2013 live video feed from the NOAA Ship Okeanos Explorer, developing virtual reality field trips to the Monument, and sharing stories via social media. Virtual exploration could bring together scientists and the public to participate remotely and in near-real time.”

- **[From a written submission]:** “The agencies should create a virtual tour using aerial and underwater photos and videos of marine life, seamounts, and canyons. This tour would allow the public to visit the Monument virtually and gain an understanding of the importance of protecting this area.”
- 2) **In addition to social media and virtual engagement opportunities, the Management Plan should create in-person, physical spaces that people can visit to connect with the Monument, including permanent and pop-up exhibits and in-person lecture series.**
- **[From a written submission]:** “Communicate the wonder of this place to the wider public, in both formal and informal settings, using multiple approaches including exhibits (permanent and traveling), education packages (for classrooms across grade levels), and both live and recorded events that reach across the Nation.”
  - **[From a written submission]:** “The agencies should create an outdoor experience in the New England region with signs, walking tours, QR codes, and more to help the public interact with the Monument, as if they were visiting it in person. Even though the experience would not be physically located in the Monument, it would help people understand the value of protecting a nearby ecosystem intimately connected to the species found in more familiar coastal waters. Finally, the agencies should promote existing Monument exhibits and encourage or support the creation of additional exhibits in informal and formal education settings alike (e.g., Aquariums, public schools).”
  - **[From an oral statement]:** Offering free, pop-up experiences that are accessible, like being free for the public. Somewhere where people can walk in and walk out, nice and easy.
  - **[From an oral statement]:** Different footage displays located for people around the city. Travel exhibits at Train Stations like Penn Station or South Station.
  - **[From a written submission]:** “The plan should establish Monument educational centers and/or exhibits in coastal states, including population centers such as Boston and New York City, as well as areas that see high tourism volumes, such as National Parks or Seashores in Maine and Cape Cod.”
  - **[From an oral statement]:** Going in person to fishery management councils, schools, and interested organizations and answering questions is the most effective way to reach people. Provide information and let them voice their opinion. Two-way conversations.
- 3) **The Management Plan should use public art to inspire a sense of connection to this special place. This can include art content, public art installations, and traveling art exhibits.**
- **[From an oral statement]:** Art Community – example – NH artist displayed Gulf of Maine Habitat through art. Another art example – A local sanctuary showed a habitat through music via orchestra mimicking whale movement.
  - **[From an oral statement]:** Also, do a kid’s art/poetry contest to engage the next generation in the beauty of the ocean. Traveling art exhibit that goes to aquariums, thinking outside the box, and maybe even hair studios to talk about plastic reductions (Oceana example). Go way beyond the regular partners; we always tap into the same ocean-loving groups.
- 4) **The Management Plan should educate people on the natural and archeological history of the Monument.**
- **[From an oral statement]:** Very interested in video (especially for things like the mammoth skull found in the Monument). Has other archaeological/historical seafloor seabed

exploration been contemplated? Is there a way to connect these places with things people are familiar with on land?

- **[From a written submission]:** “I want a video that turns back time to see the mammoths walk the Earth in the Monument.”
- **[From an oral statement]:** Need to recognize the amount of history related to the Monument. The Soundings author (Maria ?) is a geologist associated with mapping the deep sea. Connecting the discovery and mapping of canyons and their history of it needs to be brought to life. Connect with schools and students to ensure history is not forgotten.

**5) Engagement efforts should reach youth and the next generation of leaders through educational curriculums and other methods.**

- **[From an oral statement]:** Create formal and informal education content - have students learn about Monuments in their courses.
- **[From a written submission]:** “Offer virtual classroom and outreach opportunities for schools and the public to help educate children and the public about the Monument, which could include scientific expedition live streams, post-expedition educational videos, cultural awareness and connection activities, creation of curriculum and outreach materials, and storytelling.”
- **[From an oral statement]:** Youth groups and youth climate change groups, especially high school students, to champion and support climate change goals. Public and next generations' support is crucial.
- **[From an oral statement]:** Also, do a kid's art/poetry contest to engage the next generation in the beauty of the ocean.
- **[From written submission]:** “Develop marine science education for younger grade students K-12.”
- **[From an oral statement]:** Create formal and informal education content - have students learn about Monuments in their courses.
- **[From a written submission]:** “Greater real-time engagement in the research activities could be a great public engagement activity, as well as a gold mine for ocean science education. The current Ocean Exploration program telepresence streams from new places, often discovering new species, which is cool. However, a more comprehensive research telepresence could provide teachers/students/public with the hypotheses being addressed, the standard, and new technologies and methodologies being used in the research, as well as links to a ton of the supporting resources, literature, imagery, etc.”

**6) The Management Plan should take proactive steps to ensure that engagement reaches traditionally excluded communities. This includes developing accessible, multi-lingual materials, ensuring that engagement opportunities are well publicized, and ensuring that low-income communities are served.**

- **[From a written submission]:** “Second, the full promise of the Monument depends on sharing its wonders, benefits, and inspiration with everyone. This includes thoughtful preparation of multi-lingual materials as well as ensuring that meetings, outreach, presentations, programs, and opportunities to visit the Monument are well-publicized and occur at times and places where everyone can access them.”
- **[From an oral statement]:** Going into lower-income schools they don't get the chance to see places like this. Have someone be the face of it. Have it where you can spark that interest.

- **[From written submission]:** “The education and outreach component of the plan should also place priority on reaching communities that have historically had limited access to oceans, nature, and outdoor spaces.”
- **[From a written submission]:** “The Co-Trustees should also consider how to provide for equitable opportunities to experience the Monument. It is important that any public outreach and education program be accessible and inclusive, at a minimum providing educational resources in multiple languages. Education and outreach programs should also prioritize serving communities that have historically not had access to nature and open spaces, and the ocean in particular.”
- **[From a written submission]:** “Equitable access must include educational, language and cultural, and physical access. The prioritization of public education and equitable access is a great opportunity to meet the goals of President Biden’s Justice40 initiative to move forward equity concerns. The Management Plan should focus on identifying and engaging groups that have not had an opportunity to interact with marine monuments before, and enhancing interactive opportunities with those groups that are/were already engaged. For both, the Management Plan should consider a group’s ability to interact given their cultural and geographical heritage. We recommend that the Management Plan prepare accessible public education initiatives like the examples in the Papahānaumokuākea Marine National Monument (PMNM) and associated funding mechanisms to support these education and outreach initiatives... The agencies must ensure multi-lingual translation of signage and verbiage related to the Monument, culturally appropriate storytelling as informed by relevant groups, and diverse demographics of staff conducting these operations. Additionally, if public excursions to the Monument are ever provided, equity concerns need to be considered and addressed in how those excursions are carried out, and scientific excursions would benefit from live streaming or tracking of research cruises.”
- **[From a written submission]:** “Engage under-represented communities of color in Monument focused activities and in all opportunities to enhance perspectives on management, research, education, and stewardship.”
- **[From a written submission]:** “The Monument Management Plan should include a robust public education and outreach component. It is important to create and share accessible and inclusive educational resources in multiple languages that convey the incredible biodiversity of this monument to the public. In addition, the outreach and education should not be limited to New England or the Northeast. This is a national, not just a regional treasure, and people all over the country should be made aware of it. The education and outreach component of the Management Plan should prioritize serving communities that have historically not had access to nature and outdoor spaces. While the monument itself is not physically accessible to most people, we encourage NOAA and FWS to approach access to nature with a broader lens and create engagement and collaboration opportunities for communities that would foster a virtual connection with this area.”

#### *Potential Partnerships*

Statements on potential partnerships for managing the Monument.



**1) The Management Plan should develop partnerships with schools, universities, and aquariums to develop a robust public education component.**

- **[From a written submission]:** “Work with schools, aquariums, and universities to make this part of the curriculum.”
- **[From a written submission]:** “CLF recommends the Management Plan contain: A comprehensive public education and outreach program; The Monument should serve as an educational resource to connect the public with our ocean, build appreciation for its special places, and foster a sense of ocean stewardship.”
- **[From a written submission]:** “The Northeast Canyons and Seamounts Marine National Monument Management Plan should include a robust public education and outreach component.”
- **[From an oral statement]:** Regarding physical exploration. There was huge support for the Monument; keep up the support by engaging the public physically in science communities, schools, aquariums, videos, exhibits, and research trips for students potentially using retired functioning vessels.
- **[From an oral statement]:** New England has so many universities. You could get a lecture tour going as an initial public outreach to get to college students. Include stunning visuals and stories from the scientists. Reach out to those college students. There is also the Massachusetts Marine Educators Association - is there a New England or National counterpart or similar organization?
- **[From a written submission]:** “The New England and Mystic aquariums have already been engaged in the Monument for years and provide ideal opportunities for education and outreach partnerships.”
- **[From an oral statement]:** Additional partnerships should include universities to help with research activities and use their facilities for education and outreach.
- **[From an oral statement]:** High school/middle schools from more landlocked areas could visit Monuments or nearby areas.
- **From an oral statement]:** New England has an unparalleled number of academic institutions with environmental science programs, if not marine science programs. Monument should connect with those programs, so they know about this asset in their backyard.
- **[From an oral statement]:** Partnerships with regional aquariums should be amplified and formalized.
- **[From an oral statement]:** The small and large marine research facilities in New England should be included as partners. Examples are the Gulf of Maine Research Institute, Bigelow Laboratory for Ocean Sciences, Seacoast Science Center, and Manomet. If not research then public education and outreach, aquariums (like New England Aquarium and Mystic). Partners to bring the Monument alive to the public.
- **[From a written submission]:** “Additionally, FWS and NOAA should consider forming partnerships with groups like the Gulf of Maine Research Institute (GMRI) and other institutions that have connections with public school networks. They should seek opportunities to share with students information about the Monument, including live dive footage and information about new discoveries, inspiring young people with the beauty and richness of the deep sea.”

**2) The Management Plan should develop a multi-stakeholder advisory council.**

- **[From a written submission]:** “The Co-Trustees should establish a multi-stakeholder Northeast Canyons and Seamounts Monument Advisory Council similar to advisory councils established for national marine sanctuaries to promote further opportunities for communities to help guide management. Such an advisory body should have term limits and convene on a regular basis, with all meetings well publicized and open to the public.”
  - **[From an oral statement]:** Office of National Marine Sanctuaries have advisory bodies - it would be helpful to have an advisory body to help inform management and partnerships.
  - **[From an oral statement]:** A shareholder advisory body or council. One where individuals serve terms and have max terms to promote more representation of all communities. Giving communities voices who historically had no access to planning.
  - **[From a written submission]:** “The plan should establish a Resource Advisory Council (RAC) composed of volunteers and citizens representing a variety of local interests and expertise including marine science, state and local government, tribal government, cultural resources, commercial and recreational fishing, ecotourism and recreation, local businesses, conservation, and the public at large. The RAC should include a youth representative to help ensure young voices are represented in guiding the ongoing management of the Monument and development of education/outreach initiatives.”
- 3) **The Management Plan should explore partnerships with commercial fishermen to support research.**
- **[From an oral statement t]:** Potential partnership with commercial fishermen; downtime vessels collect offshore wind data. The Monument could use fishing vessels for oceanographic or biological research.
  - **[From an oral statement]:** Collaborative studies are happening with the fishing industry. When fishing is pushed out, collected data will be lost (NOAA holding).
  - **[From an oral statement]:** Commercial Fisheries Research Foundation RI (CFRF) & Cornell Extensive Group, NMFS cooperative research.
  - **[From an oral statement]:** Use the ecological knowledge from the fishermen and continue a working relationship with NMFS to help with research.
  - **[From an oral statement]:** John Williams has been there for a while. Not unusual for a fishery to do its own science. You can't do science without the fishing.
  - **[From an oral statement]:** I advocate for healthy ecosystems and oceans. Company wise: Fishermen want healthy ecosystems; we believe in balance. The ocean is getting so much smaller and so fast. We should look at how we can work together (companies, NGOs, and fishery management councils).
  - **[From an oral statement]:** Anna Mercer is heavily involved with the Northeast Region's cooperative research. The application and process are easy as vessels apply through and involve SK Grant or bycatch reductions.
- 4) **The Management Plan should ensure inter-agency coordination and collaboration, including with enforcement agencies.**
- **[From a written submission]:** “The Management Plan should include a robust process to ensure effective collaboration and coordination among federal management agencies and stakeholders. By working collaboratively, we can meet the challenges of the moment and create lasting protections for the Northeast Canyons and Seamounts Marine National Monument for generations to come.”

- ***{From an oral statement}***: Do the agencies have to reimburse each other for activities/monitoring, etc.? There needs to be partnerships and clarity for budgetary development for research and stewardship of this place. Need to build the program from a project management perspective and identify the costs needed to implement activities.
- ***[From a written submission]***: “Further, it is not only important for the Co-Trustees to successfully coordinate with each other, they must also coordinate with the numerous other relevant state and federal agencies and councils. Such coordination must address interagency coordination, including federal-agency coordination and federal-state coordination.”
- ***[From a written submission]***: “Further, the Co-Trustees should identify strategic partnerships with local enforcement agencies to coordinate enforcement actions and share resources and information.”
- ***[From a written submission]***: “We urge the Co-Trustees to work closely together and, as appropriate, adopt joint regulations that leverage the expertise and enforcement authority of each agency.”
- ***[From a written submission]***: “Further, the Co-Trustees should identify strategic partnerships with enforcement agencies such as NOAA Office of Law Enforcement, FWS Office of Law Enforcement, the U.S. Coast Guard, and any other relevant state or federal agencies to coordinate enforcement actions and share resources and information. Any existing interagency enforcement agreements should incorporate Monument rules and regulations.”

**5) The Monument Plan should consider developing partnerships with the following specific participant named organizations and stakeholder groups:**

- National Science Foundation
- Center for Coastal Studies (Providence, RI)
- Woods Hole Oceanographic Institute
- Ocean Life Institute at Woods Hole
- University of Rhode Island Marine program
- Conservation Law Partners
- Massachusetts Environmental Justice Councils
- National Marine Life Center
- New England Aquarium
- National Marine Life Center
- Commercial Fisheries Research Foundation
- Cornell Cooperative Extensive
- Gulf of Marine Research Institute
- Bigelow Laboratory for Ocean Sciences
- Seacoast Science Center
- Manomet
- Gulf of Maine Research Institute
- Joint Area of Operations (JAO) Offices

## Uses of the Monument:

### *Suggested Uses*

**Statements concerning currently prohibited uses that respondents would like to see revised or reconsidered in the Management Plan.**

**1) The commercial fishing industry believes that the Monument Plan should include commercial fishing as a permitted use.**

- **[From a written submission]:** "I hope that Offshore Lobstering with traps will be permissible in the Monument area. In the mid 70's I owned & operated an Offshore Lobster boat out of Nantucket, MA. The guys with the bigger vessels were heading further East all the time out Lydonia, Welkes, & Nygren way. Offshore lobster trapping has zero negative effect on the canyons other than occasional lost trap or trawl. Those traps represent a good deal of investment and lobstermen HATE to lose them so a great deal of effort is put into estimating where bad weather may have dragged them. Point being a lost trap or trawl is far from ignored. I want to make the respectful point that while I am all for National Parks and properly managed conservation, let's NOT lock the Offshore Lobstermen out of one of their most productive areas as they pose no risk to conservation of area."
- **[From a comment card]:** Are you allowed to reconsider prohibited activities or further restrict activities in the Monument? Or if it's found that fishing does not impact certain activities, could that be allowed in the future? There are a lot of needs that need to be balanced and need to be scientific about determining future prohibitions/allowances.
- **[From a written submission]:** "I just wanted to say that I am all for the preservation of this beautiful resource. However, I do believe that any rule making that is adopted should in no way impede the ability to fish this resource while following existing federal limitation and size requirements. Under no circumstances should areas of the northeast canyons be restricted, closed, or designated no fishing areas. This is freedom and liberty. Almost all of us out there are cognizant of our responsibilities to our environment and our fisheries. Existing fisheries management protocol should be the only methodology to preserve species."

### *Recreation*

**Statements on the role of recreation, needs for recreation planning in the Monument.**

**1) The Management Plan should consider the impacts of recreational fishing compared to commercial fishing. The Management Plan should include, at minimum, a monitoring plan for recreational fishing, but may consider banning recreational fishing entirely.**

- **[From an oral statement]:** It would be nice to know what recreational fishers are taking... Volume, species, frequency, sizes, bycatch, bycatch mortality.
- **[From an oral statement]:** Can stop draggers, pull traps, everything will be more abundant – if you stop all of that, you have to stop it for everyone, all or nothing ban on fishing.
- **[From an oral statement]:** Concerns about the impact of recreational fishing (tying up to the commercial buoys, big carbon footprint, debris in the water, engine noise/air pollution, etc.). Specifically, from tournament weekends and the big boats that come along with that. Consider prohibiting recreational fishing as well.
- **[From an oral statement]:** If it can't be phased out – could there be observers, especially on for-profit fleets... could look at hooking

## Exploration

Statements on what should be explored in the Monument.

- 1) **The Management Plan should inventory, identify, and minimize impacts on cultural, historical, archaeological, and natural resources within the Monument.**
  - **[From a written submission]:** *“The Co-Trustees should undertake comprehensive inventories of the natural, historic, and cultural resources contained in the Monument.... Further, conducting a baseline inventory of the Monument’s cultural and historic resources will guide actions to preserve and expand awareness of the maritime heritage associated with the Monument. Such baseline inventories should also include a plan to track changes occurring among the Monument’s resources, and identify, avoid, and minimize threats to those resources.”*
  - **[From a written submission]:** *“The Monument Management Plan should include research and planning to encompass any historical and cultural heritage both in educational initiatives and in permitted uses of the Monument area. Indigenous Peoples have always held important roles in protecting and stewarding the ocean. The Management Plan should reflect and uphold Indigenous perspectives, voices and knowledge.”*
  - **[From a written submission]:** *“The Monument Management Plan should include a scientific exploration and research plan for expanding our understanding of the many diverse forms of ocean life in the monument, from the surface of the ocean to the seafloor and in the water column in-between... The Northeast Canyons and Seamounts Marine National Monument Management Plan should include a comprehensive inventory of these natural resources, as well as of historic or prehistoric remains (like those of the woolly mammoth at the head of one of the canyons) and any relevant cultural resources. It should also include a plan for periodically updating this inventory as scientific research results in greater understanding of the resources within the monument.”*
  - **[From a written submission]:** *“The Management Plan for Northeast Canyons and Seamounts Marine National Monument should prioritize conservation that protects the Monument’s unique ecosystem and biodiversity, provides opportunities to study its natural and cultural resources and climate impacts, and proactively engages the public to connect with and understand its wonders.”*
- 2) **The Management Plan should include exploration resources and a plan for surveying and mapping the topography and other geological features of the Monument.**
  - **[From an oral statement]:** *There is lots to explore with the unique topography of major geological features and the canyon’s drop off areas.*
  - **[From a comment card]:** *Seamounts may be viewed differently than canyons.*
- 3) **The Management Plan should explore identifying and mitigating impacts to the Monument, including impacts from climate change, and exploring long-term benefits to this protection.**
  - **[From a written submission]:** *“An effective Management Plan will help ensure important opportunities to study and mitigate the impacts of climate change to the Northwest Atlantic, and to educate the public about the wonders the Monument contains.”*
  - **[From a written submission]:** *“[Organization] recommends the Management Plan contain: An inventory of the Monument’s resources with a plan to identify, avoid, and minimize any*

*impacts to those resources; Protecting the health and integrity of the Monument's resources should be a Management Plan priority."*

#### *Research*

Statements on what should be researched in the Monument/what has already been researched and should be used to support Management Plan.

**1) The Monument is a "living laboratory" and should be used as a control group for marine research, which will especially be relevant to spillover effects.**

- *[From an oral statement]: Is it a nursery ground? I would like to know. Only done 9 or 10 surveys. Surveys are expensive and time inducing to run. They only cover a tiny snapshot of time. It would be great to survey an undisturbed place.*
- *[From a public meeting participant]: Climate change impacts – migration into different thermal habitats. Treat the area as a baseline ecological zone to track over time – treat as an experiment over time.*
- *[From an oral statement]: Exploration of spillover – enrich neighboring areas for fishing grounds – connectivity to neighboring areas.*
- *[From an oral statement]: By protecting this area, does that increase the fishing success outside of the protected area? That could be interesting to see and may help make the fishermen advocates of the Monument if they see the benefit. Specifically, spillover at the boundaries should be monitored and explored.*

**2) Monument research should consider the historical data available and be ongoing and long-term to ensure historical research is available in the future.**

- *[From an oral statement]: The impact of climate change, fisheries, biodiversity hotspots, ocean life in general, new organisms, especially new corals. Long-term monitoring will be good to understand all effects, including activities usages, permitting, vessel monitoring, operation plans, and collaboration among locals.*
- *[From a written submission]: "To ensure the Management Plan reflects accurate and comprehensive data on the NCSM ecosystem, we recommend that the agencies assess all previous data collection efforts in this region and work from this foundation to design future data collection efforts. We also recommend that the agencies prioritize obtaining and allocating the resources needed for data collection via various methods (e.g., aerial survey, boat-based, remotely operated, passive acoustics, etc.) in the Monument. The data collected by the Aquarium and others represent valuable assets that can be used to assess threats to the Monument ecosystem. Ongoing and future research can help us understand ecosystem features that support areas of elevated biodiversity and how to protect these areas in a changing climate."*
- *[From an oral statement]: Research still undergoing on plastic microplastic. We do not know the overall effects of plastic yet, in humans, wildlife and plants. Keep researching over time.*

**3) A baseline environmental assessment of the Monument should ensure long-term ecological and geographical monitoring accuracy. The baseline should assess health, biodiversity, species richness, and effects of human impacts.**

- *[From an oral statement]: Also, develop a set of metrics or indicators of the health of the Monument and collect it and observe it over time. Get an idea on how the Monument looks now and how that change over time. Data such as temperature, etc.*

- **[From an oral statement]:** Exploring biodiversity; trying to ID as much as possible; understanding known/unknown species, ecosystems, the status of populations; impacts, and research.
  - **[From a written submission]:** "A plan for conducting a comprehensive inventory of the Monument's natural and cultural resources and for assessing the activities occurring in the Monument."
- 4) **Research should focus on assessing the impacts of human interference, particularly climate change, on species richness and geology.**
- **[From an oral statement]:** Other geological monitoring should include measuring temperature, salinity, CO2 level, dissolved oxygen measurements. Another big concern is food chains, the Gulf of Maine food webs are shifting based on availability and global change.
  - **[From a written submission]:** "The research plan should also provide for the study of the impacts of climate change in the monument. Marine protected areas are a key tool for maintaining, restoring, and enhancing ecosystem resilience in a changing climate. The Monument's large size and protected status help make it an incredible living laboratory that can contribute to society's understanding of both the rich biodiversity of the deep sea, as well as the impacts of climate change on ocean wildlife and habitats. Research conducted within the monument also should be designed to inform future monument management decisions."
  - **[From an oral statement]:** Monitoring: study contaminants in the area, what comes through now that it is not disturbed and if there are contamination events from recreational fishing. Marine traffic can still deposit waste (nuclear) - how is this being monitored, tied together both from a research area and from a commercial aspect. Are military vessels discharging nuclear waste or other waste into Monument waters?
- 5) **Monitoring species such as seabirds, marine mammals, and corals should be a priority research effort.**
- **[From a written submission]:** "Would be great to research: endangered species, marine mammals, abundance of species fished outside the Monument, connectivity to other canyons."
  - **[From an oral statement]:** Beyond the research that fishermen do, there isn't a lot of research that is specific to the Monument. I recommend that more research/monitoring be done in the area that's not just on an annual basis (such as the aerial survey) to truly understand what is using the Monument.
  - **[From an oral statement]:** Acidity and how that affects shellfish and coral are things we need to monitor in the Monument.
- 6) **Aerial monitoring should be used to monitor species.**
- **[From an oral statement]:** Great amount of information of aerial survey and information, make sure to use that data to its max so we don't lose that info. Try to track things important...species composition, abundance of indicator species particular to shelf areas. Does it indicate the canyons are a refuge for species?
  - **[From an oral statement]:** Aerial tracking - monitoring needs to make sure usage including vessels is carefully monitored because of migrations.
- 7) **The Management Plan should explore ways for the fishing community to use their knowledge to support research in the Monument.**



- **[From an oral statement]:** Potential for partnerships for the fishing industry. Does that amount for physical offset? Core values are "collaboration." It is preferred if fishers are not alienated.
  - **[From an oral statement]:** Partnerships could be devoted to working with the fishing industry to help strengthen stewardship moving forward. Important to reach out to folks that may not be fully on board with the Monument to engage as partners in new ways.
  - **[From an oral statement]:** Prior to the Monument being declared, most research in this area was related to commercial fisheries. Are there plans to continue commercial fisheries research in the area? A lot of existing information comes from surveys conducted for commercial fishing purposes. How will we know if the Monument protections are working in their mission to protect species? There is healthy debate on whether marine areas lead to spillover effects.
- 8) **The Management Plan should include a scientific monitoring, exploration, and research strategy that seeks to safeguard the biodiversity in the Monument. It should facilitate and support a robust research program to document the dynamics and distribution of biodiversity at all levels, within habitats, and across depth zones.**
- **[From an oral statement]:** Census of biodiversity in regard to human uses over time including shipwrecks, water health, plastic pollutions, on species especially endangered or threatened species.
  - **[From a written submission]:** "The Monument safeguards irreplaceable features, unique habitats, and both threatened and abundant marine biodiversity at a time when our oceans are undergoing rapid changes from climate change and suffering from the biodiversity crisis. In addition to providing a critical refuge for marine wildlife affected by these changes, the Monument can inspire generations of Americans with an example of what functioning ecosystems look like and what healthy and biodiverse marine habitat can be. A strong, clear, and effective plan that prioritizes conservation is essential to protecting this place for those generations."

