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The New England Offshore Environment and the Need for Ocean Planning



New England was born of the ocean. The region’s identity as well as its vitality is inextricably intertwined with the sea. As with its past, New England’s future is equally bound to the fate of the great waters that roll ceaselessly from the northern reaches of the Gulf of Maine to Long Island Sound and the New York Bight far to the south. Sound management of these public resources, and of the regional economy that depends on them, is of paramount importance. That is why federal, tribal, fishery management, and state entities—along with other caretakers of New England’s marine environment—have joined forces to develop this Northeast Ocean Plan (the Plan).

The Plan is a direct outgrowth of an Executive Order issued by President Barack Obama on July 19, 2010, titled “Stewardship of the Ocean, Our Coasts, and the Great Lakes.”¹ The order built on policy efforts in the previous decade and established an ambitious “national policy to ensure the protection, maintenance, and restoration of the health of ocean, coastal, and Great Lakes ecosystems and resources, enhance the sustainability of ocean and coastal economies, preserve our maritime heritage, support sustainable uses and access, provide for adaptive management to enhance our understanding of and capacity to respond to climate change and ocean acidification, and coordinate with our national security and foreign policy interests.” The President tasked federal agencies, through the formation of regional planning bodies, with the responsibility of developing regional ocean plans.

As this was a federal executive order, tribal and state participation was voluntary, but New England states and federally recognized tribes saw the value of this approach and thus have been equal partners in the development of this Plan. The Northeast Regional Planning Body (RPB), composed of representatives from the six New England states, six federally recognized tribes, nine federal agencies, and the New England Fishery Management Council, was formed in 2012. Over the past four years, the RPB combed through reams of data and reports, and solicited input from a wide range of stakeholders and experts each step of the way leading to the draft of this Plan.

The Plan advances three goals: healthy ocean and coastal ecosystems; effective decision-making; and compatibility among past, current, and future ocean uses. The Plan focuses on the ocean environment from the shoreline seaward (thus including waters in state and federal jurisdictions), while recognizing linkages with the ocean to the north, south, and east, as well



07/19/2010
Obama Executive Order
 National Ocean Policy

- Northeast Regional Planning Body (RPB)**
- Six New England states
 - Six federally recognized tribes
 - Nine federal agencies
 - New England Fishery Management Council
 - Two ex-officio members: New York and Canada

- Northeast Ocean Plan—Goals**
- 1** Healthy ocean and coastal ecosystems
 - 2** Effective decision-making
 - 3** Compatibility among past, current and future ocean uses

as with coastal communities. Although the Plan imposes no new regulatory requirements, it proposes the use of data, intergovernmental coordination between federal agencies, tribes, and states, and stakeholder engagement to guide and inform RPB agency activities toward meeting these three goals. And it is another step toward advancing a more comprehensive and ecosystem-based approach to managing human activities on the ocean. Reflecting the dynamic environment that it addresses, the Plan, too, will change over time, evolving to better handle emerging issues and incorporating new information.

New England has a long and proud history of innovation and leadership for the United States. The Northeast Ocean Plan itself is a trailblazing effort, being the first-in-the-nation regional ocean plan and serving as a guidepost for those plans that follow. It reflects New England's rich maritime history and resources—and the promise for an even brighter future.

A RICH AND COMPLEX OCEAN ECOSYSTEM

From the rocky outcroppings, sandy beaches, and the verdant salt marshes to ecologically diverse kelp forests and the canyons and deep basins far offshore, New England's waters abound with life. Thousands of animal and

plant species share this environment, ranging in size from the tiniest of plankton to the great whales. They all benefit immensely from the cold, nutrient-rich waters, strong tidal mixing, and enormous diversity of habitats, both above and below the waves, that make New England's ocean ecosystem one of the most spectacular and productive in the world.