### *Enforcement*

Statements on how to enforce and what should be enforced in the Monument.

- 1) **The Management Plan should establish an effective monitoring and enforcement program to ensure compliance with Monument rules and regulations of permitted and prohibited activities. There is a need to clarify the resources available to ensure the safety of the Monument and ensure a publicly available comprehensive plan. Periodic updating of the assessment should be required during the life of the Management Plan.**
- **[From a written submission]:** "The Management Plan should include a list of these specifically prohibited activities, so it is absolutely clear to the public, the private sector and enforcement entities that these activities are not allowed. The Management Plan also should include an effective monitoring and enforcement program to ensure compliance with the proclamation prohibitions and any agency regulations governing monument activities. To aid in this monitoring and enforcement system, the Management Plan should require that all vessels have their AIS turned on at all times while transiting through or operating within the monument. In addition, all commercial fishing vessels should have their VMS systems operating when transiting through the monument. This will assist the Coast Guard and NOAA in monitoring activity to help ensure that monument prohibitions

and regulations are complied with. The availability of AIS data specifically will serve public transparency about the use of this national treasure.”

- **[From an oral statement]:** Assessment of the extent of allowable activities or assessment of permitted activities occurring in the Monument - getting a better handle on the extent and use of the area by activities that are allowed under the Proclamation.
- 2) **The Management Plan should establish procedures to ensure effective collaboration and coordination among all Federal agencies regarding enforcement activities. Collaboration should also be done with locals and Co-Trustees.**
- **[From a written submission]:** “Finally, it is vitally important that the Co-Trustees work together to adopt strong and clear regulations that enforce the regulations and the prohibitions governing harmful industrial activities, including commercial fishing, within the Monument. These joint regulations should prioritize clear definitions of prohibited activities and include robust and detailed monitoring and enforcement measures, allocating and providing the resources and funding to carry them out.”
  - **[From a written submission]:** “The action plan [to inventory the Monument's resources] should also assess current impacts to the Monument and address how the Co-Trustees will minimize such impacts.”
- 3) **The Management Plan should adopt strong and clear regulations that protect the Monument from harmful industrial activities or commercialism, including commercial fishing or oil industry activities.**
- **[From an oral statement]:** Monitoring recreational fishing, enforcement, keep an eye on level of fishing happening.
  - **[From a written submission]:** “Please keep the Monument free of any commercialism whatsoever... no energy companies, no oil companies... keep all those leeches away from it.”
- 4) **All vessels operating within or near the Monument should be required to operate with AIS for real-time monitoring.**
- **[From an oral statement]:** Vessels should have AIS on if they are traveling through the Monument. The public and agencies need to be able to monitor their presence. They need to be able to be identified.
  - **[From a written submission]:** “Need to have good monitoring and enforcement so there are not illegal activities going on in the Monument. So as was mentioned AIS being turned on would be really important. And back to the research, even having a solid research plan so that it gets executed and we know how the monument functions is critical to stewardship.”
- 5) **The Management Plan should provide permitting or other regulatory controls of activities where necessary to protect Monument resources. A permitting system for allowable activities should be established.**
- **[From a written submission]:** “The Management Plan should include a permitting system for all allowable public activities as well as an effective monitoring and enforcement program to ensure compliance with the Proclamations’ prohibitions, agency rules and regulations, and the plan itself to ensure the public’s interest and purposes of the Monument are protected as intended.”
  - **[From a written submission]:** “Similar to existing monuments, the Management Plan should identify a combination of management measures including monitoring, enforcement, zoning, permit authorization, regulations, and conservation plans to manage

human activities.... The Secretaries have experience issuing joint implementing regulations, under their respective statutory authorities, to codify the prohibitions and management measures set forth in a presidential proclamation establishing a marine national monument... The Co-Trustees should establish an effective monitoring and enforcement program to successfully protect and maintain the Monument and to ensure compliance with applicable rules and regulations. Such a program should deter unlawful activities—including through the development of significant penalties—and address any challenges in patrolling a large, remote, and ecologically sensitive area. The Management Plan should include strategies to ensure adequate year-round monitoring and enforcement across all four seasons. To aid monitoring and enforcement efforts, Co-Trustees should utilize data collected through vessel traffic systems and other relevant technology. Importantly, vessels should be required to have automated tracking systems (AIS) turned on when transiting throughout the Monument. Co-Trustees should also establish below-surface monitoring plans to ensure successful resource protection, such as with acoustic buoys (e.g., alerting vessels of below-surface marine mammal presence).... An effective permitting program for these activities, coupled with robust monitoring and enforcement programs, will help ensure compliance to effectively safeguard the Monument. Those seeking to conduct a regulated activity within the Monument should be required to apply through the permitting program; prior to approval, Co-Trustees should demonstrate that permits will not cause significant harm to the Monument and its resources. Permit application should also be made available for public comment least 15 days. Not only is a detailed, integrated permit program critical to ensure the long-term protection of the Monument, but public participation in the permitting process including permit application, evaluation, and granting is both necessary and routine.”

### Best Practices for the Management Plan:

#### *Planning Resources*

**Statements on legal considerations, lessons learned from other Management Plans and documents.**

- 1) The Management Plan should utilize other Marine National Monuments as examples to inform the Management Plan.**
  - **[From an oral statement]:** Looking at the research from the Papahānaumokuākea Marine National Monument regarding spillover effect. The anglers there seem to not be thrilled, but it has improved fishing in areas around the Monument.
  - **[From a written submission]:** “Papahānaumokuākea Marine National Monument (PMNM) provides an effective example of how to carefully consider public access in Marine Monument planning. PMNM has a webpage specifically dedicated to public access. Within this page, there is a virtual tour that takes participants through the uniqueness of the geography and the biodiversity housed within its boundaries. This page also promotes aquariums, museums, and learning centers that teach about PMNM or relevant pieces of the PMNM. Finally, Hawaii houses multiple outdoor experiences that highlight information about PMNM, including interactive signs and apps in other related outdoor regions.”

- *[From a written submission]: " In particular, activities and outcomes associated with the Fifth International Marine Protected Areas Congress, IMPAC5, may benefit the Management Plan. For example, incorporating Indigenous ways of knowing, learning from indigenous protected and conserved areas, and understanding the connections between art, culture and ocean are a few of the planned priority areas of discussion for the Congress and will yield opportunities to bring the best in marine protected area design to the Management Plan."*
- 2) **The Management Plan should establish a duty of care, goals, and objectives necessary to meet the public interests and purposes of the Monument articulated in the 2016 and 2021 Proclamations.**
- *[From a written submission]: "The Monument is a national treasure that must now have a clearly defined and comprehensive Management Plan. As the Co-Trustees embark on the development of a Management Plan, it is critical to keep front of mind the recent recommendation from scientists worldwide: We must set aside at least 30% of land and ocean by 2030 to stem biodiversity loss and build resilience against climate change. President Biden embraced this call when he restored protections to the Monument in 2021, and the Management Plan should likewise prioritize conservation outcomes that protect biodiversity and address the climate crisis to ensure the area will flourish. Marine protected areas are a key tool for maintaining, restoring, and enhancing ecosystem resilience in a changing climate, and the canyons and seamounts provide strong and permanent protection to their highly vulnerable species and ecosystems."*
  - *[From a written submission]: "As the Co-Trustees embark on the development of a Management Plan, it is critical to keep front of mind the recent scientific recommendation to set aside at least 30% of land and ocean by 2030 to stem biodiversity loss and build resilience against climate change. President Biden embraced this call when he restored protections to the Monument in 2021, and the Management Plan should likewise prioritize conservation outcomes that safeguard biodiversity and build climate resilience. Particularly given the highly vulnerable nature of some organisms found in the Monument—that frequently have long recovery times and extremely low resilience because of their longer lifespans, later sexual maturity, and slower growth rates relative to their shallow-water counterparts—a strong Management Plan will be essential to support the permanent protection of these offshore marine wonders.... The Co-Trustees must develop a Management Plan necessary for the proper care and management of the Monument. The Management Plan should thus clearly define the prohibited and regulated activities."*

#### *Responsive Management Practices*

Statements regarding how to actively manage environmental quality issues, such as restoration activities, marine debris, or other remediation activities.

- 1) **The Management Plan should utilize adaptive management strategies and complete regular updates to Monument regulations and plans.**
- *[From a written submission]: "The Management Plan should provide managers with an iterative and adaptive management framework, based on regular evaluation of management efforts and tactics towards meeting the plans' goals and objectives. The Management Plan should include the requirement to review and update the Management Plan periodically – at minimum every 10 years given rapidly changing ocean conditions*

due to climate change. We recommend that the first review and update occur within five years of plan adoption in order to adapt the plan to the first data and research results under the plan, including first systematic efforts to inventory the natural and cultural resources contained in the Monument.”

- **[From a public meeting participant]:** Encourage adaptive management based on scientific findings.

**2) The Monument should be managed to ensure its preservation and protection.**

- **[From a written submission]:** “Simply put I'd like to see this area managed for abundance with a very conservative Management Plan. Changing conditions in our ocean like climate change, varying abundances of forage fish, and commercial fishing pressure have me concerned about our inshore and offshore fisheries. A conservative approach would be appreciated. Access to abundant fisheries truly drives access and a highly economic value.”
- **[From a written submission]:** “The area should be fully protected from incompatible extractive uses and activities. This would include commercial and recreational fishing and oil and gas drilling, mineral mining and any sediment removal. Ocean disposal of contaminated dredged material and sewage waste should also be prohibited.”

#### *Management Plan Updates*

Statements on when or how to update the Management Plan.

**1) The Management Plan should establish a formal process to update the Management Plan periodically, at least every ten years. A comprehensive assessment of human uses, water quality, habitat, living marine resources, cultural resources, and ecosystem services of the Monument should precede such a review.**

- **[From a written submission]:** “[Organization] recommends the Management Plan contain: A requirement to review and update the Management Plan periodically, at least every 10 years, if not sooner. An integral part of any management process is the routine review and evaluation of the Management Plan itself to ensure progress towards its goals and objectives. A formal review should occur at least every 10 years with such a review preceded by a comprehensive assessment of the status of human uses, water quality, habitat, living marine resources, cultural resources, and ecosystem services of the monument as well as enforcement of the monument's rules and regulations. This assessment should be used to inform a new draft plan that addresses the issues and threats that surface, and the draft plan should be made available for public comment any final revisions are made. Such a review enables adaptive management and will ensure the Co-Trustees are able to nimbly address impacts from regulated activities, climate change, or other to-be-identified stressors.”
- **[From a written submission]:** “At a minimum, the Co-Trustees should comprehensively revisit the Management Plan at least every 10 years to ensure that the assumptions and conditions animating its initial measures are still relevant and based on the best available scientific information.”

#### *Economic Impacts*

Economic development, financial compensation, livelihoods.

**1) The Management Plan should compensate fishermen who will lose their livelihood following the Monument designation. There is a need to undertake additional research**

surrounding fishing, including analyzing the influence of fishing in the Monument, understanding the economic tradeoff, and how these changes will impact local communities.

- *[From an oral statement]: If we are interested in supporting those impacted by the Monument, consider compensating those who will be unemployed due to not being able to fish in the area anymore (as well as making it not feasible to fish east of the Monument, as it doesn't make sense to transit that far if they can't fish within the Monument).*
- *[From an oral statement]: This is a matter of Survival. We depend upon it. We have a life of our own and it is being challenged.*

## Appendix: Written Comments Received During Public Scoping

All written comments received during the public scoping for the Northeast Canyons and Seamounts Marine National Monument Management Plan.



**[EXTERNAL] Northeast Canyons and Seamounts**  
Mon 12/5/2022 8:34 AM

To: NCSMNM Planning, FW5 ncsnmn planning@fws.gov

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

As a New England resident, protecting our iconic ocean and all of the treasures within it is very important to me. I'm writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I'm proud of this special place being a part of New England, and want to see it protected and thriving forever.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
- A scientific exploration and research plan that includes research on the impacts of climate change on the monument;
- A plan for conducting a comprehensive inventory of the monument's natural and cultural resources and for assessing the activities occurring in the monument;
- An effective monitoring and enforcement program to ensure compliance with Monument rules and regulations;
- A permitting system for allowable activities;
- A requirement to review and update the management plan periodically, at least every 10 years if not sooner. Such a review should be preceded by a comprehensive assessment of human uses, water quality, habitat, living marine resources, cultural resources and ecosystem services of the monument; and
- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,



**[EXTERNAL] I wish to stand up for the Northeast Canyons and Seamounts Marine National Monument**

Mon 12/5/2022 8:56 AM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

As a New England resident, protecting our iconic ocean and all of the treasures within it is very important to me. I'm writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I'm proud of this special place being a part of New England, and want to see it protected and thriving forever. To implement this protection is a step toward the goal of protecting a third of the world's ocean areas in order to protect critical species and habitat, and the Canyons and Seamounts are truly worthy of this permanent protection!

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
- A scientific exploration and research plan that includes research on the impacts of climate change on the monument;
- A plan for conducting a comprehensive inventory of the monument's natural and cultural resources and for assessing the activities occurring in the monument;
- An effective monitoring and enforcement program to ensure compliance with Monument rules and regulations;
- A permitting system for allowable activities;
- A requirement to review and update the management plan periodically, at least every 10 years if not sooner. Such a review should be preceded by a comprehensive assessment of human uses, water quality, habitat, living marine resources, cultural resources and ecosystem services of the monument; and
- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,



**[EXTERNAL] Northeast Canyons and Seamounts**  
via [us.advocacymessaging.org](https://us.advocacymessaging.org)

Mon 12/5/2022 9:02 AM

To: NCSMNM Planning, FW5 <[ncsmnm\\_planning@fws.gov](mailto:ncsmnm_planning@fws.gov)>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

As a RI resident, protecting the health of our ocean and its ecosystem that provide us with important resources is very important to me. I'm writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I want to see it protected and thriving forever.

The Canyons and Seamounts MUST have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
- A scientific exploration and research plan that includes research on the impacts of climate change on the monument;
- A plan for conducting a comprehensive inventory of the monument's natural and cultural resources and for assessing the activities occurring in the monument;
- An effective monitoring and enforcement program to ensure compliance with Monument rules and regulations;
- A permitting system for allowable activities;
- A requirement to review and update the management plan periodically, at least every 10 years if not sooner. Such a review should be preceded by a comprehensive assessment of human uses, water quality, habitat, living marine resources, cultural resources and ecosystem services of the monument; and
- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,



**[EXTERNAL] Northeast Canyons and Seamounts**  
Mon 12/5/2022 9:14 AM

To: NCSMNM Planning, FW5 ncsnmn planning@fws.gov

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

As a New England resident, protecting our iconic ocean and all of the treasures within it is very important to me. I'm writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I'm proud of this special place being a part of New England, and want to see it protected and thriving forever.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

-----I have been to the Cape many times having lived in MA for 46 years. Our oceans and their inhabitants are in trouble and while I applaud the National Monument designation by Obama, it is imperative to do all that is possible to maintain their health. I am not an expert but I know the importance of oceans and all waterways thus I hope you will follow the suggested guidelines listed below. It is a sad thing that nature is required management as it does it so well when left alone but people have interfered and it is now a necessity,----

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
- A scientific exploration and research plan that includes research on the impacts of climate change on the monument;
- A plan for conducting a comprehensive inventory of the monument's natural and cultural resources and for assessing the activities occurring in the monument;
- An effective monitoring and enforcement program to ensure compliance with Monument rules and regulations;
- A permitting system for allowable activities;
- A requirement to review and update the management plan periodically, at least every 10 years if not sooner. Such a review should be preceded by a comprehensive assessment of human uses, water quality, habitat, living marine resources, cultural resources and ecosystem services of the monument; and
- Procedures to ensure effective collaboration and coordination among federal management agencies.



Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,



**[EXTERNAL] Northeast Canyons and Seamounts**  
via [us.advocacymessaging.org](https://us.advocacymessaging.org)

Mon 12/5/2022 9:40 AM

To: NCSMNM Planning, FW5 <[ncsmnm\\_planning@fws.gov](mailto:ncsmnm_planning@fws.gov)>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

As a New England resident, protecting our iconic ocean and all of the treasures within it is very important to me. I'm writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I'm proud of this special place being a part of New England, and want to see it protected and thriving forever.

I am also very concerned at the general state of the world's oceans, including New England's waters. Between the impacts of climate change, plastic, chemical, and noise pollution, ghost fishing gear and other human debris, overfishing and bycatch, our oceans are in desperate need of meaningful and effective protections.

The U.S. Fish and Wildlife Service must ensure that these much-needed protections are forthcoming.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth in President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
- A scientific exploration and research plan that includes research on the impacts of climate change on the monument;
- A plan for conducting a comprehensive inventory of the monument's natural and cultural resources and for assessing the activities occurring in the monument;
- An effective monitoring and enforcement program to ensure compliance with Monument rules and regulations;
- A permitting system for allowable activities;
- A requirement to review and update the management plan periodically, at least every 10 years if not sooner. Such a review should be preceded by a comprehensive assessment of human uses, water quality, habitat, living marine resources, cultural resources and ecosystem services of the monument; and

- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,



**[EXTERNAL] Northeast Canyons and Seamounts**  
via [us.advocacymessaging.org](https://us.advocacymessaging.org)

Mon 12/5/2022 10:14 AM

To: NCSMNM Planning, FW5 <[ncsmnm\\_planning@fws.gov](mailto:ncsmnm_planning@fws.gov)>

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Dear Superintendent Petersen,

I grew up in New England, and its natural beauty is in my blood. Protecting it, including our iconic ocean and all of the treasures within it is very important to me. I'm writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I'm proud of this special place being a part of New England, and want to see it protected and thriving forever.

In addition to its beauty, New England's oceans are a rich site of biodiversity, which is critical to the survival of the ocean ecosystem, and by extension, all ecosystems in the region. Even our own lives and health depend on it, as all life on Earth is interconnected and interdependent, often in ways we have not yet discovered.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
- A scientific exploration and research plan that includes research on the impacts of climate change on the monument;
- A plan for conducting a comprehensive inventory of the monument's natural and cultural resources and for assessing the activities occurring in the monument;
- An effective monitoring and enforcement program to ensure compliance with Monument rules and regulations;
- A permitting system for allowable activities;
- A requirement to review and update the management plan periodically, at least every 10 years if not sooner. Such a review should be preceded by a comprehensive assessment of human uses, water quality, habitat, living marine resources, cultural resources and ecosystem services of the monument; and
- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,



**[EXTERNAL] Northeast Canyons and Seamounts**  
via [us.advocacymessaging.org](https://us.advocacymessaging.org)

Mon 12/5/2022 11:26 AM

To: NCSMNM Planning, FW5 <[ncsmnm\\_planning@fws.gov](mailto:ncsmnm_planning@fws.gov)>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

As a New England resident, protecting our iconic ocean and all of the treasures within it is very important to me. I'm writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I'm proud of this special place being a part of New England, and want to see it protected and thriving forever.

And please know, I am asking this for all our children and grandchildren. I won't be here, but they will. Your management plan means the world to them.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
- A scientific exploration and research plan that includes research on the impacts of climate change on the monument;
- A plan for conducting a comprehensive inventory of the monument's natural and cultural resources and for assessing the activities occurring in the monument;
- An effective monitoring and enforcement program to ensure compliance with Monument rules and regulations;
- A permitting system for allowable activities;
- A requirement to review and update the management plan periodically, at least every 10 years if not sooner. Such a review should be preceded by a comprehensive assessment of human uses, water quality, habitat, living marine resources, cultural resources and ecosystem services of the monument; and
- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,





## [EXTERNAL] Northeast Canyons and Seamounts Marine National Monument management plan

Mon 12/5/2022 12:08 PM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

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Dear Superintendent Petersen,

Coming from a family of watermen, a lifelong environmentalist, and a New England resident, protecting our iconic ocean and all of its treasures is very important to me. I'm writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I'm proud of this remarkable place being a part of New England, and want to see it protected and thriving forever.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth by President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
- A scientific exploration and research plan that includes research on the impacts of climate change on the monument;
- A plan for conducting a comprehensive inventory of the monument's natural and cultural resources and for assessing the activities occurring in the monument;
- An effective monitoring and enforcement program to ensure compliance with Monument rules and regulations;
- A permitting system for allowable activities;
- A requirement to review and update the management plan periodically, at least every 10 years if not sooner. Such a review should be preceded by a comprehensive assessment of human uses, water quality, habitat, living marine resources, cultural resources and ecosystem services of the monument; and
- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,



## [EXTERNAL] Management plan for the Northeast Canyons and Seamounts Marine National Monument

Mon 12/5/2022 12:30 PM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

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Dear Superintendent Petersen,

As a New Englander, the Atlantic coast and ocean have been a vital part of my life. It is therefore very important to me that we do all that we can to protect as much as we can of this vital resource.

For that reason, I'm writing today to urge you to create the most thorough and comprehensive management plan possible for the Northeast Canyons and Seamounts Marine National Monument - a plan that ensures that this area will be protected for future generations, and one that realizes the vision, mission, and guiding principles set forth in President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
- A scientific exploration and research plan that includes research on the impacts of climate change on the monument;
- A plan for conducting a comprehensive inventory of the monument's natural and cultural resources and for assessing the activities occurring in the monument;
- An effective monitoring and enforcement program to ensure compliance with Monument rules and regulations;
- A permitting system for allowable activities;
- A requirement to review and update the management plan periodically, at least every 10 years if not sooner. Such a review should be preceded by a comprehensive assessment of human uses, water quality, habitat, living marine resources, cultural resources and ecosystem services of the monument; and
- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,



## [EXTERNAL] Northeast Canyons and Seamounts Marine National Monument management plan

Mon 12/5/2022 12:38 PM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

We must protect our marine environment for people, wildlife and our planet. We are all inter-related.

As an east coast resident, protecting our iconic ocean and all of the treasures within it is very important to me. I'm writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I'm proud of this special place being a part of New England, and want to see it protected and thriving forever.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
- A scientific exploration and research plan that includes research on the impacts of climate change on the monument;
- A plan for conducting a comprehensive inventory of the monument's natural and cultural resources and for assessing the activities occurring in the monument;
- An effective monitoring and enforcement program to ensure compliance with Monument rules and regulations;
- A permitting system for allowable activities;
- A requirement to review and update the management plan periodically, at least every 10 years if not sooner. Such a review should be preceded by a comprehensive assessment of human uses, water quality, habitat, living marine resources, cultural resources and ecosystem services of the monument; and
- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,



## [EXTERNAL] Northeast Canyons and Seamounts Marine National Monument management plan

Mon 12/5/2022 4:08 PM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

As a concerned environmentalist, protecting our iconic ocean and all of the treasures within it is very important to me. I'm writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I'm proud of this special place being a part of New England, and want to see it protected and thriving forever.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
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Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,





**[EXTERNAL] Strong management plan for the Northeast Canyons and Seamounts Marine National Monument**

[REDACTED]  
via [us.advocacymessaging.org](https://us.advocacymessaging.org)

Mon 12/5/2022 5 44 PM

To: NCSMNM Planning, FW5 <[ncsmnm\\_planning@fws.gov](mailto:ncsmnm_planning@fws.gov)>

This email has been received from outside of DOI. Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

OUR earth is sick. Very sick and humans are the cause. Every action to stick up for the environment and its non human inhabitants must be taken. If the climate tanks, which is a distinct possibility in too short of time, life for us humans changes in a drastic way and many will be displaced and/or will die. Simple as that. And the scary part is that it is happening now.

As a New England resident, protecting our iconic ocean and all of the treasures within it is very important to me. I m writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I m proud of this special place being a part of New England and want to see it protected and thriving forever.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama s 2016 proclamation designating the Monument.

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Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,



Re: Automatic reply: [EXTERNAL] Canyons ,I believe these should be reopened ,in all the tears I fish those canyons we never caught any coral or reefs, and never intagelled a whale .WE need these grounds we could fish for whiting in the winter months gi...



Mon 12/5/2022 7:34 PM

To: NCSMNM Planning, FW5 ncsnmnm\_planning@fws.gov

Sorry ,meant to say we gave the haddock ,cod and flounders a break in the winter months .Also the suid fisherman needs these grounds .Also our dragers never rich the depths we onl fished to 660feet the canyons go down to 2000 feet

On Mon, Dec 5, 2022 at 7:25 PM NCSMNM Planning, FW5 <[ncsmnm\\_planning@fws.gov](mailto:ncsmnm_planning@fws.gov)> wrote:

Thank you for contacting the Northeast Canyons and Seamounts Marine National Monument We have received your email. Any comments received through [ncsmnm\\_planning@fws.gov](mailto:ncsmnm_planning@fws.gov) will be taken into consideration for the development of the Monument Management Plan.

If you are inquiring about the Monument Management Plan we will respond to you as soon as possible.

Have a great day,

Northeast Canyons and Seamounts Marine National Monument - Management Planning  
Brittany Petersen,  
Superintendent of the Northeast Canyons and Seamounts Marine National Monument

*To learn more about the Monument: Click [here](#)*

*To stay up to date on the Monument Management planning process: Click [here](#)*

[EXTERNAL] Canyons ,I believe these should be reopened ,in all the tears I fish those canyons we never caught any coral or reefs, and never intagelled a whale .WE need these grounds we could fish for whiting in the winter months giving cod and haddock

...



Mon 12/5/2022 7:25 PM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

**[EXTERNAL] Strong management plan for the Northeast Canyons and Seamounts Marine National Monument**

Mon 12/5/2022 7:38 PM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

As a family with New England resident friends, protecting our iconic ocean and all of the treasures within it is very important to me. I'm writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I'm proud of this special place being a part of New England, and, we want to see it protected and thriving forever.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

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- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,





[EXTERNAL] Northeast Canyons and Seamounts Marine National Monument  
Management Plan

[REDACTED]

Tue 12/6/2022 10:51 AM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

**This email has been received from outside of DOI - Use caution before clicking on links,  
opening attachments, or responding.**

Good Morning,

I am submitting public comment in regards to the Northeast Canyons and Seamounts Marine National Monument Management Plan.

Simply put I'd like to see this area managed for abundance with a very conservative management plan. Changing conditions in our ocean like climate change, varying abundances of forage fish, and commercial fishing pressure have me concerned about our inshore and offshore fisheries. A conservative approach would be appreciated. Access to abundant fisheries truly drives access and a highly economic value. Thanks for your consideration.

Best,

[REDACTED]

# **MATARONAS LOBSTER CO., INC.**

**[REDACTED], President**

August 10, 2016

To the US Congress & US Senate

Dear Congressmen & Senators,

I have been an Offshore Lobsterman for forty-three years and have been involved with the planning of the management and conservation plan for AREA 3 since 1990. I have owned and operated three different offshore lobster boats in that time.

I am vehemently opposed, along with other fishers, to blatantly designating a Marine Monument for the offshore canyons through the Antiquities Act with no public input from the users of these canyon areas.

I have fished in the offshore canyons (Veatch, Block, & Atlantis) since 1973. I lobster in that area with several other lobstermen and we have held that bottom from other lobstermen, draggers, (foreign & domestic), & scallopers. Most lobstermen do the same thing in the canyons as there is just a sliver of area where jonah crab, lobster, and red crab are found. These depths range anywhere from 100 meters to 900 meters. If any lobster boats are displaced from the designated area, they will move their gear to the Gulf of Maine and create gear conflicts with lobstermen in that area and create more interactions with whales which inhabit the Gulf. If these lobster boats move to the south, instead, they will also create gear conflicts with lobstermen there and put more pressure on an already stressed Area 3 Southern New England lobster resource.

I want to make it clear there is a significant amount of gear fishing in these designated areas and it will be near impossible to move gear anywhere else, never mind the negative financial impact it will have. I, along with many other offshore canyon fishers I have spoken with, have never had any interaction with offshore coral. As was stated by many environmentalist and scientist, the coral in the designated area is pristine, so it bewilders me why

we should be shut out off from these areas after lobstering there for over forty-three years.

I would implore you to allow public input in the process along with NOAA, NMFS, and ASMFC and at the very least move the inside boundary of the designated area outside of 900 meters.

Sincerely,

[REDACTED]

[REDACTED]

[REDACTED]

[EXTERNAL] Marine Monument

[REDACTED]  
Tue 12/6/2022 11:38 AM

To: NCSMNM Planning, FW5 ncsnm planning@fws.gov

Cc: [REDACTED]

📎 1 attachments (30 KB)

Marine Monument.doc;

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Dear NOAA,

Please find the attached letter I previously sent when the NE Seamount closure was being initiated.

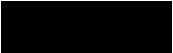
Thank you,  
[REDACTED]

**[EXTERNAL] Commentary**

Tue 12/6/2022 12:01 PM

To: NCSMNM Planning, FW5 ncsnmn\_planning@fws.gov

**This email has been received from outside of DOI Use caution before clicking on links, opening attachments, or responding.**

Hello I just wanted to say that I am all for the preservation of this beautiful resource. However I do believe that any rule making that is adopted should in no way impede the ability to fish this resource while following existing federal limitation and size requirements. Under no circumstances should areas of the northeast canyons be restricted, closed, or designated no fishing areas. This is freedom and liberty. Almost all of us out there are cognizant of our responsibilities to our environment and our fisheries. Existing fisheries management protocol should be the only methodology to preserve species etc . Sincerely 

**[EXTERNAL] Northeast Canyons management plan**

Tue 12/6/2022 12:41 PM

To: NCSMNM Planning, FW5 ncsnmn\_planning@fws.gov


This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Ms Peterson,

I hope that Offshore Lobstering with traps will be permissible in the monument area . In the mid 70's I owned & operated an Offshore Lobster boat out of Nantucket,MA. The guys with the bigger vessels were heading further East all the time out Lydonia , Welkes & Nygren way . Offshore lobster trapping has zero negative effect on the canyons other than occasional lost trap or trawl. Those traps represent a good deal of investment and lobstermen HATE to loose them so a great deal of effort is put into estimating where bad WX may have dragged them . Point being a lost trap or trawl far from ignored .

I want to make the respectful point that while I am all for National Parks and properly managed conservation lets NOT lock the Offshore Lobstermen out of one of their most productive areas as they pose no risk to conservation of area.

Thank you for your time.

Regards 

Sent from my iPhone

## [EXTERNAL] Northeast Canyons and Seamounts Marine National Monument management plan

Thu 12/8/2022 10:50 PM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

As a New England resident, protecting our ocean is very important to me. I urge you to create a strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I want to see it protected and thriving forever.

Please have a publicly available management plan in place by September 15, 2023, that achieves the guiding principles in President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
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- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,





[EXTERNAL] Comments on the Monument Management Plan

[REDACTED]

Fri 12/9/2022 3:28 PM

To: NCSMNM Planning, FW5 ncsmm planning@fws.gov

**This email has been received from outside of DOI Use caution before clicking on links, opening attachments, or responding.**

Good day,

Attached are some comments on the Monument Management Plan made w/in the context of the Research and Stewardship themes w/in the Public Engagement Session doc.

Regards, [REDACTED]

[REDACTED]

#### Exploration & Research:

1. What should we be exploring in the Monument?
2. What should we be monitoring in the Monument?
3. What kind of partnerships would you like to see for research and exploration?
4. How would you like to see the Monument support and share ocean research and exploration?
5. What other thoughts and ideas would you like to share with us?

An answer to 1-5 above would be to recognize (and perhaps reconstitute) that NOAA used to have an undersea research program (NURP), that morphed into the Ocean Exploration and Research (OER) program, that now appears to be only the Ocean Exploration program. A robust, extramural, peer-reviewed undersea research program could address all of the issues above, identify through a public process what are the highest priority research questions in the Monument, and what nature of monitoring could best address those questions and select competitive research projects to answer them. In addition, more fundamental monitoring of the dynamics of this offshore area, (blessed with the Gulf Stream currents, topographically induced upwellings, Taylor cap phenomena around the seamounts etc) could provide insights into the productivity, connectivity and diversity of this area.

So the logical partner on this would be revitalized NOAA undersea research presence.

The results of the research projects would published in the literature. In addition, following up on a recommendation of the OER Review Summary report Data and Information section would provide real-time access to the monitoring data and research cruises:

“Accelerate Telepresence Deployment with Low-Cost Pilots. OER should pilot low-cost telepresence solutions enabled by low-cost cloud computing and commercially available satellite internet capabilities. Piloting these activities now will inform key risks and acquisition pathways as global connectivity matures, saving time and money before large-scale procurement decisions are made.

This lower-cost telepresence approach could complement the larger, ship-based (Okeanos) activities and utilize some of its infrastructure for data sharing/dissemination.

#### Stewardship:

1. How would you like to see this place cared for?
2. How would you like to enjoy this place?

See above – greater real-time engagement in the research activities could be a great public engagement activity, as well as a gold-mine for ocean science education. The current Ocean Exploration program telepresence streams from new places, often discovering new species, which is cool. However, a more comprehensive research

telepresence could provide teachers/students/public with the hypotheses being addressed, the standard, and new technologies and methodologies being used in the research, as well as links to a ton of the supporting resources, literature, imagery etc.

3. How should we share the work that is going on in the Monument?

See above

4. Who should we partner with to care for this place?

NOAA, as above, but also perhaps engage the Schmidt, Waitt, Dalios etc. – engage them in the research that is important for true ocean stewardship, vs just going after the next shiny object (ie new place).

5. How would you like to be involved in the Monument?

6. What other thoughts and ideas would you like to share with us?

See above

## [EXTERNAL] Northeast Canyons and Seamounts Marine Nat'l Monument Management Plan

Sat 12/10/2022 10:16 AM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Dear folks -- Some thoughts on your management plan. I am assuming that the draft plan will initially be integrated into a NEPA environmental impact statement report for public review as most federal agencies do with their own wildlife refuge, parks and forest plans. This plan should speak in marine scientific and conservation terms NOT uses, traditional or otherwise.

1. The management goals, objectives and strategies should reflect the purposes for which this national ocean monument area was created for. i.e. research, education, unique habitat, marine biodiversity, spawning area, etc.
2. The area should be fully protected from incompatible extractive uses and activities. This would include commercial and recreational fishing and oil and gas drilling, mineral mining and any sediment removal. Ocean disposal of contaminated dredged material and sewage waste should also be prohibited.
3. This designation and creation helps fulfill a national vision and mandate to establish a national marine protected area system;
4. Maintenance of ecological integrity of this unique ecosystem with "sustainability" of marine fish and shellfish stock being one of the major management goals/objectives.
5. Management needs to move from and illustrate a change from economic development in federal waters to one driven by ecosystem conservation Federal statutes may need changing to support this ecosystem-based management.
6. The mission and purposes of our National Marine Protected Area and Sanctuary programs and efforts needs to be emphasized and prioritized over any and all uses.
7. The Northeast Canyons and Hudson Canyon monument designations should be considered a first step to designating the remaining Western Atlantic Canyon areas along our continental shelf from Eastport to Virginia or the Carolinas/Georgia based on the locations of these submerged geological features. Each represents a unique ecosystem.

The role of the national Ocean Council(s) should be explained. Bottoml-lines need to be developed, limits introduced, compatibility and undue degradation policies developed and implemented if needed to ensure MPAs are successful.

The project EIS should explain in detail that the environment and natural resources are the basis of our economy NOT a gross national or domestic product figure.

Thank you for the opportunity to respond and input.



[EXTERNAL] Northeast Canyons and Seamounts Marine National Monument management plan

[REDACTED]  
Thu 12/15/2022 9:56 AM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

I am a professional boat captain and earn my living on the coastal waters. I urge your Service to develop a comprehensive plan that would establish the Seamounts National Monument. This should establish a permanent and effective protection for this precious resource.

[REDACTED]  
I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
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- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,

[REDACTED]



1/27/23, 8:56 AM

Mail - NCSMNM Planning, FW5 - Outlook



**[EXTERNAL] Strong management plan for the Northeast Canyons and Seamounts Marine National Monument**

[REDACTED]  
via [us.advocacymessaging.org](https://us.advocacymessaging.org)

Thu 12/15/2022 10 54 AM

To: NCSMNM Planning, FW5 <[ncsmnm\\_planning@fws.gov](mailto:ncsmnm_planning@fws.gov)>

This email has been received from outside of DOI Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

I grew up in New England and now live in the nearby Maritimes. These are both areas whose livelihoods and cultures are closely intertwined with the health of the ocean, and have been for as long as there have been communities in these regions. The health of the Northeast Canyons and Seamounts Marine National Monument is crucial for protecting those livelihoods and cultures. I m writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I m proud of this special place being a part of New England and my adopted Maritimes, and want to see it protected and thriving forever. Oceans do not operate with borders, so what we do "at home" turns tides and currents for vast regions ... our very planet's climates and ecosystems, in point of fact. We are all connected.

I want my children and grandchildren, my neighbours (old and new), and indeed everyone, to be nourished and thrive in tandem with these critical environmental infrastructures. Without them, we all perish.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, to achieves the vision, mission, and guiding principles set forth ensure that the Monument thrives for generations to come

Thank you,

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

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sooner. Such a review should be preceded by a comprehensive assessment of human uses, water quality, habitat, living marine resources, cultural resources and ecosystem services of the monument; and

- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,

[Redacted signature block]

## [EXTERNAL] Northeast Canyons and Seamounts Marine National Monument management plan

Thu 12/15/2022 11:08 AM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

As a New England resident, Adjunct Professor and [REDACTED], an Oceanography Professor at the URI GSO who with many graduate students spent many years working to insure the conservation and survival of the declining populations of the of the North Atlantic Right Whales I am protecting our iconic ocean and all of the treasures within it is very important to me. I'm writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

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Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,



**[EXTERNAL] Northeast Canyons and Seamounts Marine National Monument management plan**

  
via [us.advocacymessaging.org](https://us.advocacymessaging.org)

Thu 12/15/2022 11 10 AM

To: NCSMNM Planning, FW5 <[ncsmnm\\_planning@fws.gov](mailto:ncsmnm_planning@fws.gov)>

This email has been received from outside of DOI. Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

As a New England resident, and one who has spent considerable time on or near the Atlantic Ocean, the need to protect our iconic ocean and all of the treasures within it is very important to me. I am writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I am proud of this special place being a part of New England, and want to see it protected and thriving forever.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

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- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,





## [EXTERNAL] Northeast Canyons and Seamounts Marine National Monument management plan

Thu 12/15/2022 12:00 PM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

As a New England resident who studied the Northeast Canyons and Seamounts during graduate school and who has spent their career in marine conservation, protecting our ocean and all of the treasures within it is of paramount importance! As a diver and researcher, I have seen the devastation of vital ocean habitat worldwide and feel privileged to be in a part of the world that has the political will to prevent that from happening here. I'm writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I'm proud of this special place being a part of New England, and want to see it protected and thriving forever.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
- A scientific exploration and research plan that includes research on the impacts of climate change on the monument;
- A plan for conducting a comprehensive inventory of the monument's natural and cultural resources and for assessing the activities occurring in the monument;
- An effective monitoring and enforcement program to ensure compliance with Monument rules and regulations;
- A permitting system for allowable activities;
- A requirement to review and update the management plan periodically, at least every 10 years if not sooner. Such a review should be preceded by a comprehensive assessment of human uses, water quality, habitat, living marine resources, cultural resources and ecosystem services of the monument; and
- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the

Northeast Canyons and Seamounts. New England is counting on you.

Thank you,



**[EXTERNAL] Please Support the Northeast Canyons and Seamounts Marine National Monument**

Thu 12/15/2022 9:28 PM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

As a New England resident and a UNH Marine Docent, protecting our iconic ocean and all of its treasures is very important to me. I urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I'm proud of this special place being a part of New England, and want to see it protected and thriving forever.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
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- A plan for conducting a comprehensive inventory of the monument's natural and cultural resources and for assessing the activities occurring in the monument;
- An effective monitoring and enforcement program to ensure compliance with Monument rules and regulations;
- A permitting system for allowable activities;
- A requirement to review and update the management plan periodically, at least every 10 years if not sooner. Such a review should be preceded by a comprehensive assessment of human uses, water quality, habitat, living marine resources, cultural resources and ecosystem services of the monument; and
- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,



## [EXTERNAL] Stand up for the Northeast Canyons and Seamounts Marine National Monument

  
via [us.advocacymessaging.org](https://us.advocacymessaging.org)

Mon 12/19/2022 2 20 PM

To: NCSMNM Planning, FW5 <[ncsmnm\\_planning@fws.gov](mailto:ncsmnm_planning@fws.gov)>

This email has been received from outside of DOI. Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

As a Scuba Diver and New England resident, protecting our iconic ocean and all of the treasures within it is very important to me. I'm writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I'm proud of this special place being a part of New England, and want to see it protected and thriving forever.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
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- An effective monitoring and enforcement program to ensure compliance with Monument rules and regulations;
- A permitting system for allowable activities;
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- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,



**[EXTERNAL] Northeast Canyons and Seamounts Comment**

Mon 12/19/2022 5:21 PM

To: NCSMNM Planning, FW5 ncsnmn\_planning@fws.gov

**This email has been received from outside of DOI Use caution before clicking on links, opening attachments, or responding.**

"The management plan for Northeast Canyon and Seamount Marine National Monument should prioritize conservation outcome that protect biodiversity, address the climate crisis, and provide more opportunities for the public to connect with and understand the vast and inspiring wonder contained within the monument

The Northeast Canyon and Seamount Marine National Monument management plan should include a robust public education and outreach component. It is important to create and share accessible and inclusive educational resources in multiple languages that share the incredible biodiversity of this monument with the public. The Marine National Monument is filled with spectacular wildlife, the like of which are reminiscent of fantastical works of art. The slow growing deep sea coral, large marine mammals, majestic seabirds, and the often unseen critters and plankton all make this monument a haven for biodiversity. In recent years, scientists have conducted dives with remotely operated vehicles (ROVs) and aerial surveys; they continue to observe new and rare species with each visit. The Northeast Canyon and Seamount Marine National Monument management plan should include provisions for creating a comprehensive inventory of the monument's natural and cultural resources.

The management plan should include a robust process to ensure effective collaboration and coordination among federal management agencies, and stakeholders. By working collaboratively, we can meet the challenges of the moment and create lasting protection for the Northeast Canyon and Seamount Marine National Monument for generations to come."

Calm Tides,

He/him

Executive Director

Inland Ocean Coalition

Mobile:

[Schedule a meeting with me](#)

[Donate to win a vacation!](#)



## [EXTERNAL] Northeast Canyons and Seamounts Marine National Monument Management Plan

[REDACTED]

Tue 12/27/2022 11:24 PM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

To:

Brittany Petersen, Marine Monument Superintendent  
USFWS, 300 Westgate Center Drive  
Hadley, MA 01035

I am an active USCG Licensed (100-ton Master) captain that has been fishing in the Northeast Canyons both recreationally and commercially for the past 25+/- years, and I am opposed to any management strategy or regulatory action that would negate or restrict fishing activities in the subject area beyond those which would generally apply to the other coastal and off shore waters of New England. This is not an area that receives a great amount of fishing pressure, but for those who get the opportunity to fish in these waters it represents an opportunity that cannot be replicated elsewhere. I would ask that you, Ms. Peterson, and the group making the decisions on the Northeast Canyons and Seamounts Marine National Monument Management Plan give serious consideration to the human experience and refrain from infringing upon the past and present rights of the law-abiding tax paying citizens to fish within the area now designated as the Northeast Canyons and Seamounts Marine National Monument.

Best Regards,

[REDACTED]

**[EXTERNAL] NE Canyons & Seamounts Marine Management Management Plan**

[REDACTED]  
Thu 12/29/2022 1:10 AM

To: NCSMNM Planning, FW5 ncsnmn planning@fws.gov

Cc: [REDACTED]

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Dear Brittany Petersen:

I am a retired marine scientist and grassroots environmental activist living on Cape Cod who opposed the Trump Administration's efforts to restrict the Northeast Canyons and Seamounts Marine Management designation/goals established during the Obama Administration. I find it encouraging that NOAA and the US FWS are developing a management plan for this unique national marine monument at the edge of the Continental Shelf off of New England. I gather that the Management Plan is at Step #1: Foundation and Problem Analysis. I'm an Emeritus Sierra Club activist and senior advisor to frontline activists. In recent years I have taken the Biodiversity for a Livable Climate online courses on: "Ecological Economics" and "Systems Thinking and Scenario Analysis". When I worked at NOAA Fisheries Northeast Fisheries Science Center- Woods Hole Laboratory, I supported some endeavors focused on an "Adaptive, Ecosystems-based Management Approach" to manage living marine/protected/natural trust resources. I also served on the New England Fishery Management Council's Habitat Plan Development Team which helped develop Omnibus Habitat Amendment 2 which was issued by NOAA in 2018. When I worked at NASA's Earth Resource Laboratory, I worked on the Productive Capacity of Wetlands project which linked wetland primary production with shrimp yield in the northern Gulf of Mexico. Between 1995-2006 I participated in EPA Headquarters Waquoit Bay Watershed Ecological Risk Assessment project which identified nutrients as the major human stressor in the watershed.

The following suggestions are drawn from these experiences. Since the NE Canyons & Seamounts Marine Monument is a long way from the New England coast I will leave it up to the Federal staff involved in developing the Management Plan to judge the relevance of these ideas.

\* The Waquoit Bay Watershed Ecological Risk Assessment project used an Exposure/Stress/Response Conceptual model to identify "Nitrogen" as the major stressor in Waquoit Bay and "Phosphorus" as the culprit in Ashumet pond. Cape Cod Towns are developing Comprehensive Wastewater Management Plans to reduce "N" loading from septic systems to improve water quality and restore habitats in > 52 coastal embayments. A similar approach could be utilized in the problem formulation component for the upcoming Management Plan for the National Marine Monument.

\* Ocean climate change effects could be explored by scenario analysis with the NOAA Fisheries/Mid-Atlantic Fishery Management Council Atlantic Seaboard Climate Change Scenario Planning project providing a good case study. I used this as an example for my class scenario project on "N" loading from septic systems and climate change on the Pleasant Bay Watershed Area of Critical Environmental Concern on Outer Cape Cod.

\* When I participated in the EMAX (Energy Modeling and Analysis Exercise) for the Northeast Continental Shelf Ecosystem, we had to add the "Microbial Food Web" for rapidly warming places to balance primary production

estimates with the yield of LMRs/PRs/NTRs in the Gulf of Maine. When I studied at the University of Georgia under Dr. Lawrence Pomeroy, he identified the importance of the microbial food web in the open ocean food web. I conducted studies in the Antarctic ocean on community respiration associated with the microbial food web. Increased community respiration from the microbial food web in the Gulf of Maine helps balance primary production with the yield of LMRs/PRs/NTRs.

\* At the Woods Hole Oceanographic Institution they are studying the ocean twilight zone (200-1000 meter depth) which is important in ocean storage of greenhouse gases from surface primary production passing through the permanent thermocline for storage in benthic sediments. This may be relevant to the deep sea canyons as a pathway for particulate organic carbon and nitrogen and delayed release of methane/carbon dioxide back into the atmosphere. This topic was discussed in the Ecological Economics course.

\* An Adaptive, Ecosystems-based Management approach could address changes in prey and predators in space and time from climate change and alterations in biodiversity on the seamounts from changes in ocean circulation and human stressors. Ecological Economics has techniques for estimating natural capital and ecosystem services to supplement Natural Resources Economics. Socioeconomics is an important parameter in scenario analysis. My Ecological Economics class project involved Adaptive Ecosystem-based Management in New England Waters.

\* The Productive Capacity of Essential Fish Habitat concept should be extended to seabirds; sea turtles; marine mammals; and support for biodiversity on the seamounts/deep sea corals in the canyons. The NOAA Fisheries Northeastern State of the Ecosystem report released in 2020 provides background to support this concept.

\* The Management Plan should include science translation to convert research and monitoring into NOAA/US FWS policies/regulations that are accessible to the concerned public and ocean users. This can overcome the tendency to be data rich, but information poor. In 2021 I participated in an NEFSC webinar where they sought information from saltwater anglers and commercial fishers on the distribution of Black Sea Bass in coastal ocean waters north of Chesapeake Bay (since they were not measured very well in COVID-19 limited bottom trawl surveys). This species is a voracious predator which can alter the "natural mortality" of fisheries stock assessments. I don't know what kinds of changes species distribution have occurred at the edge of the continental shelf where the seamounts & deep sea canyons occur. Thus non-peer reviewed journal data might be useful in developing the Management Plan.

\* I don't know if Indigenous knowledge would be useful in developing the Management Plan, but it is important in the state/Federal Environmental Justice dialog.

Thanks for considering these comments.



[EXTERNAL] Comment on Joint Monument Management Plan

[REDACTED]

Wed 1/18/2023 8:07 AM

To: NCSMNM Planning, FW5 ncsmm planning@fws.gov

**This email has been received from outside of DOI Use caution before clicking on links, opening attachments, or responding.**

Dear Superintendent Petersen,

Thank you for the opportunity to provide comment on management plan development for the Northeast Canyons and Seamounts Marine National Monument A letter with detailed comments is attached. I would greatly appreciate a brief confirmation the attachment arrived in good order. Thank you, in advance, for your consideration.

Sincerely,

[REDACTED]

[REDACTED]





# MYSTIC AQUARIUM

55 Coogan Boulevard  
Mystic, CT 06355  
P 860 572 5955  
F 860 572 5969  
W [mysticaquarium.org](http://mysticaquarium.org)

17 January 2023

USFWS  
Hadley, MA 01035

Subject: Proposed Joint Monument Management Plan

Dear Superintendent Petersen:

Thank you for the opportunity to provide scoping comments to guide USFWS in development of a draft management plan for the Northeast Canyons & Seamounts Marine National Monument. Here we provide four broad areas for your consideration, realizing the plan development process will evolve and produce a document that is both aspirational and fit within the resources expected to be available to the agency and its partners. The focus areas we raise for your consideration are:

1. Facilitate and support a robust research program to understand the dynamics and distribution of biodiversity at all levels (genes, species, communities), within habitats (canyons, seamounts, abyss, midwater), and across depth zones (epipelagic to abyss). This should include simple inventory of biodiversity, targeted studies on the role of species interactions (predator-prey, competition, mutualisms), effects of variation in oceanographic conditions (including links to climate change), and movement patterns of vagile fauna (especially those that cross monument boundaries, from seabirds to deep-sea sharks). Especially important is to include studies that contrast status and dynamics of diversity both inside and outside the boundaries of the Monument.
2. Monitor distribution, intensity, and effect of allowable human activities in and around the Monument.
3. Communicate the wonder of this place to the wider public, in both formal and informal settings, using multiple approaches including exhibits (permanent and traveling), education packages (for classrooms across grade levels), and both live and recorded events that reach across the Nation.
4. Engage underrepresented communities of color in Monument focused activities and in all opportunities to enhance perspectives on management, research, education, and stewardship.

We would be happy to discuss any of these with you in more detail. Thank you, in advance, for your consideration.