The region's native plants and animals, and the habitats that sustain them, are spread out along the coast in a string of geographic areas, including Georges Bank, Jeffreys Ledge, Stellwagen Bank, Nantucket Shoals, Narragansett Bay, Long Island Sound, and the largest of them all, the semienclosed sea known as the Gulf of Maine. Although these names demarcate identifiable areas and physical features, they should not obscure the fact that all of New England's coastal waters, and the life they contain, are intricately intertwined and interdependent. Like a beautifully woven fabric, New England's coastal ecosystem is made up of individual threads, each of which contributes to the integrity of the whole.

There is yet another thread, or more accurately, a multitude of threads that are of equal importance—those representing human activity. Humans are neither above nor isolated from New England's coastal ecosystem, but rather

they are a critical part of it. In a myriad of ways, human actions affect the ocean environment, and changes in the ocean environment, in turn, greatly affect the quality of human life.

New England's ocean is a very dynamic ecosystem that has always required humans to be adaptable. However, there are an increasing number of warning signals about the future vitality of the ocean as a result of changes in climate and other factors. Rising levels of acidity in ocean waters threaten shellfish and other species, including commercially valuable ones. Historic losses of coastal wetlands will be exacerbated by rising sea levels with some salt marshes having no ability to migrate landward because of development patterns. Changes in fish populations as ocean temperatures rise are increasingly documented. These trends are all indications that large-scale shifts in this naturally dynamic system are already happening, in ways that we likely are only starting to sense.

Thus, the task of managing this complex ecosystem for the public good requires that an astonishing array of factors be considered to ensure that our actions balance the protection and sustainable use of the natural and the human environment.



8.8K
locations on the
National Register
of Historic Places

\$1.2B
commercial
fishing landings
revenue in 2012



300K
acres of marine and
estuarine wetlands

**New England's
Ocean
Ecosystem**



\$18.6B
GDP created by
tourism and recreation
in 2013



16
federally
endangered
species





PHOTO: ELIZABETH JAMES-PERRY

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The use of wampum for currency was introduced to the English colonists by Native people who also used wampum for record keeping and treaty making. The word wampum is derived from the Southeastern New England tribal word wampumpeake, for “white shell beads.” The colonists abbreviated it to “wampum” and used it to refer to both white and purple beads.

HUMAN SETTLEMENT AND OCEAN USE

For thousands of years prior to the arrival of the first Europeans, Native peoples utilized the environment to meet their needs, and in so doing they were also the first humans to benefit from the ocean’s bounty. They whaled, harvested fish and shellfish, and used the quahog shell for white and purple wampum adornment and diplomacy. Native people still depend on coastal waters for transportation, trade, recreation, and ceremonial purposes. In traditions built since time immemorial, New England’s many tribes developed an enduring and deeply spiritual relationship with the ocean, viewing it, along with the land they inhabited, as Mother Earth, an important source of sustenance that must be kept healthy so that it can continue to provide for the people.

When the English first came to New England, they were astonished by the productivity of the coastal waters. On his expedition to north-eastern North America in 1602, Englishman Bartholomew Gosnold was so impressed by the vast number of cod that his men caught within sight of a sweeping cape jutting far out into the ocean that he christened this promontory “Cape Cod.” A little more than 10 years later, Captain John Smith sailed from London to the New World and gave New England its name. Upon his return to England, Smith urged the adventurous to settle in New England to take advantage of its natural resources and build thriving communities.

From the start, the New England colonies relied heavily on the ocean for their survival. It was their lifeline, providing them with products to consume, barter, or sell, and linking them to the larger world beyond their shores. In the ensuing centuries, up through the present, first the colonies and then the states developed ever-stronger ties to the maritime world. As a result, New England’s coast and coastal waters were, and continue to be, critical ingredients in the region’s tremendous prosperity and growth, significantly enhancing the quality of life for those who live and work in the region—or only vacation here. Without the extraordinary boost that the ocean has provided, New England would be a very different place.



City of Providence, from Southern Suburbs.