Sincerely,



**[EXTERNAL] Northeast Canyons and Seamounts Marine National Monument management plan**

[REDACTED]  
via [us.advocacymessaging.org](https://us.advocacymessaging.org)

Wed 1/18/2023 3 14 PM

To: NCSMNM Planning, FW5 <[ncsmnm\\_planning@fws.gov](mailto:ncsmnm_planning@fws.gov)>

This email has been received from outside of DOI. Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

UNLESS YOU REALLY REALLY really FEEL THE NEED TO KILL OFF ANOTHER PATCH OF NATURAL LIFE WONDER AND BEAUTY FOR NO REASON AT ALL, I OFFER THE FOLLOWING

As a New England resident, protecting our iconic ocean and all of the treasures within it is very important to me. I'm writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I'm proud of this special place being a part of New England, and want to see it protected and thriving forever.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
- A scientific exploration and research plan that includes research on the impacts of climate change on the monument;
- A plan for conducting a comprehensive inventory of the monument's natural and cultural resources and for assessing the activities occurring in the monument;
- An effective monitoring and enforcement program to ensure compliance with Monument rules and regulations;
- A permitting system for allowable activities;
- A requirement to review and update the management plan periodically, at least every 10 years if not sooner. Such a review should be preceded by a comprehensive assessment of human uses, water quality, habitat, living marine resources, cultural resources and ecosystem services of the monument; and
- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,



**[EXTERNAL] Strong management plan for the Northeast Canyons and Seamounts Marine National Monument**

Wed 1/18/2023 3:38 PM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

As an environmentalist and life-long New England resident, protecting our iconic ocean and all of the treasures within it is very important to me. I'm writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I'm proud of this special place being a part of New England, and want to see it conserved, protected and thriving forever.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

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- An effective monitoring and enforcement program to ensure compliance with Monument rules and regulations;
- A permitting system for allowable activities;
- A requirement to review and update the management plan periodically, at least every 10 years if not sooner. Such a review should be preceded by a comprehensive assessment of human uses, water quality, habitat, living marine resources, cultural resources and ecosystem services of the monument; and
- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,





## [EXTERNAL] Northeast Canyons and Seamounts Marine National Monument management plan

Wed 1/18/2023 3:44 PM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

I'm writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument. Our lives depend upon healthy oceans with abundant aquatic life, plants and fish. It's critical to our survival to safeguard fragile and interconnected ecosystems and improve ocean resilience to warming temperatures.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
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- A requirement to review and update the management plan periodically, at least every 10 years if not sooner. Such a review should be preceded by a comprehensive assessment of human uses, water quality, habitat, living marine resources, cultural resources and ecosystem services of the monument; and
- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,



## [EXTERNAL] Northeast Canyons and Seamounts Marine National Monument management plan

Wed 1/18/2023 4:46 PM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

Please create a management plan for our offshore waters. Many New Englanders rely on these waters for their livelihoods. And we all benefit from this being a clean water resource.

As a New England resident, protecting our iconic ocean and all of the treasures within it is very important to me. I'm writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I'm proud of this special place being a part of New England, and want to see it protected and thriving forever.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
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- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,

[REDACTED]

**[EXTERNAL] Northeast Canyons and Seamounts Marine National Monument**  
Wed 1/18/2023 5:34 PM

To: NCSMNM Planning, FW5 ncsnmnm\_planning@fws.gov

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Dear Superintendent Petersen,

As a Yankee, protecting our iconic ocean and all of the treasures within it is very important to me, even if Vermont is landlocked. I'm writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
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- A requirement to review and update the management plan periodically, at least every 10 years if not sooner. Such a review should be preceded by a comprehensive assessment of human uses, water quality, habitat, living marine resources, cultural resources and ecosystem services of the monument; and
- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,



## [EXTERNAL] Northeast Canyons and Seamounts Marine National Monument management plan

Wed 1/18/2023 5:42 PM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

Please protect this treasure! A strong management plan is needed.

As a New England resident, protecting our iconic ocean and all of the treasures within it is very important to me. I'm writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I'm proud of this special place being a part of New England, and want to see it protected and thriving forever.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

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- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.



Thank you,



[EXTERNAL] Northeast Canyons and Seamounts Marine National Monument management plan

[REDACTED]  
Wed 1/18/2023 8:48 PM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

I have spent my life sailing off Cape Cod, Boston, and Cape Ann with my parents and now with our children. Respecting and protecting our ocean, both above the surface and below, is very important to me. I urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I want to see it protected and thriving forever and for all.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
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- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,

[REDACTED]

1/27/23, 9:24 AM

Mail - NCSMMN Planning, FW5 - Outlook



**[EXTERNAL] Strong management plan for the Northeast Canyons and Seamounts Marine National Monument**

Wed 1/18/2023 10:16 PM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

I am a science teacher who has created hands-on lessons to explain how the rising levels of CO<sub>2</sub> in the air lead to ocean acidification. I am very aware of the impending degradation of our oceans with the consequence-- an enormous loss of species /biodiversity

I completely support and I agree with the following Conservation Law Foundation letter . The following letter includes their recommendations and actions. It sounds like big undertaking, but I know we need to take this deep dive and try our best! :) Thank you very much for taking this on.

As a New England resident, protecting our iconic ocean and all of the treasures within it is very important to me. I'm writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I'm proud of this special place being a part of New England, and want to see it protected and thriving forever.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
- A scientific exploration and research plan that includes research on the impacts of climate change on the monument;
- A plan for conducting a comprehensive inventory of the monument's natural and cultural resources and for assessing the activities occurring in the monument;
- An effective monitoring and enforcement program to ensure compliance with Monument rules and regulations;
- A permitting system for allowable activities;
- A requirement to review and update the management plan periodically, at least every 10 years if not sooner. Such a review should be preceded by a comprehensive assessment of human uses, water quality,

habitat, living marine resources, cultural resources and ecosystem services of the monument; and  
- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,



## [EXTERNAL] Northeast Canyons and Seamounts Marine National Monument management plan

Thu 1/19/2023 1:20 PM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

As a New England resident, protecting our iconic ocean and all of the treasures within it is very important to me. I'm writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I'm proud of this special place being a part of New England, and want to see it protected and thriving forever.

It has already been demonstrated that protecting important areas in the oceans ends up increasing populations of fish surrounding it as well which is good environmentally and economically.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
- A scientific exploration and research plan that includes research on the impacts of climate change on the monument;
- A plan for conducting a comprehensive inventory of the monument's natural and cultural resources and for assessing the activities occurring in the monument;
- An effective monitoring and enforcement program to ensure compliance with Monument rules and regulations;
- A permitting system for allowable activities;
- A requirement to review and update the management plan periodically, at least every 10 years if not sooner. Such a review should be preceded by a comprehensive assessment of human uses, water quality, habitat, living marine resources, cultural resources and ecosystem services of the monument; and
- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,



## [EXTERNAL] Northeast Canyons and Seamounts Marine National Monument management plan

Thu 1/19/2023 2:08 PM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

As a New Englander (even with CA address), protecting our iconic ocean and all of the treasures within it is very important to me. I'm writing today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because I'm proud of this special place being a part of New England, and want to see it protected and thriving forever.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
- A scientific exploration and research plan that includes research on the impacts of climate change on the monument;
- A plan for conducting a comprehensive inventory of the monument's natural and cultural resources and for assessing the activities occurring in the monument;
- An effective monitoring and enforcement program to ensure compliance with Monument rules and regulations;
- A permitting system for allowable activities;
- A requirement to review and update the management plan periodically, at least every 10 years if not sooner. Such a review should be preceded by a comprehensive assessment of human uses, water quality, habitat, living marine resources, cultural resources and ecosystem services of the monument; and
- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,





[EXTERNAL] Northeast Canyons and Seamounts Marine National Monument; Proposed Joint Monument Management Plan Comment

[REDACTED]

Fri 1/20/2023 1:39 PM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

To whom it may concern,

Creation Justice Ministries has drafted a comment on the proposed management plan attached below.

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In faith and truth,

[REDACTED]



# CREATION JUSTICE MINISTRIES

*Justice for God's planet and God's people.*

**Subject:** Northeast Canyons and Seamounts Marine National Monument  
Management Plan Organizational Comment

**Document ID: 2022-28203**

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**Federal Register #: 87 FR 79901**

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Creation Justice Ministries represents the creation care and environmental justice policies of major Christian denominations throughout the United States. We work in cooperation with 38 national faith bodies including Protestant denominations and Orthodox communions as well as regional faith groups, and congregants to protect, restore, and rightly share God's Creation.

Since its establishment in 2016, the Northeast Canyons and Seamounts National Marine Sanctuary has been the first and only marine national monument in the Atlantic Ocean, and thus an invaluable refuge for an incredible array of ecosystems and species. This national treasure currently spans 3.1 million square miles and boasts seamounts higher than any mountain east of the Rockies and depths deeper than the Grand Canyon. The divine uniqueness and significance of this area is visible in the rare and endangered species found only here and not in any other national monument, sanctuary, or park, and new species are constantly being discovered.

God's handprint is seen in the rainbow of deep-sea corals, sponges, and sea anemones, the dancing pods of dolphins, the swoop of puffins, and the ripple of giant manta ray. Its moniker, "the Serengeti of the Sea," is well-deserved, and its extreme importance for ocean and human health is even greater than its land-based referent. The coldwater coral communities form the foundation of countless ocean ecosystems, whose fish find in them shelter, food, and nesting grounds. The wealth of information gleaned from multiple expeditions has generated intense scientific

interest, and we will learn even more as we continue to preserve ecosystem health throughout the region.

Our country has a long tradition of valuing and protecting our public lands and waters. Support for protecting the Canyons and Seamounts Monument is just as strong, evidenced by the positive outpouring from the everyday citizens, faith leaders, business owners, scientists, elected officials, outdoor recreation groups, and more. The monument's creation has benefitted all these groups. One example is the increased catch of certain species such as lobsters in areas adjacent to the monument following the implementation of protections. New England relies on its waters to generate billions of dollars a year in tourism and recreation and to support hundreds of thousands of jobs. Protecting the Canyons and Seamounts means protecting the culture and vitality of the Northeast for both its inhabitants and the millions of visitors from across the U.S. and around the world who come to pay homage year-round.

Despite its clear importance, the Canyons and Seamounts Monument is under threat on multiple fronts. The prior administration proposed removing the crucial protections put in place by the original proclamation that established the monument and opening it up to commercial fishing - a proposition that was vehemently opposed by the myriad stakeholders who benefit from its continued vitality. Many species found within the monument are vulnerable to pelagic fishing, including squid, mackerel, and butterfish, and the many species that feed on them. Deepwater fishing and bottom trawling gear also pose a major threat to the delicate balance of ecosystems found in the Canyons and Seamounts, whose species like deepwater corals and sponges have low resilience and a long recovery time from human damage. Even without officially allowing commercial fishing, the wide-reaching threats of fishing gear, human debris and pollution, and climate change invade the monument from every angle. The Gulf of Maine is one of the regions most severely impacted by warming ocean temperatures, and we must use every conservation tool at our disposal to preserve its richness.

The Northeast Canyons and Seamounts display the majesty and beauty of this section of God's creation in a unique manner like nowhere else on Earth. God formed this ancient underwater mountain range over 100 million years ago, long before humans walked the earth. As Christians, we know that we are called to care for this creation for generations to come. We are blessed to not only benefit from the climate stability and marine biodiversity of this place, but also to be able to explore and marvel at its beauty with modern technology and inclusive museum exhibits. Our faith calls us to ensure these blessings are as abundant for future generations as they are today and to use all the tools at our disposal to do so. Creation care is a dynamic and nuanced act of balancing the many needs of our human and non-human communities, and our lawmakers and elected officials have taken oaths to safeguard

the interests of their many constituents whose natural heritage this monument constitutes.

We applaud NOAA Fisheries for seeking to develop and implement a comprehensive management plan that addresses the threats to the Canyons and Seamounts and the government's legal mandate to protect the monument. Honoring this unique region requires that the final management plan prioritize ecosystem health and long-term preservation, specifically by incorporating the following elements:

- **Invest in expanded, real-time monitoring of the monument to ensure no commercial-scale extractive industrial activity is occurring within its bounds**
- **Make information gleaned from expeditions to the monument accessible and relevant to a broad and diverse range of stakeholders**
- **Conduct regular updates to monument regulations and management plans and utilize adaptive management to respond to urgent needs;**
- **When considering proposed activities in adjacent or nearby areas, consider the potential effects on the monument in assessing total impact**
- **Take immediate action to reduce greenhouse gas emissions, in light of the high generalized threat they pose to the monument**

The Canyons and Seamounts have been under human stewardship for just a small fraction of their millennia of existence, and effective management could mean preserving God's creation for millennia to come. Our community celebrates the strong support for monument stewardship from the public and appreciates the agencies responding to such support via this comment period. For the sake of God's creation, we ask you to create a management plan that truly respects and protects the Canyons and Seamounts.

[EXTERNAL] Letter from The Pew Charitable Trusts on management plan

[REDACTED]

Wed 1/25/2023 12:22 PM

To: NCSMNM Planning, FW5 ncsnm planning@fws.gov

Cc:

[REDACTED]

📎 1 attachments (142 KB)

NECSM Management Plan\_Pew Scoping Letter\_FINAL.pdf;

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Dear Superintendent Petersen,

Attached please find a letter from The Pew Charitable Trusts regarding the open public comment period for the Northeast Canyons and Seamounts Marine National Monument management planning.

We look forward to engaging in the process as it unfolds.

Sincerely,

[REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

Brittany Petersen,  
Marine Monument Superintendent, USFWS,  
300 Westgate Center Drive,  
Hadley, MA 01035  
[ncsmnm\\_planning@fws.gov](mailto:ncsmnm_planning@fws.gov)

January 25, 2023

Re: Comments on the Notice of Intent to Prepare a Management Plan for the Northeast Canyons and Seamounts Marine National Monument, FWS–R5–NWRS–2022–N062, 87 Fed. Reg. 79,901 (Dec. 28, 2022).

Dear Superintendent Petersen,

On behalf of The Pew Charitable Trusts, please accept these comments on the Notice of Intent to prepare a draft monument management plan for the Northeast Canyons and Seamounts Marine National Monument (NOI) and accompanying environmental assessment. Pew worked in coalition with scientists, business leaders, faith leaders, conservation groups, aquariums, and local government officials to support President Obama's designation of the Monument in 2016. We worked with our partners to mitigate the rollbacks to the monument's protections proposed in 2020. Pew and its partners worked again to fully restore the Monument's protections through President Biden's 2021 Proclamation, which also charged the Departments of the Interior and Commerce to prepare a joint management plan for the Monument by September 15, 2023. Pew supports your efforts to develop a management plan that ensures the proper care and management of the Monument and the scientific and historic objects it contains so that the full intent to preserve these invaluable resources is realized. The Pew Charitable Trusts would like to participate as a member of the planned Stakeholder Focus Groups, designed to further consider the public's ideas to form a foundation and framework to care for the Monument.

As human activities reach deeper into the sea, it is important to have places that serve as reservoirs of genetic diversity for the future. Scientific studies have proven that protections can improve the health and productivity of marine areas<sup>1</sup> and that species in protected areas spread, or "spill over," beyond their borders to repopulate nearby areas.<sup>2</sup> Protected places can also act as

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<sup>1</sup> Sarah Lester et al., [Biological Effects Within No-Take Marine Reserves: A Global Synthesis](#), *Marine Ecology Progress Series* 384: 33-46 (2009); Ellen Pikitch, [A Primer on Marine Protected Areas: Background for the 10x20 Conference](#), Ocean Sanctuary Alliance (2016).

<sup>2</sup> See, e.g., Sala et al., [A General Business Model for Marine Reserves](#), *PLOS One* 8:e58799 (2013); R. Gofii et al., [Net Contribution of Spillover From a Marine Reserve to Fishery Catches](#), *Marine Ecology Progress Series* 400: 233-43 (2010); F. Vandeperre et al., [Effects of No-Take Area Size and Age of Marine Protected Areas on Fisheries](#)

reference areas for how ecosystems function in the absence of human disturbance and boost climate change mitigation and adaption.<sup>3</sup> An effective management plan will help ensure important opportunities to study and mitigate the impacts of climate change to the Northwest Atlantic, and to educate the public about the wonders the Monument contains.

The NOI provides an excellent summary of the natural resources that formed the strong scientific foundation justifying establishment of the Monument. These include the Monument's exceptional geologic features and unique ecosystem that supports an incredible abundance and diversity of corals, seabirds, highly migratory fish, sea turtles and marine mammals, many of which are rare or are previously undiscovered species not found elsewhere in the world. These natural resources were recognized by federal courts in resoundingly rebuffing legal challenges seeking to overturn the Monument or weaken its protections.<sup>4</sup> The courts also affirmed prior law supporting the President's authority under the Antiquities Act to establish marine monuments in the Exclusive Economic Zone, and recognized that other statutes such as the National Marine Sanctuaries Act, the Magnuson-Stevens Fisheries Conservation and Management Act, the Outer Continental Shelf Lands Act, and other statutes do not provide the same protections as those provided under the Antiquities Act.<sup>5</sup>

Further, as Pew previously detailed in a letter to then Secretary of Commerce Ross,<sup>6</sup> the Monument was created after an extensive 18 month public process that included well attended public events, a public hearing with over 300 participants, submission of more than 300,000 public comments supporting the Monument's designation, including a letter signed by 145 marine scientists, and meetings between the Executive Branch and New England elected officials, commercial and recreational fishing businesses, fishing industry lobbyists and government relations specialists, fish processors, and other stakeholders. During the review of the Monument by the Department of Interior (DOI) in 2017, another 225,000 Americans expressed their support for the Monument.<sup>7</sup>

Recent studies affirm prior scientific opinion that protecting the Monument area will make a significant contribution to the overall health and productivity of the Northwest Atlantic, with a minimal economic cost.<sup>8</sup> A peer-reviewed study published in March 2022 by scientists from the

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[Yields: A Meta-analytical Approach](#), *Fish and Fisheries* 12(4): 412-26 (2011); Hilborn, R. et al. When can marine reserves improve fisheries management? *Ocean & Coastal Management*, 47(3-4), 197-205 (2004); Murawski, S.A. et al. [Effort Distribution and Catch Patterns Adjacent to Temperate MPAs](#), *ICES Journal of Marine Science*, 62: 1150e 1167 (2005).

<sup>3</sup> Juliette Jacquemont et. al., [Ocean Conservation Boosts Climate Change Mitigation and Adaptation](#), *One Earth*, 5 no. 10, 1126-1138 (2022); Duffy et al., [Biodiversity Enhances Reef Fish Biomass and Resistance to Climate Change](#), *Proc Natl Acad Sci USA* 113(22):6230-5 (2016).

<sup>4</sup> See *Mass. Lobstermen's Ass'n v. Ross*, 349 F. Supp. 3d 48 (D.D.C. 2018), aff'd as modified 945 F.3d 535 (D.C. Cir. 2019).

<sup>5</sup> See *Id.*

<sup>6</sup> Letter from Thomas A. Wathen, Vice President, Environment Americas, The Pew Charitable Trusts to Wilbur L. Ross Jr., Secretary of Commerce (July 27, 2017).

<sup>7</sup> *Id.*

<sup>8</sup> S.D. Kraus, et al., [Scientific Assessment of a Proposed Marine National Monument off the Northeast United States](#), *Science briefing for press and interested parties*, Final Version 31 (March 2016).



New England Aquarium showed that the Monument is a hotspot of marine mammal diversity.<sup>9</sup> Based on an analysis of sightings of more than 1 million marine mammals along the Atlantic Coast, including in the Monument, these scientists found that the Monument contained more marine mammal species diversity than virtually any other comparably sized area. Further, the biodiversity protections provided by the monument are having little economic impact to New England's commercial fishing industry. A January 2022 peer-reviewed study analyzed the areas fished, catch levels, and distance traveled to fish before and after the 2016 proclamation as well as before and after the 16 month reopening of the Monument in June 2020 and found no evidence that the Monument has harmed the commercial fishing industry.<sup>10</sup> This conclusion was recently affirmed by NOAA Fisheries in a November 2022 analysis that concluded that any economic losses associated with the monument are expected to be small, and that affected vessels may be able to relocate to minimize losses.<sup>11</sup>

The Northeast Canyons and Seamounts Marine National Monument is a unique and highly valuable national treasure. We urge you to develop a robust and comprehensive management plan that effectively protects its natural and cultural resources, promotes the research opportunities it provides to study these resources and the impacts of climate change to the larger Northwest Atlantic Ocean ecosystem, and educates and engages the public to ensure the Monument and our oceans are protected for generations to come. Pew is pleased to provide the following recommendations for your consideration in setting the Monument's long-term vision and guiding stewardship of the Northeast Canyons and Seamounts Marine National Monument.

## 1. Duty of Care, Goals and Objectives

### **Effectively Managing a National Treasure**

- The management plan for Northeast Canyons and Seamounts Marine National Monument should prioritize conservation that protects the Monument's unique ecosystem and biodiversity, provides opportunities to study its natural and cultural resources and climate impacts, and proactively engages the public to connect with and understand its wonders.
- The plan should establish a duty of care, goals, and objectives necessary to meet the public interests and purposes of the Monument articulated in the 2016 and 2021 Proclamations.

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<sup>9</sup> Brooke C. Hodge, et. al., [Identifying predictors of species diversity to guide designation of marine protected areas](#), *Con Sci & Pract.*, 1 (2022); see also Peter J. Auster, et. al., [A Scientific Basis for Designation of the Northeast Canyons and Seamounts Marine National Monument](#), *Front. Mar. Sci.*, (2020).

<sup>10</sup> Lynham, J. [Fishing activity before closure, during closure, and after reopening of the Northeast Canyons and Seamounts Marine National Monument](#), *Sci Rep* 12, 917 (2022).

<sup>11</sup> NOAA Fisheries, [Public Hearing Document: An Omnibus Amendment to the Fishery Management Plans of the Mid-Atlantic and New England Regional Fishery Management Councils to incorporate the Northeast Canyons and Seamounts Marine National Monument](#), p. 12 (November 1, 2022).

- Related to the duty of care, consistent with the 2016 and 2021 Proclamations the plan should clearly state for easy reference the activities that cannot be conducted inside the Monument, or considered in future iterations of the management plan, including the following:
  - Commercial fishing
  - Exploration or extraction of energy, oil, gas and/or minerals
  - Releasing or introducing species into the Monument
  - Altering the submerged lands, except for anchoring research equipment or maintaining submarine cables
- The management plan should include provisions for researching, characterizing, and monitoring the potential threats to the Monument in order to help anticipate and address such threats should they arise.

## 2. Characterizing the Monument's Natural and Cultural Resources

### **Inventory of the Monument's Natural and Cultural Resources**

- The unique ecosystem of the Northeast Canyons and Seamount Marine National Monument supports an incredible level of biodiversity including seemingly countless species of corals, seabirds, highly migratory fish, sea turtles, marine mammals, and many other species. In recent years, as scientists have conducted aerial surveys and dives with remotely operated vehicles, they have continued to observe new, rare, and endemic species. The management plan's early stages should provide for a broad range of research activities needed to assess and characterize a baseline of ecosystem health and biodiversity for the Monument and surrounding area including, but not limited to, the following:
  - The first systematic effort to comprehensively inventory of the monument's natural and cultural resources.
  - Continued study of the deep-sea coral ecosystem, including oceanographic measurements, and bathymetric and habitat mapping.
  - Research focused on characterizing other habitats including the pelagic ecosystem as well as the deep-benthic areas.

### **Scientific Exploration and Research Program**

- The Monument can play an important role in furthering our understanding of climate change impacts to our oceans. The management plan should include a scientific exploration and research plan that enables both government scientists and private researchers to study the impacts of climate change in and around the monument. Marine protected areas are an important tool for maintaining, restoring, and enhancing ecosystem resilience in a changing climate. The Northeast Canyons and Seamounts Marine National

Monument with its large size and protected status is a living laboratory that can contribute to our understanding of climate change impacts on ocean wildlife and habitats.

- A clear, research permitting system should be established and all research conducted within and around the Monument should be documented and made available to inform management decisions for both the Monument and the greater Northwest Atlantic Ocean ecosystem.
- To achieve the purposes for which the Monument was created, additional funding and logistical support is needed to improve the ability of agency personnel and scientists, as well as private researchers, to visit, study, and monitor the Monument on a regular basis.

### 3. Important Management Plan Components

#### **Process for Collaboration**

- The management plan should include a robust process to promote effective collaboration and coordination among federal management agencies and stakeholders in order help meet the challenges of managing and protecting the Northeast Canyons and Seamounts Marine National Monument.
- The plan should establish a Resource Advisory Council (RAC) composed of volunteers and citizens representing a variety of local interests and expertise including marine science, state and local government, tribal government, cultural resources, commercial and recreational fishing, ecotourism and recreation, local businesses, conservation, and the public at large. The RAC should include a youth representative to help ensure young voices are represented in guiding the ongoing management of the Monument and development of education/outreach initiatives.

#### **Monitoring and Enforcement Program**

- The management plan should include a permitting system for all allowable public activities as well as an effective monitoring and enforcement program to ensure compliance with the Proclamations' prohibitions, agency rules and regulations, and the plan itself to ensure the public's interest and purposes of the Monument are protected as intended.
- Beyond the current permitting system, the management plan should include a non-commercial fisheries management strategy and additional regulatory requirements that actively ensures that any recreational fishing is consistent with care and management of the Monument's scientific and historic resources. To the extent permitted, all vessels operating within or near the Monument should be required to operate with AIS, to record

and submit all catch data (including bycatch), and to make all retained catch available for analysis.

### **Management Plan Review and Update**

- The management plan should provide managers with an iterative and adaptive management framework, based on regular evaluation of management efforts and tactics towards meeting the plans' goals and objectives.
- The management plan should include the requirement to review and update the management plan periodically — at minimum every 10 years given rapidly changing ocean conditions due to climate change. We recommend that the first review and update occur within 5 years of plan adoption in order to adapt the plan to the first data and research results under the plan, including first systematic efforts to inventory the natural and cultural resources contained in the monument.

## **4. Education and Community Engagement**

### **Public Education and Outreach Program**

- While the Northeast Canyons and Seamounts Marine National Monument itself is not physically accessible to most people, its incredible biodiversity and, in many cases unique and spectacular creatures and other features, present an unparalleled opportunity to engage the public and educate them about both the Monument itself and the importance of our oceans to life on Earth.
- The management plan should thus approach its public education and outreach components with a broad and creative lens, creating engagement and collaboration opportunities for communities that would foster their connection with the Monument and ocean environment.
- The plan should establish Monument educational centers and/or exhibits in coastal states, including population centers such as Boston and New York City, as well as areas that see high tourism volumes, such as National Parks or Seashores in Maine and Cape Cod. The New England and Mystic aquariums have already been engaged in the Monument for years and provide ideal opportunities for education and outreach partnerships.<sup>12</sup>
- Offer virtual classroom and outreach opportunities for schools and the public to help educate children and the public about the Monument, which could include scientific

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<sup>12</sup> See e.g., Mystic Aquarium, [Our Blue Park: Northeast Canyons and Seamounts Marine National Monument](#), Exhibit (2023).

expedition livestreams, post-expedition educational videos, cultural awareness and connection activities, creation of curriculum and outreach materials, and storytelling.

- Engage government scientists and private researchers in sharing open-source data collected from the Monument for students to use for real world science projects and learning opportunities in order to help build connections to the monument.
- The education and outreach component of the plan should also place priority on reaching communities that have historically had limited access to oceans, nature, and outdoor spaces.

\*\*\*\*\*

Thank you for considering The Pew Charitable Trusts recommendations for developing the Northeast Canyons and Seamounts Marine National Monument Management Plan. Please contact me with any questions and regarding our participation as a member of the Stakeholder Focus Groups.

Sincerely,



[EXTERNAL] Comments re FWS & NOAA's intent to prepare draft monument management plan for the Northeast Canyons and Seamounts Marine National Monument

[REDACTED]  
Thu 1/26/2023 3:37 PM

To: NCSMNM Planning, FW5 ncsmmn planning@fws.gov

Cc: [REDACTED]  
[REDACTED]

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Dear Superintendent Petersen,

Attached, please find comments presented by Conservation Law Foundation on behalf of 949 members of the public regarding the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration's intent to prepare a draft monument management plan for the Northeast Canyons and Seamounts Marine National Monument.

Thank you,

[REDACTED]  
[REDACTED] (she/her)  
Ocean Associate Attorney  
Conservation Law Foundation

[REDACTED]  
[REDACTED]  
For a thriving New England



***Conservation Law Foundation presents this document on behalf of 949 members of the public.***

January 26, 2023

**Comments on:** The U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration's intent to prepare a draft monument management plan for the Northeast Canyons and Seamounts Marine National Monument

**Docket No:** FWS-R5-NWRS-2022-N062 FF05R00000 FXRS12610500000

**Document Number:** 2022-28203

Dear Brittany Petersen, Marine Monument Superintendent,

As New England residents, protecting our iconic ocean and all of the treasures within it is very important to us. We write today to urge you to create a comprehensive and strong management plan for the Northeast Canyons and Seamounts Marine National Monument because we are proud of this special place being a part of New England, and want to see it protected and thriving forever.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

We urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
- A scientific exploration and research plan that includes research on the impacts of climate change on the monument;
- A plan for conducting a comprehensive inventory of the monument's natural and cultural resources and for assessing the activities occurring in the monument;
- An effective monitoring and enforcement program to ensure compliance with Monument rules and regulations;
- A permitting system for allowable activities;
- A requirement to review and update the management plan periodically, at least every 10 years if not sooner. Such a review should be preceded by a comprehensive assessment of human uses, water quality, habitat, living marine resources, cultural resources and ecosystem services of the monument; and
- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Sincerely,  
949 members of the public

## [EXTERNAL] NRDC Scoping Comments on Proposed Joint Management Plan for the Northeast Canyons and Seamounts Marine National Monument

[REDACTED]  
Thu 1/26/2023 6:28 PM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

Cc: Petersen, Brittany L <brittany\_petersen@fws.gov>; Marianne.ferguson@noaa.gov  
Marianne.ferguson@noaa.gov

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Brittany and Marianne,

Attached are NRDC's Scoping Comments on the Proposed Joint Management Plan for the Northeast Canyons and Seamounts Marine National Monument We appreciate this opportunity to comment and look forward to engaging in the next steps in this process.

Yours Sincerely,

[REDACTED]

[REDACTED]

*Senior Strategist, Ocean  
Nature Program*

NATURAL RESOURCES  
DEFENSE COUNCIL

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

[NRDC.ORG](https://www.nrdc.org)

Please save paper





January 27, 2023

Brittany Peterson, Marine Monument Superintendent, USFWS

[ncsmnm\\_planning@fws.gov](mailto:ncsmnm_planning@fws.gov)

Marianne Ferguson, Greater Atlantic Regional Fisheries Office, NOAA

[marianne.ferguson@noaa.gov](mailto:marianne.ferguson@noaa.gov)

Re: Scoping for Proposed Joint Management Plan for the Northeast Canyons and Seamounts Marine National Monument

Dear Ms. Peterson and Ms. Ferguson,

On behalf of our more than half a million members and online activists, the Natural Resources Defense Council (NRDC) submits the following comments on the scope of issues that U.S. Fish and Wildlife Service (FWS) and the National Oceanic and Atmospheric Administration (NOAA) should address as these agencies develop a joint management plan for the Northeast Canyons and Seamounts Marine National Monument. These comments are submitted in response to the agencies' request for comments that was published in the Federal Register on December 28, 2022. See 87 Fed. Reg. 79901.

The Northeast Canyons and Seamounts Marine National Monument (NECSMN or the monument) is a unique national treasure that contains highly valuable and vulnerable species and ecosystems. President Biden's Proclamation requires the development of a joint Interior/NOAA management plan by September 15, 2023. We strongly urge the development of a robust, effective, and comprehensive management plan to ensure that this national treasure is protected and thrives for generations to come.

The management plan for the Northeast Canyons and Seamounts Marine National Monument should prioritize conservation outcomes that protect biodiversity, address the climate crisis, and provide opportunities for the public to connect with and understand the vast and inspiring wonders contained within the monument. To that end, we recommend that the management plan address the following key issues in the following manner.

### **Scientific Exploration and Research Program**

The monument management plan should include a scientific exploration and research plan for expanding our understanding of the many diverse forms of ocean life in the monument, from the surface of the ocean to the seafloor and in the water column in-between. The research plan should also provide for the study of the impacts of climate change in the monument. Marine protected areas are a key tool for maintaining, restoring, and enhancing ecosystem resilience in a changing climate. The monument's large size and protected status help make it an incredible living laboratory that can contribute to society's understanding of both the rich biodiversity of the deep sea, as well as the impacts of climate change on ocean wildlife

and habitats. Research conducted within the monument also should be designed to inform future monument management decisions.

### **Inventory of the Monument's Natural, Historic and Cultural Resources**

Slow growing deep-sea corals, large and rare marine mammals, seabirds, fish and rich array of other creatures all make this monument a haven for biodiversity. In recent years, as scientists have conducted dives with remotely operated vehicles (ROVs) and aerial surveys, they have observed new species with each visit. The Northeast Canyons and Seamounts Marine National Monument management plan should include a comprehensive inventory of these natural resources, as well as of historic or prehistoric remains (like those of the woolly mammoth at the head of one of the canyons) and any relevant cultural resources. It should also include a plan for periodically updating this inventory as scientific research results in greater understanding of the resources within the monument.

### **Assessment and Management of Activities in the Monument**

The management plan should include an assessment of the type, extent and impact of activities that are allowed in the monument as of September 15, 2023. Periodic updating of the assessment should be required during the life of the management plan. Moreover, the plan should provide for the use of permitting or other regulatory controls of such activities where necessary to protect monument resources.

### **Monitoring and Enforcement**

Pursuant to the Biden Proclamation, the Northeast Canyons and Seamounts Marine National Monument is off limits to the following activities: commercial fishing (with the exception of red crab and lobster fishing which are required to phase out operations by September 15, 2023); exploration or extraction of energy, oil, gas and/or minerals; releasing or introducing species; altering the submerged lands, except for anchoring of research equipment or maintaining submarine cables.

The management plan should include a list of these specifically prohibited activities, so it is absolutely clear to the public, the private sector and enforcement entities that these activities are not allowed.<sup>1</sup> The management plan also should include an effective monitoring and enforcement program to ensure compliance with the proclamation prohibitions and any agency regulations governing monument activities. To aid in this monitoring and enforcement system, the management plan should require that all vessels have their AIS turned on at all times while transiting through or operating within the monument. In addition, all commercial fishing vessels should have their VMS systems operating when transiting through the monument. This will assist the Coast Guard and NOAA in monitoring activity to help ensure that monument prohibitions and regulations are complied with. The availability of AIS data specifically will serve public transparency about the use of this national treasure.

### **Public Education and Outreach**

The monument management plan should include a robust public education and outreach component. It is important to create and share accessible and inclusive educational resources in multiple languages that convey the incredible biodiversity of this monument to the public. In addition, the outreach and education

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<sup>1</sup> The Secretaries of Commerce and Interior who share management responsibility for the Monument also have experience issuing joint implementing regulations, under their respective statutory authorities, to codify the prohibitions and management measures set forth in a Presidential Proclamation establishing a Marine National Monument. *See e.g.*, Northwestern Hawaiian Islands Marine National Monument, 50 CFR Part 404.

should not be limited to New England or the Northeast. This is a national, not just a regional treasure, and people all over the country should be made aware of it.

The education and outreach component of the management plan should prioritize serving communities that have historically not had access to nature and outdoor spaces. While the monument itself is not physically accessible to most people, we encourage NOAA and FWS to approach access to nature with a broader lens and create engagement and collaboration opportunities for communities that would foster a virtual connection with this area.

Additionally, FWS and NOAA should consider forming partnerships with groups like the Gulf of Maine Research Institute (GMRI) and other institutions that have connections with public school networks. They should seek opportunities to share with students, information about the monument, including live dive footage and information about new discoveries, inspiring young people with the beauty and richness of the deep sea.

### **Management Plan Review and Update**

The management plan should include a requirement to review and update the management plan periodically, at least every 10 years, and preferably sooner.

Thank you for this opportunity to comment.

Yours Sincerely,



[EXTERNAL] NEAq Comments Docket 2022 28203

[REDACTED]  
Thu 1/26/2023 8:29 PM

To: NCSMNM Planning, FW5 ncsmnm\_planning@fws.gov

Cc: [REDACTED]  
[REDACTED]

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Dear Superintendent Petersen,

Attached please find the New England Aquarium's comments on the Intent to Prepare a Draft Monument Management Plan for the Northeast Canyons and Seamounts Marine National Monument. Please confirm receipt, and we look forward to reviewing the Draft Management Plan once released

Best,

[REDACTED]  
Director of Ocean Policy  
Anderson Cabot Center for Ocean Life  
New England Aquarium

[REDACTED]  
(she/her/hers)



This electronic message contains information from the New England Aquarium which may be privileged and confidential. The information is intended to be for the use of the addressee only. If you have received this communication in error, do not read or circulate it. Please delete it from your system without copying it or saving any attachments and notify the sender by reply e-mail. Thank you.



*Protecting the blue planet*

January 26, 2023

Brittany Petersen  
Marine Monument Superintendent  
U.S. Fish and Wildlife Service  
300 Westgate Center Drive  
Hadley, MA 01035  
[ncsmnm\\_planning@fws.gov](mailto:ncsmnm_planning@fws.gov)

**Re: Comments on U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration's Intent to Prepare a Draft Monument Management Plan for the Northeast Canyons and Seamounts Marine National Monument**

Dear Superintendent Petersen,

The New England Aquarium (Aquarium) appreciates the opportunity to provide input on the Northeast Canyons and Seamounts (NCSM) Marine National Monument (Monument) Joint Management Plan. We applaud the United States Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration (NOAA) for taking a thoughtful and comprehensive approach to creating the NCSM Marine National Monument Management Plan (Management Plan). The intent to prepare a draft monument management plan for the Monument is an exciting and necessary step forward for the protection of this diverse area.

As a global leader in applied marine research and conservation practice, and a longtime research hub for Atlantic marine species, the Aquarium has been deeply involved with studying the NCSM region and its species for many years. The Monument contains some of the highest marine mammal [diversity](#) along the entire east coast.<sup>1</sup> We have observed a variety of species through aerial surveys in this area (e.g., Sperm Whales, Whale Sharks, Chilean devil rays).<sup>2</sup> We will continue to advocate for protecting this region of high marine mammal diversity, and look forward to supporting USFWS and NOAA ("the agencies") as the Management Plan takes shape so that it reflects the intent of Proclamation [9496](#), and provides for stewardship, access and care of this incredible area.<sup>3</sup> We submit our recommendations in the spirit of creating a strong, holistic Management Plan that will effectively steward this environment long after designation. We provide four recommendations below on what the Management Plan should include and prioritize.

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<sup>1</sup> Hodge, B. C., Pendleton, D. E., Ganley, L. C., O'Brien, O., Kraus, S. D., Quintana-Rizzo, E., & Redfern, J. V. (2022). Identifying predictors of species diversity to guide designation of marine protected areas. *Conservation Science and Practice*, 4(5), e12665. <https://doi.org/10.1111/csp2.12665>.

<sup>2</sup> Available at <https://www.andersoncabotcenterforoceanlife.org/blog/jan-2021-aerial-monument-survey/>; <https://www.andersoncabotcenterforoceanlife.org/blog/reflections-on-my-first-survey-marine-national-monument/>; <https://www.andersoncabotcenterforoceanlife.org/blog/high-biodiversity-seen-in-monument/>.

<sup>3</sup> Presidential Proclamation 9496 (81 FR 65161, September 21, 2016). See <https://www.federalregister.gov/d/2016-22921>

## **I. The Management Plan should prioritize public education and equitable access to the Monument.**

As the first and only Monument in the Atlantic Ocean, it offers a unique opportunity to educate the public on the importance of protecting marine spaces. While the public can visit National Monuments found on land and observe firsthand why certain distinct ecosystems are worth protecting, access is not as easy for a marine area located 130 miles offshore. Therefore, building opportunities for people of all backgrounds and circumstances to learn about and interact with the Monument holds a heightened necessity. Equitable access must include educational, language and cultural, and physical access. The prioritization of public education and equitable access is a great opportunity to meet the goals of President Biden's Justice40 initiative to move forward equity concerns.<sup>4</sup> The Management Plan should focus on identifying and engaging groups that have not had an opportunity to interact with marine monuments before, and enhancing interactive opportunities with those groups that are/were already engaged. For both, the Management Plan should consider a group's ability to interact given their cultural and geographical heritage.

Papahānaumokuākea Marine National Monument (PMNM) provides an effective example of how to carefully consider public access in Marine Monument planning. PMNM has a [webpage](#) specifically dedicated to public access.<sup>5</sup> Within this page, there is a virtual tour that takes participants through the uniqueness of the geography and the biodiversity housed within its boundaries. This page also promotes aquariums, museums, and learning centers that teach about PMNM or relevant pieces of the PMNM. Finally, Hawaii houses multiple outdoor experiences that highlight information about PMNM, including interactive signs and apps in other related outdoor regions.

We recommend that the NCSM Management Plan prepare accessible public education initiatives like the examples in PMNM, and associated funding mechanisms to support these education and outreach initiatives. The agencies should create a virtual tour using aerial and underwater photos and videos of marine life, seamounts, and canyons. This tour would allow the public to visit the Monument virtually and gain an understanding of the importance of protecting this area. The agencies should create an outdoor experience in the New England region with signs, walking tours, QR codes, and more to help the public interact with NCSM Monument, as if they were visiting the Monument. Even though the experience would not be physically located in the Monument, it would help people understand the value of protecting a nearby ecosystem that is intimately connected to the species found in more familiar coastal waters. Finally, the agencies should promote existing NCSM exhibits and encourage or support the creation of additional exhibits in informal and formal education settings alike (e.g., Aquariums, public schools).

The agencies must assure multi-lingual translation of signage and verbiage related to the Monument, culturally appropriate storytelling as informed by relevant groups, and diverse demographics of staff conducting these operations.<sup>6</sup> Additionally, if public excursions to the Monument are ever provided, equity concerns need to be considered and addressed in how those excursions are carried out, and scientific excursions would benefit from livestreaming or tracking of research cruises. All research related initiatives in the Monument should be open and available for public viewing, with associated plans to translate scientific results into communication and outreach materials as well as curriculum-based opportunities.

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<sup>4</sup> For detailed guidance visit <https://www.doi.gov/justice40-initiative>

<sup>5</sup> Available at [https://www.papahanaumokuakea.gov/access/public\\_access.html](https://www.papahanaumokuakea.gov/access/public_access.html).

<sup>6</sup> <https://www.doi.gov/justice40-initiative>

As an educational institution, in its daily operations, the Aquarium witnesses, and assesses how thoughtful marine education and outreach creates a more informed citizenry, motivates action on behalf of the planet, and inspires the next generation of ocean leaders. Due to the remote nature of the Monument, public education and access is especially crucial and therefore must be central to the Management Plan. Aquarium programming related to the Monument will include both on-site and off-site messaging intended to bring awareness to the Monument and involve people in the processes related to Monument designation and maintenance. The Aquarium will continue to serve as a convening space for conversations about the Monument, including focus groups, lectures, and discussions. Language about the Monument will be integrated where applicable into educational signage and interpretation within the building. Additionally, the Aquarium will seek out partnerships with people and groups who can offer access to or information on the Monument for Aquarium guests.

## **II. The Management Plan should amplify the voices and needs of those for which the Monument holds historical and cultural value, and incorporate their feedback into the education and management planning of the Monument.**

Inclusion of cultural knowledge and practices in the future planning of marine spaces is requisite for a comprehensive, equitable and lasting management strategy.<sup>7</sup> The agencies must consider and incorporate the cultural and historical significance of the NCSM area into the Management Plan, as the agencies did with PMNM and the Marianas Trench Marine National Monument (MTMNM).

Both PMNM and MTMNM demonstrate consideration of cultural heritage and historical relevance of the Monuments. PMNM's cultural heritage [webpage](#) details the history of the area, the cultural significance of the region to native Hawaiians, and the cultural uses that take place in the area.<sup>8</sup> It also describes how important cultural activities for native Hawaiians continue to be permitted within the site regardless of its designation as a Marine Monument. There is also a maritime heritage [page](#) that outlines native seafaring and ecological knowledge, archeological resources, and history of passage.<sup>9</sup> MTMNM's 2021 [Draft Management Plan](#) outlines that indigenous and local communities will help guide research and activities, and incorporate indigenous and local knowledge into Monument management.<sup>10</sup>

The NCSM Management Plan should include research and planning to encompass any historical and cultural heritage both in educational initiatives and in permitted uses of the NCSM area. Indigenous Peoples have always held important roles in protecting and stewarding the ocean. The Management Plan should reflect and uphold Indigenous perspectives, voices and knowledge. In particular, activities and outcomes associated with the Fifth International Marine Protected Areas Congress, IMPAC5, may benefit the Management plan.<sup>11</sup> For example, incorporating Indigenous ways of knowing, learning from

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<sup>7</sup> Bennett, N. J., Katz, L., Yadao-Evans, W., Ahmadi, G. N., Atkinson, S., Ban, N. C., Dawson, N.M., de Vos, A., Fitzpatrick, J., Gill, D., Imirizaldu, M., Lewis, N., Mangubhai, S., Meth, L., Muhl, E.K., Obura, D., Spalding, A.K., Villagomez, A., Wagner, D., White, A., & Wilhelm, A. (2021). Advancing social equity in and through marine conservation. *Frontiers in Marine Science*, 8, 994. <https://doi.org/10.3389/fmars.2021.711538> ; Zafra-Calvo, N., et al. "Towards an indicator system to assess equitable management in protected areas." *Biological Conservation* 211 (2017): 134-141; Zafra-Calvo, Noelia, et al. "Progress toward equitably managed protected areas in Aichi target 11: a global survey." *BioScience* 69.3 (2019): 191-197.

<sup>8</sup> For detailed guidance visit <https://www.papahanaumokuakea.gov/heritage/>.

<sup>9</sup> For detailed guidance visit <https://www.papahanaumokuakea.gov/maritime/>.

<sup>10</sup> For detailed guidance visit <https://media.fisheries.noaa.gov/2021-02/mtmnm-draft-management-brochure-final-web.pdf?null=>.

<sup>11</sup> Indigenous Experience at IMPAC5 available at <https://www.impac5.ca/indigenous/>.



indigenous protected and conserved areas, and understanding the connections between art, culture and ocean are a few of the planned priority areas of discussion for the Congress and will yield opportunities to bring the best in marine protected area design to the NCSM Management Plan.<sup>12</sup>

The agencies should seek input from a myriad of groups, including but not limited to, Indigenous groups, those with maritime history knowledge, archeologists, and all others in the region that can help inform the history and cultural significance of the area and integrate cultural and natural heritage approaches for the management of the area.<sup>13</sup> Then, the agencies should incorporate this information and feedback into the Management Plan. The agencies should continue collaboration with such groups throughout the process to develop and implement the Management Plan. Through our work with communities in Boston we understand the critical importance and value of engaging stakeholders and incorporating local knowledge, and we recognize how much work remains to be done. Amplifying voices of those with a cultural and historical relationship with the NCSM Monument is critical to long-term success of the Management Plan.

### **III. The Management Plan should identify other potential threats to the ecosystem that are not currently considered, and incorporate those threats into management strategies.**

The Aquarium has been deeply involved in [research](#) and data collection in the NCSM since before its original designation as a Monument in 2016.<sup>14</sup> We have seen firsthand how diverse this environment is for marine species through our [aerial surveys](#) and associated research.<sup>15</sup> But this ecosystem, like all ecosystems, is fragile. For example, submarine canyons face pressure from fishing, dumping of land-based mine tailings, oil and gas extraction, and climate change.<sup>16</sup> Climate change could modify the intensity of currents, which could result in changes in nutrient supply to the deep-ocean ecosystem and changes in the structure and functioning of canyon communities.<sup>17</sup>

The health of the NCSM ecosystem requires identification of all potential threats and a management plan that addresses them. The Management Plan needs to address overlapping activities, their associated stressors, and the interactions between these stressors, holistically.<sup>18</sup> The abundant species and habitat

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<sup>12</sup> Indigenous Peoples Leadership at IMPAC5 available at <https://www.impact5.ca/congress-details/program/themes-and-streams/streams/indigenous-leadership/>.

<sup>13</sup> Breen, Colin, et al. "Integrating cultural and natural heritage approaches to Marine Protected Areas in the MENA region." *Marine Policy* 132 (2021): 104676.

<sup>14</sup> Auster, P. J., Hodge, B. C., McKee, M. P., & Kraus, S. D. (2020). A scientific basis for designation of the northeast canyons and seamounts marine national monument. *Frontiers in Marine Science*, 7, 566. <https://doi.org/10.3389/fmars.2020.00566>.

<sup>15</sup> Hodge, B. C., Pendleton, D. E., Ganley, L. C., O'Brien, O., Kraus, S. D., Quintana-Rizzo, E., & Redfern, J. V. (2022). Identifying predictors of species diversity to guide designation of marine protected areas. *Conservation Science and Practice*, 4(5), e12665. <https://doi.org/10.1111/csp2.12665>.

<sup>16</sup> Fernandez-Arcaya, U., E. Ramirez-Llodra, J. Aguzzi, A. L. Allcock, J. S. Davies, A. Dissanayake, P. Harris, K. Howell, V. A. I. Huvenne, M. Macmillan-Lawler, J. Martín, L. Menot, M. Nizinski, P. Puig, A. A. Rowden, F. Sanchez, and I. M. J. Van den Beld. 2017. Ecological role of submarine canyons and need for canyon conservation: a review. *Frontiers in Marine Science* 4.

<sup>17</sup> Fernandez-Arcaya, U., E. Ramirez-Llodra, J. Aguzzi, A. L. Allcock, J. S. Davies, A. Dissanayake, P. Harris, K. Howell, V. A. I. Huvenne, M. Macmillan-Lawler, J. Martín, L. Menot, M. Nizinski, P. Puig, A. A. Rowden, F. Sanchez, and I. M. J. Van den Beld. 2017. Ecological role of submarine canyons and need for canyon conservation: a review. *Frontiers in Marine Science* 4.

<sup>18</sup> For more information on multiple interacting stressors and place-based approaches refer to Wedding et al., Linking multiple stressor science to policy opportunities through network modeling available at



diversity of the NCSM ecosystem depends on taking into account all existing and potential threats and plans for how to combat them now and into the future.

#### **IV. The Management Plan should utilize existing data on the Monument when considering future data collection.**

Scientific organizations have conducted consequential research on the Monument, and together this research led to the original designation of the area as a Monument.<sup>19</sup> The Aquarium has been a participant in data collection in the NCSM ecosystem for many years, and looks forward to providing scientific advice during the planned focus group phase of the Management Plan scoping process in 2023 and beyond. The Aquarium has collected aerial survey data in the NCSM since 2017. These data are critically important for understanding the effects of climate change and other potential threats to the NCSM ecosystem. In July 2021, the Aquarium published a study evaluating how reopening the NCSM to commercial fishing compromised species protections.<sup>20</sup> Data from the aerial surveys was used to compare effort corrected estimates of the exposure of marine mammals to commercial fishing under the protections provided by the original Monument designation and under existing fisheries management regulations.<sup>21</sup>

To ensure the Management Plan reflects accurate and comprehensive data on the NCSM ecosystem, we recommend that the agencies assess all previous data collection efforts in this region and work from this foundation to design future data collection efforts. We also recommend that the agencies prioritize obtaining and allocating the resources needed for data collection via various methods (e.g., aerial survey, boat-based, remotely operated, passive acoustics, etc.) in the NCSM. The data collected by the Aquarium and others represent valuable assets that can be used to assess threats to the NCSM ecosystem. Ongoing and future research can help us understand ecosystem features that support areas of elevated biodiversity and how to protect these areas in a changing climate.