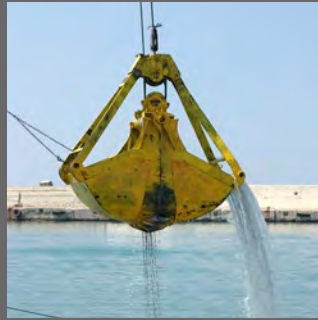
Today, New England's ports are hubs for trade and anchors for development. The region's stunning coastline is a magnet for commercial and residential construction, providing one of the most aesthetically pleasing natural canvases upon which to build. A vast array of businesses benefit from the ocean and from ocean-related activities, including shipping, energy, recreational and commercial fishing, aquaculture, and seafood processing, as well as restaurants, marinas, souvenir shops, and whale-watching companies. The ocean economy (defined as marine construction, living resources including fisheries and aquaculture, ship and boat building, marine transportation and related services, ocean tourism and recreation, and a small minerals sector) directly generated \$20.8 billion in GDP and directly supported more than 300,000 jobs in the Northeast in 2013.² The US military, in particular the Navy and the Coast Guard, rely on the ocean to carry out their missions and maintain national security. An untold number of people view the ocean as a major source of recreation, with activities ranging from relaxing on a beach, exploring coastal wetlands, and visiting cultural landmarks, to sailing, scuba diving, and fishing.

The ocean has been of central importance in shaping the region's character. Indeed, the personality of virtually every seaside city or town in New England is in large part a reflection of its connection to the maritime world. Vibrant communities made up of Native peoples, the commercial and recreational fishing industry, boat builders, and vacationers and "summer people" who flock to the coast contribute to the region's cultural richness, as well as its economic vigor. Tribal members continue as caretakers of the land and waters of the region, which they regard as their spiritual mother: if the land and waters are kept healthy, they will provide for future generations. Ask New Englanders what they love the most about the region, and being close to the coast will certainly rank high on their lists.



THE POWER OF OCEAN SCIENCE

New England boasts some of the world's leading ocean science institutions, research organizations, and academic programs, including Woods Hole Oceanographic Institute, the Marine Biological Laboratory, Massachusetts and Maine Maritime Academies, the New England Aquarium, the Gulf of Maine Research Institute, and top marine and oceanographic programs at the University of Massachusetts, the University of Connecticut, the University of Rhode Island, the University of New Hampshire, the University of Maine, Massachusetts Institute of Technology, and Boston University, to name a few. Additionally, federal and state agencies are engaged in many research projects, either by providing funding or undertaking research themselves.



People benefit from ocean resources in many ways, including jobs, food, energy, safety and security, recreational and wildlife-viewing opportunities, transportation, and cultural and spiritual enjoyment.

BALANCING PROTECTION AND USE

But our relationship with the ocean is not unidirectional, resulting only in benefits and amenities accruing to those who work on the ocean, or live in and visit the region. Human activities can benefit us while simultaneously straining the marine ecosystem. Changes in ocean conditions—driven by climate change or other factors—directly affect many human activities and can exacerbate stresses on species and their habitats.

New England's maritime environmental history offers a valuable lesson: it is much better to be proactive than to try to resolve problems after the fact. Both the environment and humanity benefit from such proactive behavior, not only in the form of a healthier ecosystem, but also as a result of economic savings. The Plan is based on this very simple, yet powerful, philosophy. By encouraging foresight and the improved coordination and planning such an approach necessitates, the Plan is designed to help the region with its management decisions, as the Northeast simultaneously explores new ocean uses, such as wind energy, and protects this rapidly changing environment.