The Aquarium recognizes that in order to implement the proposed initiatives these efforts must be adequately funded. Executive Order 14008 which was signed by President Biden in 2021 states a goal that 40 percent of certain Federal investments should flow towards communities of color and frontline communities.<sup>22</sup> The Aquarium is hopeful that funding opportunities associated with H.R. 2617, the “Consolidated Appropriations Act, 2023,” can support the development and implementation of both the Management Plan and environmental stewardship for generations to come.

The New England Aquarium continues to study the Monument, and we are committed to collaborating on effective management of this rich and diverse area of the ocean. We believe our recommendations will

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<https://www.sciencedirect.com/science/article/pii/S0308597X22003542>; Mach et al., Assessment and management of cumulative impacts in California’s network of marine protected areas *available at* <https://www.sciencedirect.com/science/article/abs/pii/S0964569116303647>; Prahl et al., It All Adds Up: Enhancing Ocean Health by Improving Cumulative Impacts Analyses in Environmental Review Documents, vol 33 Stanford Environmental Law Journal 351 (2014).

<sup>19</sup> See for example, Auster, P. J., Hodge, B. C., McKee, M. P., & Kraus, S. D. (2020). A scientific basis for designation of the northeast canyons and seamounts marine national monument. *Frontiers in Marine Science*, 7, 566. <https://doi.org/10.3389/fmars.2020.00566>.

<sup>20</sup> Redfern, J. V., Kryc K. A., Weiss L., Hodge B. C., O’Brien O., Kraus, S. D., Quintana-Rizzo E., & Auster, P. J. (2021). Opening a Marine Monument to Commercial Fishing Compromises Species Protections. *Frontiers in Marine Science*, 8, 2296-7745. <https://doi.org/10.3389/fmars.2021.645314>.

<sup>21</sup> Redfern, J. V., Kryc K. A., Weiss L., Hodge B. C., O’Brien O., Kraus, S. D., Quintana-Rizzo E., & Auster, P. J. (2021). Opening a Marine Monument to Commercial Fishing Compromises Species Protections. *Frontiers in Marine Science*, 8, 2296-7745. <https://doi.org/10.3389/fmars.2021.645314>.

<sup>22</sup> <https://www.whitehouse.gov/environmentaljustice/justice40/>.



**New England  
Aquarium**

*Protecting the blue planet*

help support our joint goal of protecting the Monument, its unique features, and associated species for many years to come. We thank the agencies for the opportunity to comment on the Management Plan, and we hope you will consider our recommendations.

Sincerely,

[Redacted signature block]

[Redacted signature]  
[Redacted name]  
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## [EXTERNAL] Recommendations for the Northeast Canyons and Seamounts Monument Draft Management Plan

Fri 1/27/2023 9:30 AM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Good Morning,

Please find attached recommendations on behalf of 41 organizations to inform the creation of Draft Monument Management Plan for the Northeast Canyons and Seamounts Marine National Monument (Docket Number: 2022-28203).

We thank FWS and NOAA for the opportunity to provide these comments.

Sincerely,

Azul

Blue Planet Strategies

Californians for Western Wilderness

Coalition to Protect America's National Park

Conservation Law Foundation

Creation Justice Initiative

Defenders of Wildlife

EarthEcho International

Earthjustice

Endangered Species Coalition

Environment America

Environment Connecticut

Environment Maine

Environment Massachusetts

Environmental League of MA

Friends of the Earth US

Healthy Ocean Coalition

Hispanic Access Foundation

Inland Ocean Coalition

International Fund for Animal Welfare

Jenkinson's Aquarium

League of Conservation Voters  
Marine Conservation Institute  
Mass Audubon  
Menunkatuck Audubon Society  
Mystic Aquarium  
National Aquarium  
National Ocean Protection Coalition  
National Parks Conservation Association  
National Wildlife Federation  
Natural Resources Defense Council  
Oceana  
Patagonia  
Santa Barbara Zoo  
Surfrider Foundation  
The Connecticut Audubon Society  
The New England Aquarium  
The Ocean Project  
The Wilderness Society  
Virginia Aquarium & Marine Science Center  
WILDCOAST

Best,

[REDACTED]

Government Relations Manager  
National Ocean Protection Coalition  
[www.oceanprotectioncoalition.org](http://www.oceanprotectioncoalition.org)

[REDACTED]



January 27, 2023

Brittany Petersen  
Marine Monument Superintendent  
U.S. Fish and Wildlife Service  
300 Westgate Center Drive  
Hadley, MA 01035  
ncsmnm\_planning@fws.gov

**Re: Comments on U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration's Intent to Prepare a Draft Monument Management Plan for the Northeast Canyons and Seamounts Marine National Monument**

Dear Ms. Petersen,

On behalf of the 41 undersigned organizations, we submit these comments to the U.S. Fish and Wildlife Service (FWS) and National Oceanic and Atmospheric Administration (NOAA) ("Co-Trustees") regarding their intent to prepare a draft monument management plan for the Northeast Canyons and Seamounts Marine National Monument ("Monument").<sup>1</sup>

President Obama designated the Monument in 2016 to safeguard fragile and interconnected ecosystems, improve ocean resilience, and sustain tourism, recreation, fishing, and other sectors of the New England economy that depend upon a healthy marine ecosystem.<sup>2</sup> Located about 130 miles off the coast of Cape Cod and encompassing three undersea canyons deeper than the Grand Canyon and four seamounts rising higher than any mountain east of the Rockies, the Monument is recognized as "one of the Atlantic Ocean's most biologically productive and important marine environments, and one of science's greatest oceanic laboratories."<sup>3</sup> The Monument spans only 1.5% of the Atlantic region of the U.S. Exclusive Economic Zone (EEZ) and 0.11% of the entirety of the U.S. EEZ, yet its diversity of topography, depths, and substrates protects a diverse array of marine life including deep-sea corals, fishes, sea turtles, whales, and seabirds.

The Monument is a national treasure that must now have a clearly defined and comprehensive management plan. As the Co-Trustees embark on the development of a management plan, it is critical to keep front of mind the recent recommendation from scientists worldwide: We must set aside at least 30% of land and ocean by 2030 to stem biodiversity loss and build resilience against climate change.<sup>4</sup> President Biden embraced this call when he restored protections to the Monument in 2021,<sup>5</sup> and the management plan should likewise prioritize conservation outcomes

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<sup>1</sup> See 87 Fed. Reg. 79,901 (Dec. 28, 2022).

<sup>2</sup> See Presidential Proclamation No. 9496, 81 Fed. Reg. 65,161 (Sept. 15, 2016) (the "2016 Proclamation").

<sup>3</sup> U.S. Department of the Interior, *Administration Leaders Applaud President Biden's Restoration of National Monuments*,

<https://www.doi.gov/pressreleases/administration-leaders-applaudpresident-bidens-restoration-national-monuments> (updated Oct. 8, 2021).

<sup>4</sup> See E. Dinerstein et al., "A Global Deal for Nature: Guiding Principles, Milestones, and Targets," *Science Advances* 5, no. 4 (April 2019): eaaw2869, <https://doi.org/10.1126/sciadv.aaw2869>.

<sup>5</sup> See Presidential Proclamation No. 10287, 86 Fed. Reg. 57,349 (Oct. 15, 2021) (the "2021 Proclamation").

that protect biodiversity and address the climate crisis to ensure the area will flourish. Marine protected areas are a key tool for maintaining, restoring, and enhancing ecosystem resilience in a changing climate,<sup>6</sup> and the Canyons and Seamounts provide strong and permanent protection to their highly vulnerable species and ecosystems. A successful management plan will guide future stewardship of this national treasure and ensure sufficient investment in safeguarding and sharing the story of this important place. To effectively manage the Monument and to achieve the goals, vision, and guiding principles of the 2016 and 2021 Presidential Proclamations, we offer the following recommendations.

***The management plan should include an action plan to inventory the Monument's resources and identify and minimize any impacts to those resources.*** As the only marine national monument in the U.S. Atlantic Ocean, the Monument provides refuge for spectacular wildlife and habitats. Among other things, the slow-growing deep-sea corals, large marine mammals, apex predator fish, migratory seabirds, and unseen critters make this area a biodiversity hotspot. Some of these deep-sea organisms are highly vulnerable to human disturbance.<sup>7</sup> To sufficiently protect these unique and fragile ecosystems, the Co-Trustees should undertake a comprehensive inventory of the natural and cultural resources contained in the Monument. Such an assessment will facilitate resource protection and provide a baseline for monitoring the area's health and productivity. The action plan should also assess current impacts to the Monument and address how the Co-Trustees will minimize such impacts.

***The management plan should establish a scientific monitoring, exploration, and research plan.*** It is estimated that only 50 percent of the potential species in the Monument have been discovered to date; much remains to be uncovered about these unique, isolated environments and their geological, ecological, and biological resources.<sup>8</sup> In recent years, scientists from government and academic oceanographic institutions have conducted limited research within the Monument using remotely operated vehicles (ROVs), airplanes, research vessels, and submarines—such research should be expanded to yield important new information about living marine resources. But beyond learning about what the Monument contains, scientists can also use this critical living laboratory to study the impacts of climate change and provide strategic information to managers. Therefore, the management plan should include a scientific monitoring, exploration, and research plan that seeks to document the biodiversity in the monument and answers pressing questions about the impacts of climate change on our ocean.

***The management plan should include a comprehensive public education and outreach program.*** The Monument is a public resource that serves as a unique opportunity for the public to

---

<sup>6</sup> See Jenna Sullivan-Stack et al., *A Scientific Synthesis of Marine Protected Areas in the United States: Status and Recommendations*, Front. Mar. Sci. Sec. Ocean Solutions (May 18, 2022), <https://doi.org/10.3389/fmars.2022.849927>.

<sup>7</sup> See Risk, M.J., et al., *Lifespans and growth patterns of two deep-sea corals: *Primnoa resedaeformis* and *Desmophyllum cristagalli**, *Hydrobiologia* 471, no. 1-3 (2002): 125–131; see also Roark, E.B., et al., *Extreme Longevity in proteinaceous deep-sea corals*, *Proceedings of the National Academy of Sciences of the United States* 106, no. 13 (March 23, 2009): 5204–5208.

<sup>8</sup> See Kelly NE, Shea EK, Metaxas A, Haedrich RL, Auster PJ. 2010. Biodiversity of the Deep-Sea Continental Margin Bordering the Gulf of Maine (NW Atlantic): Relationships among Sub-Regions and to Shelf Systems. *PLoS ONE* 5(11): e13832.

connect with and build an appreciation for our deep-sea ocean ecosystems. Because the Monument itself is not physically accessible to the public, the Co-Trustees should provide creative ways to connect the public to this special place. For example, previously live streamed research expeditions led to massive public engagement with the Monument, and similar events would provide a great opportunity for future engagement. It is important that such programs create and share accessible and inclusive educational resources in multiple languages. Additionally, education and outreach programs should prioritize serving communities that have historically not had access to nature and outdoor spaces.

***The Monument's management plan should include monitoring and enforcement programs to effectively protect the unique ecological resources within the Monument.*** When President Obama designated the Monument, his presidential proclamation identified numerous prohibited activities within the Monument's boundary.<sup>9</sup> The management plan should clearly define the prohibited activities within the Monument. Successful protection and maintenance of the Monument's ecosystems and biological diversity will require adequate monitoring and enforcement to prevent unlawful activities. The management plan should therefore include strategies to ensure adequate year-round monitoring and enforcement programs. Further, the Co-Trustees should identify strategic partnerships with local enforcement agencies to coordinate enforcement actions and share resources and information.

***The Monument's management plan should include the development of an effective permitting program to ensure compliance with Monument rules and regulations.*** The management plan should clearly set forth management measures for the activities permitted within the Monument (e.g., research and scientific exploration, sailing or bird and marine mammal watching).<sup>10</sup> It is essential that the Co-Trustees ensure permitted activities are performed consistently with care and management of the objects within the Monument. In addition to establishing monitoring and enforcement plans, the Co-Trustees should develop an effective permitting program. Such a program, including the permit application, evaluation, and granting process, should allow opportunity for public participation and be based on the best available science.

***The management plan should include a robust process to ensure effective collaboration and coordination among the Co-Trustees, stakeholders, and additional relevant agencies.*** As Co-Trustees of this remarkable area, FWS and NOAA must successfully coordinate to effectively manage the Monument. Additionally, to date, thousands of people from across the nation have raised their voices in support of the Monument. The management plan should include a robust process for continued engagement of the public and stakeholders in management of this extraordinary public resource. Finally, it is not only important for the Co-Trustees to successfully coordinate; they must also coordinate with the numerous other relevant federal agencies.

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<sup>9</sup> See 81 Fed. Reg. at 65,164-65.

<sup>10</sup> See 81 Fed. Reg. at 65,165.

***Finally, the management plan should include a requirement to review and update the plan periodically, at least every 10 years if not sooner.*** Such a review should be preceded by a comprehensive assessment of the status of human uses, water quality, habitat, living marine resources, cultural resources, and ecosystem services of the monument and enforcement of the monument's regulations. The management plan should then be revised to address issues that surface in the assessment.

We thank FWS and NOAA for the opportunity to provide these comments.

Sincerely,

Azul  
Blue Planet Strategies  
Californians for Western Wilderness  
Coalition to Protect America's National Parks  
Conservation Law Foundation  
Creation Justice Ministries  
Defenders of Wildlife  
EarthEcho International  
Earthjustice  
Endangered Species Coalition  
Environment America  
Environment Connecticut  
Environment Maine  
Environment Massachusetts  
Environmental League of MA  
Friends of the Earth US  
Healthy Ocean Coalition  
Hispanic Access Foundation  
Inland Ocean Coalition  
International Fund for Animal Welfare  
Jenkinson's Aquarium

League of Conservation Voters  
Marine Conservation Institute  
Mass Audubon  
Menunkatuck Audubon Society  
Mystic Aquarium  
National Aquarium  
National Ocean Protection Coalition  
National Parks Conservation Association  
National Wildlife Federation  
Natural Resources Defense Council  
Oceana  
Patagonia  
Santa Barbara Zoo  
Surfrider Foundation  
The Connecticut Audubon Society  
The New England Aquarium  
The Ocean Project  
The Wilderness Society  
Virginia Aquarium & Marine Science Center  
WILDCOAST



[EXTERNAL] Northeast Canyons and Seamounts Marine National Monument Proposed Joint Management Plan - Docket No. FWS-R5-NWRS-2022-N062

[REDACTED]

Fri 1/27/2023 5:02 PM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

Cc: NCSMNM, FW5 <ncsmnm@fws.gov> [REDACTED]  
[REDACTED]

📎 1 attachments (1 MB)

NASCA NCSMNM Comment with Exhibit A (27Jan2023).pdf

**This email has been received from outside of DOI. Use caution before clicking on links, opening attachments, or responding.**

Good afternoon, Ms. Petersen:

On behalf of the North American Submarine Cable Association ("NASCA"), attached please find NASCA's comments on the proposed joint management plan for the Northeast Canyons and Seamounts Marine National Monument.

Thank you for your consideration, and please let us know if you have any questions.

Sincerely,

[REDACTED]

[EXTERNAL] Earthjustice scoping comments for Management Plan

[REDACTED]  
Fri 1/27/2023 6:26 PM

To: NCSMNM Planning, FW5 ncsmnm\_planning@fws.gov

**This email has been received from outside of DOI Use caution before clicking on links, opening attachments, or responding.**

Dear Ms. Petersen:

Please find attached comments from Earthjustice regarding the Co-Trustees Notice of Intent to Prepare a Draft Management Plan for the Northeast Canyons and Seamounts Marine national Monument

Best,

[REDACTED]

[REDACTED]

(he/him)

Managing Attorney for Oceans

[REDACTED]

[earthjustice.org](https://earthjustice.org)



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January 27, 2023

**VIA EMAIL**

Brittany Petersen  
Marine Monument Superintendent  
U.S. Fish and Wildlife Service  
300 Westgate Center Drive  
Hadley, MA 01035  
ncsmmm\_planning@fws.gov

**Re: Comments on U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration's Intent to Prepare a Draft Monument Management Plan for the Northeast Canyons and Seamounts Marine National Monument**

Dear Ms. Petersen:

We appreciate the opportunity to provide these comments to the U.S. Fish and Wildlife Service (FWS) and National Oceanic and Atmospheric Administration (NOAA) ("Co-Trustees") as they begin to prepare a draft monument management plan for the Northeast Canyons and Seamounts Marine National Monument.

The Monument safeguards irreplaceable features, unique habitats, and both threatened and abundant marine biodiversity at a time when our oceans are undergoing rapid changes from climate change and suffering from the biodiversity crisis. In addition to providing a critical refuge for marine wildlife affected by these changes, the Monument can inspire generations of Americans with an example of what functioning ecosystems look like and what healthy and biodiverse marine habitat can be. A strong, clear, and effective plan that prioritizes conservation is essential to protecting this place for those generations. Earthjustice joined a host of partners on a separate letter detailing comprehensive recommendations for the plan and write separately to emphasize several of the foundational steps that should guide the Co-Trustees in fashioning that plan.

First, it's difficult to effectively protect what you do not know about or understand, so the plan should prioritize the research and exploration necessary to inventory the full extent of the Monument's unique physical, biological, and historical resources. Every research expedition to the Monument documents new discoveries and brings home new information and insights critical to protecting these waters. The plan should prioritize prompt and systematic collection of this information. This initial inventory and ongoing research should be paired with a robust monitoring plan that can provide meaningful and timely data to managers over time so they can



react and adjust management measures if/as conditions change or new science becomes available. At a minimum, the Co-Trustees should comprehensively revisit the management plan at least every 10 years to ensure that the assumptions and conditions animating its initial measures are still relevant and based on the best available scientific information.

Second, the full promise of the Monument depends on sharing its wonders, benefits, and inspiration with everyone. This includes thoughtful preparation of multi-lingual materials as well as ensuring that meetings, outreach, presentations, programs, and opportunities to visit the monument are well-publicized and occur at times and places where everyone can access them. This also includes consideration of ways to provide equitable access to funding and other resources to engage and enable ocean justice communities to experience the Monument.

Finally, it is vitally important that the Co-Trustees work together to adopt strong and clear regulations that enforce the regulations and the prohibitions governing harmful industrial activities, including commercial fishing, within the Monument. These joint regulations should prioritize clear definitions of prohibited activities and include robust and detailed monitoring and enforcement measures; allocating and providing the resources and funding to carry them out. We urge the Co-Trustees to work closely together and, as appropriate, adopt joint regulations that leverage the expertise and enforcement authority of each agency.

Thank you for the opportunity to provide these comments. We look forward to providing additional input as the Co-Trustees draft and finalize the management plan.

Sincerely,

A large black rectangular redaction box covering the signature of the Managing Attorney.A black rectangular redaction box covering the name of the Managing Attorney.

Managing Attorney, Oceans

**[EXTERNAL] FWS National Marine Monument Designation Public Comment**

Mon 1/30/2023 9:45 AM

To: NCSMNM Planning, FW5 ncsnmn\_planning@fws.gov

**This email has been received from outside of DOI Use caution before clicking on links, opening attachments, or responding.**

Dear Brittany Peterson,

After sitting in on public comment session this fall it seems quite likely that FWS will not consider any exemption for pot/trap fishing within the monument area. After the board finalizes its decision, please consider the following. Without any government mandate, Atlantic Red Crab took its own preventative measure year ago to mitigate the impact its fishing operation has on the environment. By switching to 150 trap trawl they dramatically reduced the amount of surface to ground line in their fishing area in one of the most radical industry driven measure to date in the fixed gear space. Also keep in mind that fixed gear pot fishing is far less impactful on the marine environment compared to mobile fishing strategies such as bottom trawl and dredge.

For the last year ARC has collaborated with our company, Ocean Data Network, to become the leading source of temperature/depth profile data collection along the New England shelf break. The data collected by the ARC vessel has been utilized by IOOS, WHOI, the U.S. Navy, Rutgers University, and various branches of NOAA to improve ocean models, weather forecasts, and contribute to research. The data collected by the ARC fleet is helping make the east coast EEZ safer and better understood ocean space for all stakeholders operating in the region.

We have built our business by forging strong relationships between historically divergent communities, the fishing industry, and the research community. We pride ourselves on finding the middle ground in which the two groups can have a mutually beneficial relationship. Unfortunately, the action taken by FWS, placing sweeping commercial fishing closure in the proposed national marine monument area without evidence of adverse impact on the region is working to completely undo the work we have accomplished in conjunction with NOAA led programs such as Study Fleet and eMOLT to build a trusting and collaborative narrative between the two communities. In many ways the divide this mandate creates mirrors the greater public discourse being played between political parties in the U.S. In such a politically polarized climate we, along with NOAA researchers who have been conducting similar projects throughout the northeast for over twenty years, work hard to bridge cultural gaps and build positive relationships between the communities. Closing off this particular region to all commercial fishing is the exact kind of governmental overreach without full understanding of the issue that has fueled conflict between industry and science in the past.

Please consider learning more about the collaborative projects being conducted in this area, and their tremendous value to the scientific community. Also, take the time to properly educate yourselves on the wide variation in fishing methods and thus the minimal negative impacts fixed gear pot fishing imposes on the marine environment. Oftentimes people outside the fishing industry perceive all commercial fishing practices as equally destructive and exploitative. The reality is that there are a multitude of gear types and approaches to fishing that vary widely in their impacts on the environment, with pot fishing being a low impact fishery. In fact, the ARC crab fleet earned the recommendation of the Monterey Bay Aquarium's SeaFood Watch and the New England Aquarium.

Allowing this data collection project to continue, even in some limited capacity, is in the best interest for all who utilize the northeast U.S shelf sea, as the data is creating a more informed, safer ocean space. Perhaps you would consider allowing just a select number of crab boats to continue fishing the region for continuous data coverage under some sort of provisional regulation for the good of science?

Thank ,



[Ocean Data Network](#)

[EXTERNAL] N'est Canyon & Seamount

[REDACTED]

Mon 1/30/2023 10:09 AM

To: NCSMNM Planning, FW5 <ncsmnm\_planning@fws.gov>

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To whom it may concern, please keep the northeast canyons and see Mount free of any commercialism  
whatsoever... no energy companies, no oil companies... keep all those leches away from it.

Thank you.

[REDACTED]

[REDACTED]

Licensed in CT & RI

RENE, ABR, CCIM, CRS, CBR

William Raveis Real Estate

39 East Main Street, Mystic Ct 06355

*Like my work? Please refer me to your family, friends and colleagues!* 😊🙏





[EXTERNAL] NCSMNM

Mon 1/30/2023 10:51 AM

To: NCSMNM Planning, FW5 ncsmnm\_planning@fws.gov

**This email has been received from outside of DOI Use caution before clicking on links, opening attachments, or responding.**

Dear FWS,

I would like to express my sincere disappointment with the closure of the canyons to fixed gear fishing. It appears that the agencies implementing these closures do not understand the difference between types of fishing, and just follow uninformed stereotypes and assume all fishing is bad. These are undoubtedly tricky issues, but I expect more from my government

I have reviewed the peer reviewed scientific publications around this marine monument extensively to ensure that I am indeed advocating for the right thing. From whales to corals, there is no documented negative impact of fixed gear fishing in this region Plus, most of the coral is deeper than any fishing occurs (we have the data)

Furthermore, excluding fishing will shut down the only sustained oceanographic data collection right along the shelf break. This region is the confluence of many different ocean feature, making it critical to monitor for climate change impacts locally and with the Gulf Stream which have global implications There is no other sustained subsurface observation nearby. This is effectively putting on a blindfold from an oceanographic perspective.

I have strived to understand this issue from an unbiased and educated perspective, and I expect the government to attempt to do the same

Thank you for your consideration,



[Ocean Data Network](https://oceandata.network/)

**[EXTERNAL] Northeast Canyons and Seamounts**  
Mon 12/5/2022 8:50 AM

To: NCSMNM Planning, FW5 ncsnmn planning@fws.gov

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Dear Superintendent Petersen,

I am a New England resident but protecting our iconic ocean and all of the treasures within it should be very important to all of us. For much too long we have taken the ocean and the life within it for granted. Most of us are not knowledgeable about its creatures or aware of the great destruction already perpetrated on this vital part of the earth.

The Canyons and Seamounts must have a clearly defined, publicly available management plan in place by September 15, 2023, that achieves the vision, mission, and guiding principles set forth President Obama's 2016 proclamation designating the Monument.

I urge you to develop and adopt a strong and effective management plan that will ensure that Northeast Canyons and Seamounts Marine National Monument and the diverse and abundant wildlife that call it home flourish for generations to come. The management plan should include the following key elements:

- A plan for a comprehensive public education and outreach program;
- A scientific exploration and research plan that includes research on the impacts of climate change on the monument;
- A plan for conducting a comprehensive inventory of the monument's natural and cultural resources and for assessing the activities occurring in the monument;
- An effective monitoring and enforcement program to ensure compliance with Monument rules and regulations;
- A permitting system for allowable activities;
- A requirement to review and update the management plan periodically, at least every 10 years if not sooner. Such a review should be preceded by a comprehensive assessment of human uses, water quality, habitat, living marine resources, cultural resources and ecosystem services of the monument; and
- Procedures to ensure effective collaboration and coordination among federal management agencies.

Please do everything in your power to develop a clear and comprehensive management plan for the Northeast Canyons and Seamounts. New England is counting on you.

Thank you,



# NORTHEAST CANYONS AND SEAMOUNTS MARINE NATIONAL MONUMENT



## FAST FACTS

### Where is the Monument located?

130 miles off the coast of  
Cape Cod, Massachusetts

### How large is the Monument?

3.1 million acres,  
approximately the size the  
state of Connecticut

### When was the Monument established?

In 2016 through  
Presidential Proclamation  
by President Obama

### What is the Monument protecting?

Four underwater  
seamounts  
& three submarine  
canyons

### What species live in the Monument?

Sharks, whales, dolphins,  
jelly fishes, sea turtles,  
anemones, crustaceans,  
deep-sea fish, corals,  
and many more

What are your ideas or comments for the future  
management of the Monument?

Name:

Email:

- Research on changes in biomass within the monument and in adjacent areas, i.e. spillover
- Observers on rec fishing boats, collect data, species, size
- Monitor changes over time, changes of climate
- Enforcement needed
- Data Portal - open to public
- Education important: only Monument in NW Atlantic; amazing species in our "back yard"

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What are your ideas or comments for the future  
management of the Monument?

Name:

Email:

LIMIT Recreational to  
Non commercial vessels.  
NO PARTY BOATS.



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What are your ideas or comments for the future  
management of the Monument?

Name: \_\_\_\_\_

Email: \_\_\_\_\_

would be great to research:

1. endangered species

2. marine mammals

3. abundance of species

fished Outside monument

4. connectivity to other  
canyons.

monitoring:

1. ships & potential  
fishing boats in area

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deep-sea fish, corals,  
and many more

What are your ideas or comments for the future  
management of the Monument?

Name:

Email:

So great to have  
this special place  
protected!

Thank you P. Obama &  
P. Biden.



Please see back for more information and additional writing space



# NORTHEAST CANYONS AND SEAMOUNTS MARINE NATIONAL MONUMENT



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management of the Monument?

Name: \_\_\_\_\_

Email: \_\_\_\_\_

Hey instead of flying those planes,  
Why not try using satellite images  
to check on stuff? I know  
the Ukrainians are using Maxar  
technology to spot Russian positions.  
So maybe you can spot whales.

And why not just close it to  
commercial fishing?

Oh - these Plastic Mechanical  
pencils are pretty lame.  
Plastic and they break when you  
use them.



# NORTHEAST CANYONS AND SEAMOUNTS MARINE NATIONAL MONUMENT



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deep-sea fish, corals,  
and many more

What are your ideas or comments for the future  
management of the Monument?

Name: [REDACTED]

Email: [REDACTED]

### Research

↳ How can we establish  
that the area is a  
nursery for marine mammals?

↳ Regular condition reports /  
science monitoring updates  
every 5 years

↳ Using this area as a control  
to understand fisheries pressure  
on unprotected Northeast  
Canyons

↳ surveys of Seamounts

↳ more underwater exploration

### Outreach

↳ work w/ schools, aquariums  
& universities to make this  
part of the curriculum

↳ art contests

↳ social media bracket

↳ local group lecture  
series

Please see back for more information and additional writing space

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What are your ideas or comments for the future  
management of the Monument?

Name: [REDACTED]

Email: [REDACTED]

VR Technology. Record whale  
sounds and put them Spotify.  
The Monuments podcast.  
Live stream salt water tanks.  
I would like to see a live  
seahorse birth. I would  
like ~~some~~ someone to create  
a game, similar to Subnautica,  
but with the monuments.  
I would like a scanner  
tool to discover seafloor.

I want a video that turns  
back time to see the  
mammoths walk the earth  
at the monuments.

I think a documentary voiced  
by "Halle Bailey", aka the  
little mermaid, is necessary.



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and many more

What are your ideas or comments for the future  
management of the Monument?

Name:

Email:

"It is critical to provide  
a firm description of biodiversity,  
define its importance and  
list from smallest to largest. The  
seafloor plants are interdependent upon  
each other."

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What are your ideas or comments for the future  
management of the Monument?

Name: \_\_\_\_\_

Email: \_\_\_\_\_

Sponsorships:

Mc Monument: A big mac w/ a  
fish fillet in it.

Monument Mobile: A large whale or  
Jellyfish car or a cellphone  
Service

Monument Mocha: Drink at  
Starbucks

Monumental: Craft beer w/  
Seaweed.

## Appendix E. Focus Group Report

# **Northeast Canyons and Seamounts Marine National Monument Management Plan**

## **Focus Group Summary Report**

Prepared by Kearns & West

For the U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration

May/2023

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## Overview and Background

Located 130 miles east-southeast off the coast of Cape Cod, the Northeast Canyons and Seamounts Marine National Monument was established by Presidential Proclamation in 2016 to protect and conserve its unique and pristine habitats, historic objects, and features of high scientific interest for current and future generations of Americans. As the first marine monument in the Atlantic, it is renowned for its rich and unique biodiversity, including deep-sea coral communities and concentrations of marine wildlife.

The U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration (NOAA) invited public input on Northeast Canyons and Seamounts Marine National Monument Management Plan through a series of public scoping meetings and a series of focus groups from December 2022 through April, 2023.

The public's engagement will help guide the creation of the Northeast Canyons and Seamounts Marine National Monument Joint Management Plan—a long-term vision and framework to provide proper care for the Monument's ecosystem, marine life, and natural and historical resources, as well as set priorities and goals for management in the future.

The Management Plan will consider the Monument's potential for research, exploration, conservation, learning, engagement, and more. We invite the public to share their ideas and suggestions to help set the Monument's long-term vision and guide stewardship priorities.

Kearns & West was contracted by the Department of the Interior's Office of Collaborative Action and Dispute Resolution to facilitate public scoping meetings, and assist with coding and categorizing comments received through public scoping comment period for the U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration (NOAA) [Notice of Intent](#) to develop a management plan for the Northeast Canyons and Seamounts Marine National Monument (Monument), published on December 28, 2022. This report follows the Public Comment Report, which summarizes the public comments received through the public scoping process. Kearns & West was also contracted to conduct focus groups as follow-up to the public comment period in order to gather additional information from interested parties needed to inform the Monument Management Plan.

The Kearns & West project team (hereafter "Project Team") produced two separate reports: one which summarized the recommendations that were received through public comments, and this report summarizing the information gathered during a series of seven focus group sessions conducted from February and March of 2023.



## Approach to Focus Groups

The objective of the focus groups was to gather additional information on four topics developed by the Project Team, USFWS, and NOAA: research and exploration, communication and community engagement, best management practices, and stewardship. An additional goal was to engage a large group of people who could collaboratively inform the Management Plan process.

The seven focus groups covering the four topic areas (research and exploration (2), communication and community engagement (1), best management practices (2) and stewardship (2) aimed to gather information for the Management Plan from several stakeholder and underrepresented groups. These groups included people involved in research and exploration (marine mammals, seabirds, geology, marine conservation, baseline monitoring and data development, etc.), communication and engagement (environmental education, outreach programming, community engagement, etc.), recreation and other user groups (recreational fishing, sailing, whale watching, bird watching, etc.) and marine protected area managers from both the USFWS and NOAA. The seven focus group conversations represented a mix of participants from various organizations, geographic areas, and interests surrounding the Monument, and will help inform the Management Plan and planning activities.

With review from the USFWS and NOAA tribal liaisons, the Project Team reached out to representatives from 14 state and federally recognized tribes to invite them to attend one of eight potential dates for focus groups with various topic area focus. With NOAA and USFWS input and recommendations, the Project Team also reached out to 105 individuals from 68 organizations who are researchers, environmental education professionals, government, recreational users, and the commercial fishing industry who may have interest in the Monument due to their professional associations and regional interest. Forty-two (42) individuals responded, and subsequently 35 attended a focus group. The focus groups were held virtually and scheduled at various times to accommodate schedules and time zones. Each focus group lasted 90 minutes. The Project Team facilitated the discussions based on a series of questions relevant to each focus group topic and developed a guide to structure the conversation. While the focus group guide provided structure for the conversations, each group varied in terms of interests and the Project Team made space for conversation to move in multiple directions during the focus groups. This guide, which was developed with USFWS and NOAA, can be found in the Appendix of this document.

This report summarizes the focus group discussions by organizing participant input according to the specific questions asked in the focus groups. For each question, the Project Team grouped and then summarized responses, preserving the original comments where needed for clarity in italics to represent direct quotes. Lists were used to summarize the responses in multiple instances for brevity.

## Objectives for the Focus Groups

The objectives, which were developed with USFWS and NOAA, for the focus group conversations included the following:

- Gather input on specific topics related to the Management Plan, including these broad categories
  - Stewardship
    - How to care for this space (the Monument)
  - Communication and Community Engagement
    - Communication planning for research and other news related to the Monument
    - Visual elements that would help people understand the Monument without going there
    - Engaging communities upstream on integrated management practices
  - Research and Exploration of the Monument
    - How to engage and connect researchers
    - Where to share research
  - Management Strategies and Approaches
    - Monitoring and enforcement
    - Marine-specific management best practices (lessons, advice, examples of great plans)
- Integrate suggestions from these focus groups that will aid in developing the Management Plan focus areas and approach (not covered in this report).

## Invitees and Participants

The Project Team initially developed a database of potential participants for the focus groups, aiming to include invitees from these groups:

- Researchers (biological, physical, socio-economic)
- Tribes (federal and state recognized)
- Environmental education professionals
- Marine management and monitoring/enforcement professionals
- Recreational users
- Fishing community (commercial and recreational)

The Project Team reviewed the potential participant list with USFWS and NOAA, refined the list, and sent out individualized invitations to attend focus groups to specific people in each of these groups. Invitees were asked to sign up for one focus group only and the Project Team encouraged invitees to select a focus group that centered on a topic of interest (General Stewardship, Communication and Community Engagement, Research and Exploration, and Management Strategies and Approaches). Forty-two (42) of 114 invited participants signed up to attend a focus group and 35 ultimately attended a focus

group. There were no responses or attendees from the 14 state and federally recognized tribes. This could be because this is the first time the Monument team had reached out to them, and the team is working on meeting with tribes individually ahead of asking them to take part in group activities.

### Key Topics and Schedule

- General (including Stewardship topics):
  - March 7th from 11am-12:30pm ET
  - March 10<sup>th</sup> from 11:30am-12pm ET
- Communication and Community Engagement:
  - Feb 21<sup>st</sup> from 11am-12:30pm ET
- Research and Exploration of the Monument:
  - Feb 23<sup>rd</sup> from 4pm-5:30pm ET
  - Feb 28<sup>th</sup> from 2pm-3:30pm ET
- Management Strategies and Approaches:
  - March 1 from 3:30pm-5pm ET
  - March 16<sup>th</sup> from 4pm-5:30pm ET

### Topics Covered by Question

#### General Questions

#### **When you think of this Monument what comes to mind?**

Participants from the Communication and Community Engagement (February 21st), Research and Exploration (February 23rd), Research and Exploration (February 28th), Management Strategies and Approaches (March 1st), and General topics (March 7th) focus groups shared the following insights:

- Biodiversity
- Ocean preservation
- Conflict with the fishing industry
- Protection from the fishing and extractive industries
- Representation of the whole water column, from corals to the surface with marine mammals
- Connectivity and dynamisms
- Abundance of wildlife
- Remoteness
- Awe, wonder, and hope
- Ocean wilderness
- Unique ecosystems, oceanographic features, and attributes to the Northeast region

#### **What do you think is the role of a monument?**

Participants from the Communication and Community Engagement (February 21st), Research and Exploration (February 23rd), Management Strategies and Approaches (March 1st), and General topics (March 7th) focus groups shared the following insights:

- Scientific value; an important living lab and a refuge for wildlife
- Biodiversity protection
- A source of pride for all Americans
- To educate people on what is happening with the oceans and the planet
- To protect the unique resources permanently
- As a reference for the other areas around it. As a unique deepwater habitat, it can serve as a reference area for similar deepwater similar habitats along the Eastern seaboard
- An ambassador for ocean conservation, the deep sea, and the Northeast region of the ocean
- A channel in which humans can communicate about the ocean and help the public recognize the ocean's value
- A way the public can appreciate the ocean and ocean conservation
- The challenges of connectivity specifically arose in response to this question in the Research and Exploration (February 23rd) focus group; Remotely Operated Vehicle trips were suggested as potential solutions

Have you had experience with other types of monuments? This Monument is 130 miles offshore – how does that change what you expect or how your experience may change? How does that change management practices? Should people be able to access this place? How or within what bounds?

Participants from the Communication and Community Engagement (February 21st), Research and Exploration (February 23rd), Research and Exploration (February 28th), Management Strategies and Approaches (March 1st), and General topics (March 7th) focus groups shared the following suggestions and insights:

- The biggest challenges of the Monument will be public interaction, access, and engagement.
  - A challenge of managing this Monument is ensuring people feel connected to this place, understand its importance, and have a sense of pride and ownership.
- The fact that the Monument is so far offshore poses a challenge and may make it difficult to manage because building a constituency is important to Marine Protected Areas; it would be beneficial to provide people with remote access in addition to images collected.
  - The Monument will require different strategies than land-based Monuments for ensuring that people feel involved and may also necessitate a different level of involvement.

- The remoteness of the Monument presents opportunities for virtual reality experiences which can engage members of the public regardless of their location. This could be combined with educational and outreach efforts.
- Though the distance is great, there are still tangible ways to connect people to what the Monument entails such as developing citizen science programs, setting up a live stream so people can see creatures swim by, or developing an art competition where children can create art inspired by the Monument.
- The Monument represents a challenge with conservation biology in general as people feel it is an important thing to protect even though it cannot be visited, and the remoteness keeps it protected.
- The Monument will be managed under the Antiquities Act unlike other Marine Protected Areas and will be the first that will have a management plan.
- The Monument will be unique as it plans to prohibit all commercial extractive activities.
- It should be restricted to educational, research, or recreational uses.
  - There should always be some kind of access for research or scientific purposes, even if limited. Managers should determine what “reasonable research” would be defined as.
  - Must reiterate the importance of permits in ensuring the Monument is used in a way that still ensures its protection.
- Looking to remote wildlife refuges as models for connecting people with isolated places.
- The remoteness of the Monument ensures minimal inherent conflicts because there will be minimal use of the Monument. Conversely, enforcement against unauthorized uses and monitoring for allowed uses will be challenges for the management team.
- From the Research and Exploration (February 23rd) focus group meeting, one participant shared a conversation with a close friend who is part of the Narragansett Tribe, regarding the Monument’s expansion and what that means for the Tribe. The individual hoped that the Monument would reach the shores, and they could continue their practices of hunting and gathering.

### **Where would you like to go to for information about the Monument and the Management Plan?**

Participants from the Communication and Community Engagement (February 21st), Research and Exploration (February 23rd), Research and Exploration (February 28th), Management Strategies and Approaches (March 1st), and General topics (March 7th) focus groups shared the following suggestions:

- Digital outreach such as websites and social media that are updated frequently

- Websites would be useful in advertising what kind of research is taking place, who are the partners, what are the publicly available reports, publications, etc.
- A multi-layered internet presence including a permanent website combined with the use of social media platforms, especially Instagram.
- Specifically, the management plan should be on different agencies' websites, such as the USFWS webpage, clearinghouse websites, and the Federal Register.
  - The management plan must be publicly available and then translated and structured in a way that is engaging to the public.
- Innovative forms of technology
  - Virtual reality experiences to ensure accessibility to the Monument
  - In some states, teachers struggle to meet state requirements around incorporating a certain amount of virtual learning into their curriculum in a meaningful way. Developing an app around the Monument could be a way to help bridge this gap and provide a useful resource.
- Periodic email updates/newsletters such as those done by Woods Hole Oceanographic Institute which includes a list of talks being given
- Sister programs with sanctuaries or other Monuments
- Integrated interdisciplinary study program
- Forum for scientists
- Establishing regular meetings where people are being convened to talk as part of the Monument management plan
- The U.S. Regional Fishery Management Council is a valuable resource for information for the fishing public.
- The NOAA Fisheries Management Council: personnel should share information through their already established networks.
- Aquariums and museums
  - Physically through exhibits as well as digitally through existing aquarium/museum Instagram accounts
  - The Ocean Portal as part of the Smithsonian Institution's Ocean Initiative
- Work with the public-school systems to build curriculums around the Monument with children.
- A citizen-led group such as "Friends of"
- Management should map out the different audiences the Monument will serve and work on understanding the varied outreach avenues for different stakeholder groups. The best mechanism for communication may depend on the type of audience.
  - It is important to understand who are the groups that will potentially use the Monument and figure out how to reach them to provide relevant information. It will be important to identify what people want to know

about the Monument and then understand how to convey that information to them.

### Stewardship Questions

#### **How would you like to see this place (the Monument) cared for?**

Participants from the General topics (March 7th) focus group shared the following suggestions and insights:

- Prioritizing deepening and maintaining understanding of the Monument in a host of ways should be a priority.
- Focus on monitoring such as inventorying the Monument's biodiversity, ecosystems, and ecological processes.
- Give precedence to protecting the Monument and shepherding it for future generations
- Outreach can also be a form of care as outreach allows more people to care for the Monument.

#### **How would you like to enjoy this place (the Monument)?**

Participants from the General topics (March 7th) focus group shared the following insights:

- Because there is an extensive range of values on how people enjoy natural systems, expanding the ways in which the Monument can engage the widest range of human values regarding wilderness presents a holistic strategy.
- Conducting outreach to educational institutions, including children and parents is important.
- Engaging with religious groups are a pathway to fostering nontraditional engagement in the Monument.
- The Monument should become a source of regional pride.
- Engaging with the region's native Tribes and different groups that may have had historical connections with the Monument
- Ensuring Monument imagery, such as photos and videos, is available on social media and other technology platforms will be critical for engagement.

#### **How should we share about progress made in caring for this Monument?**

- From the General topics (March 7th) focus group, two participants recommended focusing on science in sharing progress and updates on the Monument. One participant suggested creating a social science program to understand people's attitudes and values about the Monument over time and across the country, and economic surveys wherein NOAA and NIMS could engage their expertise in analyzing spillover effects. Furthermore, another participant suggested focusing on what is possible and tracking what has been accomplished in the Monument



i.e., keeping tabs on the number of internships placed, number of research projects done, number of animals sighted.

### **How can the Monument support ocean literacy?**

- From the General topics (March 7th) focus group, one participant suggested hiring an education coordinator on staff. Access to *ad hoc* data and materials that link to ocean literacy criteria would allow individual teachers to pull material for their classrooms and design effective curriculum.

### **Who should we partner with to care for this place (the Monument)?**

Participants from the General topics (March 7th) focus group offered the following recommendations:

- Partnering with scientific resources, specifically regional aquariums such as the Mystic Aquarium and New England Aquarium, as they have access to diverse audiences
- Revisiting the comment leaders (from the public scoping process) received as a foundation for potential contacts for partnerships
- Creating a formal partnership in the form of a Stakeholder Advisory Council for the preservation of the Monument

### **How would you like to be involved in the Monument?**

- From the General topics (March 7th) focus group, participants agreed they would like to be involved in the Monument in at least some capacity. One participant mentioned that time commitment is always a challenge.

### **What other thoughts or concerns would you like to share with us?**

- From the General topics (March 7th) focus group, participants agreed that any vessel that transits through the Monument should have their Automatic Identification System turned on. Transparency is critical to the preservation of the Monument.

## **Communication and Community Engagement Questions**

### **Where would you like to go to for information about the Monument and the Management Plan?**

Participants from the General topics (March 7th and 10<sup>th</sup>) focus groups shared the following responses:

- Web presence is needed.
- Podcasts
- Videos highlighting biological and geological uniqueness
- USFWS webpage
- Federal Register Notice webpage: *Identifying which items are important and frequently updated on the website such as marine mammal siting or links to ongoing research. More than an annual update, there need to be updates showing the activities ongoing in the Monument. There are also opportunities to utilize ships traveling through the Monument to ensure people are vigilant about collecting images or videos and narratives that could be linked to the page.*
- A clearinghouse website
- Social Media
- Public signage on the value of the ocean and the Monument
- A participant suggested developing a [Facebook? "Friends of" the Monument] Friends Group for the Monument.

### **What partnerships would be helpful in sharing information about the Monument?**

Participants from the General topics (March 10th) focus group made several potential partnership suggestions:

- Fisheries groups and commercial fishing community
- Commercial Fisherman's Research Fund
- Ocean Conservancy
- National Marine Educators Association
- NY State Marine Education Association
- Southeast New England Marine Educators Association (SENEMEA)
- American Fisheries Society – Southern New England chapter
- Professional groups and organizations
- Universities, research institutions, and specific professors
- Academic professional organizations
- NGOs involved in the marine sphere
- Industry including wind
- Nature-based tourism
- Whale watching
- Environmental organizations
- Political leadership in every area where there's going to be a national monument designation

**What is the potential for community engagement and collaboration with citizen science groups, community and arts organizations, educational institutions, local governments, tribes?**

Participants from the Communication and Community Engagement (February 21st) focus group made several suggestions for groups to engage and collaborate with:

- Scuba diving groups
- Sailing groups and conferences
- National Marine Educators Association
- Climate change focused partnerships
- Stone Living Lab Conference
- Align with existing national efforts like America the Beautiful
- National Network for Ocean and Climate Change Interpretation

**Have you experienced any unexpected challenges or opportunities partnering with any groups?**

Participants from the Communication and Community Engagement (February 21st) focus group made several comments on the challenges and opportunities associated with partnership:

- Competing priorities create challenges for making time for partnering
- Funding and compensation for partner's time – invest in those relationships
- *We have to operate in structures that demand funding and deliverables on specific timelines, which do not allow for relationship building the right way. How can we get people to realize the importance of investing in building partnerships and understating communities' priorities?*

**What tools/strategies have you used to better enable meaningful partnerships with these groups?**

Participants from the Communication and Community Engagement (February 21st) focus group made several suggestions for creating meaningful partnerships:

- *NOAA Ocean Exploration put out an RFP for community grants that allowed us to feature the Monument with certain districts in Rhode Island to do targeted programming, including bringing in a speaker from NOAA. It would be helpful to have more mechanisms like that to create opportunities for developing programming that reaches communities directly.*
- *There are various steppingstones of engagement. In my work, I need to convince people that investing in a child learning about science in kindergarten will make them a more invested citizen by the time they are ready to choose careers. However, it can be really hard to fund early education engagement.*
- *We have just begun a journey of better engaging diverse communities. We received a small grant focused on engaging BIPOC groups around MPAs. Through that, we created a series of listening sessions in order to hear from communities first, rather than make assumptions about what they care about. It was critical that we provided*

*food, stipends for participation, and that we had someone on staff who was well connected with BIPOC leaders in the region.*

### **What would community engagement look like or involve?**

Participants from the Communication and Community Engagement (February 21st) focus group made several suggestions for community engagement:

- *'Friends of' the Monument group*
- *Storytelling is very important to me. We could identify and highlight weird animals of the Monument, which would get kids and teachers really excited about the Monument and create a connection to the place in a fun way. You could highlight the unique adaptations these creatures have.*
- *You could invest in a high-quality podcast. I have been wanting to create a podcast where Peter Auster discusses the weird creatures in the Monument.*
- *Another way to give people a sense of ownership is developing an "adopt a reef" or "adopt a funny species" program. Every six months they can get updates on how the area is growing, or facts about the animal. This is also a great way to get funding.*

### **Do you have any specific suggestions for how to best engage with teachers?**

Participants from the Communication and Community Engagement (February 21st) focus group made several suggestions on how to engage with teachers:

- *It is very helpful to connect any content to the Next Generation Science Standards. Teachers are often excited by material but in order to get their principals on board, they need to show how content will help reach goals around meeting those standards.*
- *It would be good to partner with museums and aquariums to hold information on the Monument on their own websites, since those are places teachers are already used to going to.*
- *Suggest developing relationships with the National Marine Educators Association and NOAA Ocean Exploration, who already do educator workshops and have existing curriculum on things like canyons and seamounts.*
- *Can also explore working with the ocean exploration vessels. They fund teachers to come out which makes the teacher feel very excited about the topic and bring back pictures and experiences into the classroom.*
- *In some states, schoolteachers struggle to meet state requirements around incorporating a certain amount of virtual learning into their curriculum in a meaningful way. Developing an app around the Monument could be a way to help bridge this gap and provide a useful resource.*

### **What are your thoughts on the use of symposiums, speaking events, or other in-person events?**

Participants from the Communication and Community Engagement (February 21st) focus group made several suggestions for events to consider presenting at or taking part in:

- *A symposium would need to be a collaboration with an existing symposium or event, where one talk is dedicated to the Monument. There is a small, self-selecting group of people who are specifically interested in this Monument, but collaboration can help expand people's awareness and interest.*
- *Relevant symposiums and events include: Impac5, Capitol Hill Ocean Week, World Ocean Day. We can also find local events and opportunities.*

### Research and Exploration Questions

#### **What should we be exploring in the Monument?**

Participants from the Research and Exploration (February 23rd) and Research and Exploration (February 28th) focus groups suggested exploring the following items:

- How the Monument can serve as a 'baseline' or reference point for comparing data coming from areas being more actively used vs. areas that are conserved: *This can take the form of comparing use of passive acoustic monitoring systems between the Monument and busier areas to explore the natural variability of underwater soundscapes and how they are changing due to climate change; comparing wildlife surveys between the Monument and areas experiencing resource extraction.*
- Integrating visual and acoustic observation of marine mammals.
- Developing co-located studies, correlation studies, and connectivity studies.
- Coupling connectivity studies with genetic information and larval dispersal monitoring.
- Placing long-term observatories in the Monument.
- Shipwrecks and archeological assets.
- Conducting direct surveys on fish and invertebrates, as well as marine mammals and seabirds.
- Disentangling the effects of shipping by monitoring spaces inside, outside, and adjacent to the Monument.
- Ghost fishing; specifically understanding if ghost gear is functioning as it should
- Recreational fishing and shipping.
- Categorizing shipping in the area: where it's going, where it's coming from, are there alternative routes?
- The potential impacts of extraction in adjacent canyons.
- Dark skies: *what they might look like in places like the Monument, whether that's for cultural practices, like celestial navigation out in the Pacific, or for bat and bird communities.*

- Potential for replicating some of the research being done by David Robinson and The Narragansett Tribe closer to shore around paleo-habitats, and evidence of people living there.

### **What should we be monitoring in the Monument?**

Participants in the Research and Exploration (February 23rd), Research and Exploration (February 28th) and General topics (March 7th) focus groups shared the following suggestions and insights on monitoring:

- The Monument should list and categorize activities taking place and have mitigation strategies for those that pose the highest level of threat. The Management Plan should have a feedback loop and set a time for updating the Management Plan, such as every 10 years.
- Those managing the Monument should determine what would be considered 'reasonable research' that would be allowed to happen in the Monument.
- Certain types of crafts should not be allowed in the Monument so that the Monument can be more of a quiet space for the species that need sound and communication for their life history.
- Should gather data that shows how stopping pot or crab fishing has benefits, to use as evidence for restricting fishing.
- Should set up a longer monitoring network within the Monument to facilitate long-term data collection to understand climate-based change. The network can be set up for a lot of different types of baseline biological and chemical information. There may be ways to do this remotely.
- Should use monitoring to determine if models are correct -- are we able to find highly diverse areas where we expect them to be?
- Note that there are considerable economies of scale that can be achieved by doing monitoring as part of a broader system. For example, the cost of a buoy network can be steep but it has been shown that a buoy network, originally set up by and for physical oceanographers, has been very valuable for biological and ecological research as well.

### **What kind of partnerships would you like to see for research and exploration?**

Participants in the Research and Exploration (February 23rd), Research and Exploration (February 28th) and General topics (March 7th) focus groups suggested developing partnerships with:

- A neighborhood regional ocean observing system.
- Groups similar to Brookline Bird Club but for marine mammals.
- Tribes: *for example, Mashantucket Pequot Research Center.*
- Museums in Newport, RI doing historical research in the area, including the travel of slave ships from Africa and the Caribbean to Newport.
- Groups similar to seabird groups that focus on sea turtles or marine mammals.

- Various government agencies including NOAA, BOEM, and NASA.
  - They shared that these partnerships can facilitate greater connectivity between research projects within and outside of the Monument, and greater cost effectiveness.
  - For example, BOEM is interested in setting up a coast-wide passive acoustic monitoring system that could allow work being done in the Monument to be connected to a larger system.
- Agencies such as Coast Guard, Department of Defense, and Homeland Security
  - From the General topics (March 7th) focus group, one participant shared that an automatic identification system (AIS) is needed but also partnerships with the Coast Guard and the National Incident Management System (NIMS) are critical. They suggested that for enforcement, the Coast Guard could make the Monument part of their overflight tracks and have a list of items to look out for on their flights then report back. They also recommended that the Monument partner with the Coast Guard for patrol and NIMS for research cruises to be able to collect data, such as on marine debris.

Additional insights around partnerships included:

- From the Research and Exploration (February 23rd) focus group, one participant suggested developing collaborative research partnerships across organizations and disciplines. Given cost and difficulty of going out into the Monument, it would be valuable if one research trip could include people from across disciplines, i.e., a trip including an oceanographer, someone sampling whaling breath, a bird observer, all on the same boat.
- From the Research and Exploration (February 28th) focus group, a participant shared that to build capacity for enforcement, we should try to engage people who are there for other purposes involved in research. For example, leveraging recreational fisherman that are allowed there to do some kind of research, to get invested in the Monument and be looking out for its best interests.
  - Could consider allowing a small group of commercial fishermen in and use that data scientifically.

### **How would you like to learn about the Monument's research and exploration?**

Participants from the Research and Exploration (February 23rd) and Research and Exploration (February 28th) focus groups shared the following suggestions:

- Should find a way to easily share about the Monument, without making people feel bad about its general inaccessibility.
- Should connect what is happening in the Monument to what is happening in people's communities.



- Should establish a dedicated website for information on the Monument.
- Need to be creative in thinking how to connect people to a place that is hard to get to. Should invest in camera systems and a mooring cable that shoots satellites.
- Should share live recordings when people do deep dives.
- Scientists (like themselves) need to share more to get newer scientists excited about these efforts.
- Should effectively communicate the intrinsic value of the Monument to people who may never see it.
- Should use press coverage (like morning talk shows) to get people excited about the Monument.

### Management Strategies and Approach Questions

#### **What are the best management practices you would suggest we take into account?**

Participants from the Management Strategies and Approaches (March 1st) and Management Strategies and Approaches (March 16th) focus group shared several suggestions:

- Basic best management practices include transparency and consistent communication. This entails ensuring all documentation related to the Monument is easily accessible and digestible.
- Management should create a scientific monitoring and research plan. Establishing an inventory of the Monument's resources then monitoring those resources will be essential to the management of the Monument.
- There is a need to assess the kinds of activities going on in the Monument to understand how the Monument is being used and the extent of those activities overtime.
- Review the work of the California Network of Marine Protected Areas as a beneficial resource. Best management practices should be inclusive of an array of stakeholders, including Tribes, and be built on resources that are products of good, peer-reviewed science.
- Tapping into local communities and advisory groups can cause burnout among a small number of volunteers who are frequently consulted for guidance by many different agencies. A barrier to engagement for community members has been an interest in being compensated for their time. Capacity building throughout local communities is crucial; this can be achieved through connection and knowledge sharing.
- Staff must be deliberate and intentional about bringing in groups of people interested in these places and asking for their help. The more managers continue to reach out, the more people will start to get engaged.

#### **Regulations that help shape management of vessels in the Monument?**

Participants from the Management Strategies and Approaches (March 1st) focus group made the following suggestions and insights:

- All vessels should always have AIS on while transiting or operating in the Monument.
- Noting that the Monument's location on the border of the exclusive economic zone boundaries will make it unique in terms of ships traveling from international waters. Should condense any vessel traffic into a shipping lane to minimize the impacts of shipping on the environment.
- Partnerships with the Coast Guard and the National Incident Management System (NIMS) are critical to enforcement in addition to AIS tracking. There needs to be a way to identify and track AIS through radar or a visual camera, such as installing real time cameras on monitoring buoys.
- Should explore traffic management methods, rooted in understanding the potential impacts to marine resources from vessel traffic. This underscores the value of writing monitoring assessments into the Management Plan to understand how much vessel traffic is in or around the Monument.

**What models for ethical guidelines for using the Monument – such as Leave No Trace – would be helpful to use in the Monument?**

Participants from the Management Strategies and Approaches (March 1st) focus group offered the following suggestions:

- “Stay the Trail” initiative as used in Colorado.
- Using signage to alert people that they are entering a Marine National Monument and create accessible lists of what is allowed and what is not allowed in the area. Communication is a key success strategy.
- Collaborating with the recreational fishing community on how to operate carefully in a special place like the Monument as recreational fishing has a long history of working with conservation initiatives.
- There needs to be a clear, concise explanation in the Management Plan of the applicable regulations that will affect the activities allowed in the Monument. What additional regulations will be needed in the Monument, and further clarification on which existing rules apply to the different uses of the Monument in the Management Plan. Considerations should be made for additional proposals that would strength monitoring and enforcement. Developing a comprehensive use assessment is critical in helping understand where to best utilize resources for Monument management.
- It would also be beneficial to consider joint regulations among all agencies involved, particularly DOI and NOAA as done in Hawaii. It would be helpful to bring together both agencies’ legal authority and management capabilities on the full suite of activities.

## **How do we create access to the monument to communities equally?**

Participants from the Management Strategies and Approaches (March 1st) focus group shared several insights:

- Should reach out to traditionally disadvantaged or overlooked communities. One participant noted that it is critical to reach out to underserved communities directly and ask what access means to them.
- Should utilize real time data stream acoustics to allow visually impaired people to experience the Monument.
- Should target different audiences of the different uses of the Monument.
- Keeping tech outlets updated will help with equitable access, whether that be socials or websites, newsletters, etc.
- Need to discuss cable laying. NOAA and NMFS have designated coral protection areas and there is an ongoing discussion regarding whether offshore wind should be able to lay cable through them. Allowing any more cable laying or extraction in the Monument should not be allowed.

## **What was your role during the Management Plan process for your Monument?**

- From the Management Strategies and Approaches (March 16th) focus group meeting, participants noted that several marine Monuments do not yet have Management Plans in place and are in the process of writing them. Some plans have been repeatedly put on hold.

## **What were the challenges during the drafting of your Management Plan?**

- From the Management Strategies and Approaches (March 16th) focus group meeting, one participant noted that the Rose Atoll Marine National Monument shared areas designated as marine sanctuaries. Sanctuaries became a new stakeholder involved in the management process; the coming together of many new players posed a significant challenge. However, partnerships also enable staff to accomplish more work.

## **How did you incorporate an Environmental Assessment into your plan?**

Participants from the Management Strategies and Approaches (March 16th) focus group shared the following insights:

- One of the biggest challenges is understanding the ways in which different agencies handle the National Environmental Policy Act (NEPA). Managers should ensure the plan gives the needed coverage for the activities proposed.
- Although most activities should be done jointly, past experiences have prompted staff to allow the agency that can complete the necessary work faster to lead the effort.

### **What role did enforcement have in your Management Plan?**

Participants from the Management Strategies and Approaches (March 16th) focus group shared the following insights:

- All participants agreed that enforcement is one of the biggest challenges faced by Marine Monuments. The Coast Guard is an extremely valuable resource in enforcement alongside NMFS law enforcement.
- Managers utilize many different types of technology and satellites to track vessels throughout the Monument.
- Suggested reaching out to nonprofit groups such as Global Fishing Watch for applicable data.
- Recommended contacting the New England Regional Fishery Council as an avenue to stay in tune with any updates.

### **What partners did you engage in developing the plan?**

Participants from the Management Strategies and Approaches (March 16th) focus group shared the following responses:

- Department of Defense, particularly the Coast Guard. The Coast Guard has some interest in relation to enforcement and they may provide comments on documents. Consistency in relationship building is key.
- Local Indigenous groups, communities, and advocacy associations.
- Relevant local communities of the Northeast, such as fisherman from Rhode Island.

Other insights on partnerships included:

- The importance of collaborative, multi-stakeholder committees such as intergovernmental working groups, joint management teams, community groups, and Monument Management Board to more effectively facilitate collaboration.
- The hardest part of co-management can be meeting all the requirements and statutes of all different agencies. The best solution is to try to write the plan that is needed for the place and think about how we best collectively manage the area.
- Partners engaged in developing a plan and managing a Monument are highly variable to the local area and the stakeholders involved.

### **How do you plan to engage the public in on-going Management Plan processes/programs that come after the establishment of the Plan?**

Participants from the Management Strategies and Approaches (March 16th) focus group shared the following insights:

- It is important to have a liaison on staff.

- Continuity is critical when there are events out of a manager's control. Reaching out to people and forming consistent relationships is crucial.
- Community groups as well as advisory groups are critical in keeping management accountable.
- It is valuable to form community groups and hold forums to accommodate different cultural perspectives. Managers of monuments must navigate the different approaches that various authorities have in engaging the public. Specifically in the Northeast, co-stewardship and co-management will involve engaging local communities in their knowledge and understanding of the ocean.
- It is valuable to create a "Friends of" the Monument group in an informal collaborative advisory way.

**Is there anything else about your experience developing a Management Plan that you think would be helpful to share?**

Participants from the Management Strategies and Approaches (March 16th) focus group shared the following insights:

- Bringing people to these remote places is important and is the responsibility of managers.
- Although formal groups do have a role in community outreach, the main task of managers should be to bring the Monument to the people through social media and other outreach efforts.
- There is immense value in bringing many different types of people to engage with Monuments, such as teachers, artists, and members of the public. It is the most effective way to spread the message to the larger community as a more informal method of community outreach.
- Indigenous groups, community members, and teachers continue to help create new ambassadors that can spread information throughout local communities.
- For the Northeast Canyons and Seamounts Marine National Monument, Monument staff should work to bring the history of the Northeast to local people.

## Appendix A

### Kearns & West

#### Northeast Canyons and Seamounts National Marine Monument Management Plan

##### Focus Group Guide

This guide was developed with input from USFWS and NOAA to structure the focus group conversations. The Project Team developed questions related to several topics, knowing that not all questions would be addressed by each focus group. This document was used by the Project Team, and not distributed to focus group participants.

##### Overview and Background:

The Northeast Canyons and Seamounts Marine National Monument (NCSMNM) was established in 2016 by President Obama encompassing 3.1 million acres in two units 130 miles southwest of Cape Cod, MA. The NCSMNM is the first marine monument in the Atlantic Ocean and the closest marine monument to 25% of the United States of America's population. The Monument contains unique features that hold international scientific interest and will serve as a site to further deepen our understanding of climate change, ocean habitat management, and the exploration of our world's least explored habitats. Drafting of the marine Monument Management Plan started in 2017 following the designation of the NCSMNM. The foundations of the affected environment were described – that draft will be used for engagement materials during the planning process.

The Monument's management responsibilities are shared by the United States Fish and Wildlife Service (USFWS) and the National Atmospheric and Oceanic Administration (NOAA) through the following regulations:

- USFWS- National Wildlife Refuge System Administration Act, the Refuge Recreation Act, and the Endangered Species Act (for species regulated by FWS), and Public Law 98-532 and Executive Order 6166 of June 10, 1933.
- NOAA- Magnuson-Stevens Fishery Conservation and Management Act, the Endangered Species Act (for species regulated by NOAA), the Marine Mammal Protection Act.

USFWS and NOAA were charged by President Biden to develop a joint Management Plan for the NCSMNM by September 15, 2023, building on the 2016 Proclamation establishing the Monument, for the proper care and management of the objects of historic and scientific significance found within the Monument's boundaries.

##### **Focus Groups:**

The objective of these focus groups is to engage the Monument's community in a collaborative planning process that would inform the Monument's management within the bounds of its guiding Proclamations and engages the community on planning efforts. The project seeks to engage Monument community members including underrepresented groups and Tribal Nations. Management Planning topics would include but not limited to research, community engagement and outreach, environmental education, and recreation.

These focus groups aim to collect suggestions for the Management Plan from several participant groups, including people involved in research and exploration (marine mammals, seabirds, geology, marine conservation, baseline monitoring and data development, etc.) , communication and engagement (environmental education, outreach programming, community engagement, etc.), recreation and other user groups (recreational fishing, sailing, whale watching, bird watching trips, etc.).

The Project Team has identified 6-8 participants for 7 separate **focus group invitations**. These conversations represent a cross-section of organizations, geographic areas, and interests within the NCSMNM, and will help inform the Management Plan and planning activities.

#### **Objectives for the Focus Groups:**

Gather input on specific topics related to the Management Plan, including three broad categories:

Communication and Community Engagement

Communication planning for research and other news related to the Monument

Visual elements that would help people understand the Monument without going there

Engaging communities upstream on integrated management practices

Research and Exploration of the Monument

How to engage and connect researchers

Where to share research

Management Strategies and Approaches

Monitoring and enforcement

Marine specific management best practices (lessons, advice, examples of great plans, ect)

Integrate suggestions from these focus groups that will aid in developing the

Management Plan focus areas and approach

#### **Participants:**

- Researchers (biological, physical, socio-economic)
- Tribes
- Environmental Education professionals
- Marine management and monitoring/enforcement professionals
- Recreational users
- Fishing community (commercial and recreational)



### **Key Topics and Schedule:**

- Communication and Community Engagement
- Research and Exploration of the Monument
- Management Strategies and Approaches

### **Key Concerns:**

- Equitable participation and engagement in the planning process
- Integrating any guidance that would be helpful in developing the Management Plan

### **Next Steps:**

- Once the Project Team has compiled a list of possible participants, K&W will extend invitations, draft agendas for each focus group, and advance materials preparation and other planning.

### **Interview Process/Semi-structured script:**

**\*\*\*Please remember to hit record before the group starts chatting (Notetaker's role).**

**(A Note to Interviewers: this introduction is meant to be semi-structured, so please introduce yourself and don't feel you have to read this word for word. It is a guide only. Do, however, use the questions we developed as consistently as possible.)**

Thank you for agreeing to be part of this conversation about the Northeast Canyons and Seamounts National Marine Monument Management Plan. I appreciate your willingness to take part, and to offer constructive suggestions for the team to inform their planning process.

**For Everyone in every Focus Group: start with these questions first in every focus group and then find the topic area below for the focused questions on that topic**

***Opening framing: "we will start with a few framing, exploratory/visioning questions...to help understand what this Monument means to you. Then we will follow up with more questions specific to the Management Plan."***

When you think of this Monument, what comes to mind?

What do you think the role of a monument is?

Have you had experience with other types of monuments? This Monument is 130 miles offshore – how does that change what you expect or how your experience may change? How does that change management practices? Should people be able to access this place? How or within what bounds?

- Do you have experience with other monuments? How might this one be different given its 130 miles away? How does that impact the Management Plan?
  - Should people be able to access this place? How or within what bounds?

Where would you like to go to for information about the Monument and the Management Plan? (specific examples if possible)

- Social media
- Websites
- News/other media
- Refuges, aquariums (exhibits, displays, partnering on communication efforts, events)
- Other

### **Community Engagement and Communication:**

Where would you like to go to for information about the Monument and the Management Plan? (specific examples if possible)

- Social media
- Websites
- News/other media
- Refuges, aquariums (exhibits, displays, partnering on communication efforts, symposium and speaking events)

What resources exist that you would find useful to consult/integrate into our communication and community engagement strategy?

- For cultural and historic preservation, are there any best practices for gathering, storing, and archiving these materials?

What partnerships would be helpful in sharing information about the Monument?

- Partnering with: refuges, aquariums, schools, citizen science groups, influencers, industry, research centers, archives, environmental/conservation organizations, national ad council
- *Are some of these groups better positioned to support certain communications goals than others?*
- *Have you experienced any unexpected challenges or opportunities partnering with X group?*

What is the potential for community engagement and collaboration with citizen science groups, community and arts organizations, educational institutions, local governments, tribes?

- *Have you experienced any unexpected challenges or opportunities partnering with X group?*
- *What tools/strategies have you used to better enable meaningful partnerships with these groups?*

Are there other groups we've left out of this list that you think should be included in collaborative or community engagement activities?

What would community engagement look like or involve?

- Storytelling/oral history
- List of important species to tribes (sharing locations of importance?)
- Online library or hub for management activities/details important to the groups above

### **Exploration and Research:**

Exploration: the action of traveling in or through an unfamiliar area in order to learn about it.

Research: to study something in detail in order to learn more about it.

What should we be exploring in the Monument? (e.g.)

- Open ocean- how things move through the ocean system: Whales, migratory fish, wintering habitat for sea birds
- Geological Features -Canyons Seamounts(e.g.)
- Objects of historic interest- mammoths, ship wrecks, and cultural artifacts
- Threats (e.g.)
  - Marine debris
  - Climate change- ocean acidification, temperature rising
  - Invasive species – ballast water, pollution
  - Ghost fishing- any discarded, lost, or abandoned, fishing gear in the marine environment.
  - Boat traffic

What should we be monitoring in the Monument? (e.g.)

- Geological Features -Canyons Seamounts
- Open ocean- how things move through the ocean system: Whales, migratory fish, wintering habitat for sea birds
- Human uses
- Knowledge transfer – Monument Awareness
- Enforcement and compliance
- Approaches on mitigating bad behavior within the Monument: current allowable and non-allowable uses
- Apps for people to share their location/activity with the Monument?
- Potential Threats (e.g.):
  - Noise – approaches, best practices?
  - Light – approaches, best practices?
  - Recreational fishing impacts
  - Marine debris
  - Climate change- ocean acidification, temperature rising
  - Invasive species – ballast water, pollution

- Ghost fishing
- Boat traffic

What kind of partnerships would you like to see for research and exploration? (e.g.):

- Aquariums
- Schools
- Citizen science
- Research institutes
- Other Marine Protected areas
- Regional Ocean working groups and Alliances
- How would you like to learn about the Monument's research and exploration? (e.g.):
- Exhibits
- Digital communications
- Events
- Coordination

### **Stewardship Approaches:**

**Stewardship:** *noun:* the careful and responsible management of something entrusted to one's care

How would you like to see this place cared for?

- Leave open ended

How would you like to enjoy this place? (e.g.)

- Recreational fishing
  - *What should the Management Plan consider including to ensure accessibility of the Monument by recreational fishermen?*
- Sailing
  - *What should the Management Plan consider including to ensure accessibility of the Monument by recreational sailors?*
- Wildlife watching
- Education and outreach
- Existence value – Knowing that it is there and protected

How should we share about progress made in caring for this Monument?

How can the Monument support ocean literacy? (e.g.)

- Outreach and education events
- Exhibits
- Digital communications – website posts, social media, newsletters, media library, educational materials
- Events

Who should we partner with to care for this place?

- Other Marine Protected areas
- Citizen science groups
- Community working groups
- Friends group

How would you like to be involved in the Monument?

- Volunteer – digital content creation, data support, content creation
- Friends groups
- Education and outreach opportunities

What other thoughts or concerns would you like to share with us?

### **Building on Successful Management Practices:**

What are the best management practices you would suggest us take into account?

How do we use the available resources/best practices on managing a space like this?

- For cultural and historic preservation, are there any best practices for gathering, storing, and archiving these materials?
  - *Who do we need to bring in to make sure this type of preservation is done well? What partnerships are needed?*

Regulations that help shape management of vessels in the Monument? (Coast guard question)

- *Does anyone have knowledge of regulations used in other marine protected areas that have worked well? That have not?*
- *Which agencies/stakeholders need to be further engaged in shaping these regulations and ensuring enforcement?*

What models for ethical guidelines for using the Monument/like Leave No Trace would be helpful to use in the Monument?

How do we create access to the Monument to communities equally?

- What are practices for allowing people into the area without damage?

### **Superintendent Specific:**

- Welcome and Introductions

\*\* explain that we will be recording\*

*Primary Questions*

- What was your role during the Management Plan process for your Monument?
- How was the role of your Monument defined as per the Management Plan?
  - *May need to reign this question in if its getting into tangents.*

- What were the challenges during the drafting of your Management Plan?
  - i.e. challenges around inter-agency coordination, challenges around abiding by regulatory processes;
    - How did you resolve these issues?
    - What would you have done differently in the drafting of the plan?
- How did you incorporate an Environmental Assessment into your plan?
  - What elements of the Environmental Assessment made it into your plan?
  - Specifically, how did you determine the alternatives structure / decision points?
    - If you could do it again, would you have set up the alternative differently?
- **What role did enforcement have in your Management Plan?**
  - **What partnerships were formed to facilitate enforcement?**
- What partners did you engage in developing the plan?
  - Other agencies?
  - NGOs?
  - Friends Group/Advisory Committee?
    - How is this structured?
    - What was the process to build it?
    - How do they interact with the managers, etc.
- How do you plan to engage the public in on-going Management Plan processes/programs that come after the establishment of the Plan?
  - Where do you share information about your Monument?
  - What engagement methods have you found most effective?
  - How did you approach Tribal engagement?
- Is there anything else about your experience developing a Management Plan that you think would be helpful to share?

#### Secondary questions (time permitting)

- Was there specific rulemaking you needed to do regarding management? For instance...
  - rules around ships' sensors
- How often do you update your plan?
  - Why is that the case? How did you arrive at that decision?
- What were the **key components** of the initial plan for your Monument?
  - Permitting, enforcement, research priorities, etc?
  - What components did you build upon later on in the management process/once a management structure was set up?
  - How were these structured? Step down plans? Appendix?

\*ask Brittany for values question \*\*

### **Closing Questions for All Focus Groups: to end the conversation in each focus group**

Is there anyone you would recommend getting in touch with for additional approach, best practice, or management ideas? We welcome all ideas here!

Are there any partnerships you could see evolving to ensure that this place is cared for?  
How can NOAA and FWS develop these partnerships? What are they?

## Appendix B

### **Focus Group Invitees (105 people invited from 68 organizations)**

American Sports Fishing Association  
Anderson Cabot Center for Ocean Life  
Association to Preserve Cape Cod  
Black in Marine Science  
Channel Islands National Marine Sanctuary  
Commercial Fisheries Center of Rhode Island  
Commercial Fisheries Research Foundation  
Conservation Law Foundation  
Dark Sky International  
Deep Sea Explorers  
Fagatele Bay National Marine Sanctuary  
Florida Keys Sanctuary  
Friends of Plumas Wilderness  
Graves Light and Fog Station  
Gulf of the Farallones National Marine Sanctuary  
Harvard University  
Hawaiian Island Humpback Whale National Marine Sanctuary  
Housatonic Community College  
Hudson Canyon proposed Sanctuary  
Inland Ocean Coalition  
Jones River Watershed Association  
Maine Coastal National Wildlife Refuge  
Manomet



Mariana Trench Marine National Monument  
Marine Campaign Manager International Fund for Animal Welfare  
Maritime Aquarium at Norwalk  
Massachusetts Citizen Science Programs  
Massachusetts Institute of Technology Sea grant Citizen Science Programs  
Monterey Bay National Marine Sanctuary  
Mystic Aquarium  
National Marine Protected Areas Center  
National Museum of Natural History (Smithsonian)  
Natural Resources Defense Council  
Northeastern Regional Association of Coastal Ocean Observing Systems  
New England Aquarium  
New England Basking Shark Project  
National Oceanic and Atmospheric Administration  
National Oceanic and Atmospheric Administration Fisheries Office of Law Enforcement  
New York State Citizen Science projects  
Ocean Alert  
Ocean Data Network  
Oceana  
Office of National Marine Sanctuaries  
Olympic Coast National Marine Sanctuary  
Papahāumokuākea National Marine Monument  
Port of New Bedford  
Providence Parks Urban Wildlife Refuge Partnership  
Reef Check  
Refuge Law Enforcement  
Regional Historic Preservation Officer  
Rhode Island Saltwater Anglers Association  
River Museum

Rose Atoll National Marine Monument  
Salem State University  
Sea Going Green  
Stellwagen Bank National Marine Sanctuary  
The Nature Conservancy  
The Pew Charitable Trusts  
The Town Dock  
The University of Rhode Island  
University of Connecticut  
University of Massachusetts Boston  
University of New Hampshire  
Urban Ocean Lab  
United States Coast Guard  
United States Fish and Wildlife Service  
Woods Hole Oceanographic Institute  
Yale University