Numerous laws administered by local, regional, state, tribal, and federal agencies have a critical role in balancing the use and protection of ocean resources. Most of these laws and agencies were established to address specific

topics or resource needs. At the federal and regional level, dozens of federal, tribal, and state agencies are involved in ocean management, including the Department of Agriculture, Department of Commerce which includes the National Oceanic and Atmospheric Administration, Department of Defense, Department of Energy, Department of Homeland Security, Department of the Interior (which includes the Bureau of Ocean Energy Management, National Park Service, US Fish and Wildlife Service, and US Geological Survey), Department of Transportation, the Environmental Protection Agency, and the New England Fishery Management Council. With responsibilities and authorities for managing the public resources of the ocean under a host of laws, these agencies regulate many human activities on or near the ocean. A number of state agencies also have responsibility for many of the same activities as a result of state laws that address state-level policy and management goals. Within states, municipal and county- or other regional-level agencies involved in planning or permitting add a critical local layer of engagement, oversight, and protection for coastal resources. And beyond regulations, there are numerous nonregulatory government initiatives aimed at conserving, restoring, understanding, and maintaining healthy ocean ecosystems (including habitat restoration, infrastructure enhancements, data collection, water quality

improvement programs, and invasive species assessments), providing for economic or recreational opportunities and advancing scientific understanding of the ocean.

All of these entities, laws, and nonregulatory efforts do not operate in isolation from one another. Owing to both practical necessity and legal requirements, many of the relevant actors are required to consult and coordinate with one another to consider how their responsibilities overlap and to be responsive to the public. The goal of such collaboration is to ensure actions and projects are implemented in a manner that not only satisfies legal requirements but, importantly, accounts for the needs and interests of stakeholders. Typically, through the environmental review process (with public input through the National Environmental Policy Act and state counterparts) and the issuance of a range of permits and leases, multiple agencies spell out the conditions under which a proposed project can be undertaken. Thus, these existing processes require agencies to continually coordinate with each other, a key aspect of this Plan.



The study area for data collection and stakeholder engagement for the Northeast Ocean Plan. It includes important ecological and political boundaries that influence ocean resources and activities in the Northeast. It also overlaps with the study area for the Mid-Atlantic RPB.

THE NORTHEAST OCEAN PLAN

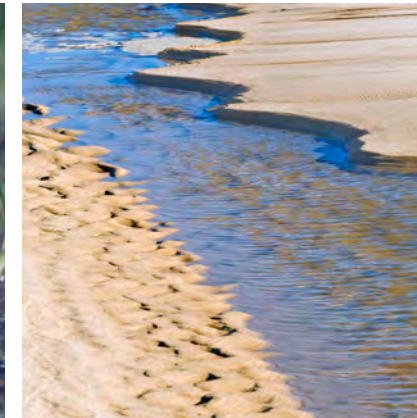
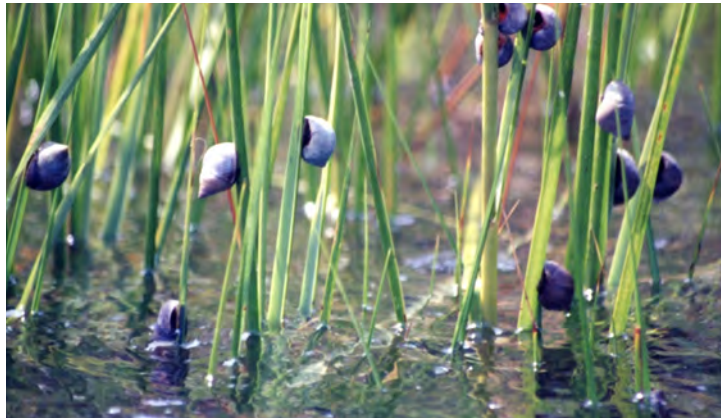
The Plan is a forward-looking document intended to strengthen intergovernmental coordination, planning, and policy implementation, while at the same time enhancing the public's ability to participate in the process of managing ocean resources. Its initiatives and actions aim to improve the process of data collection and dissemination, enhance stakeholder input and involvement, locate potential areas of conflict, identify additional information and science needs, and promote core goals that will protect and enhance New England's marine ecosystem.

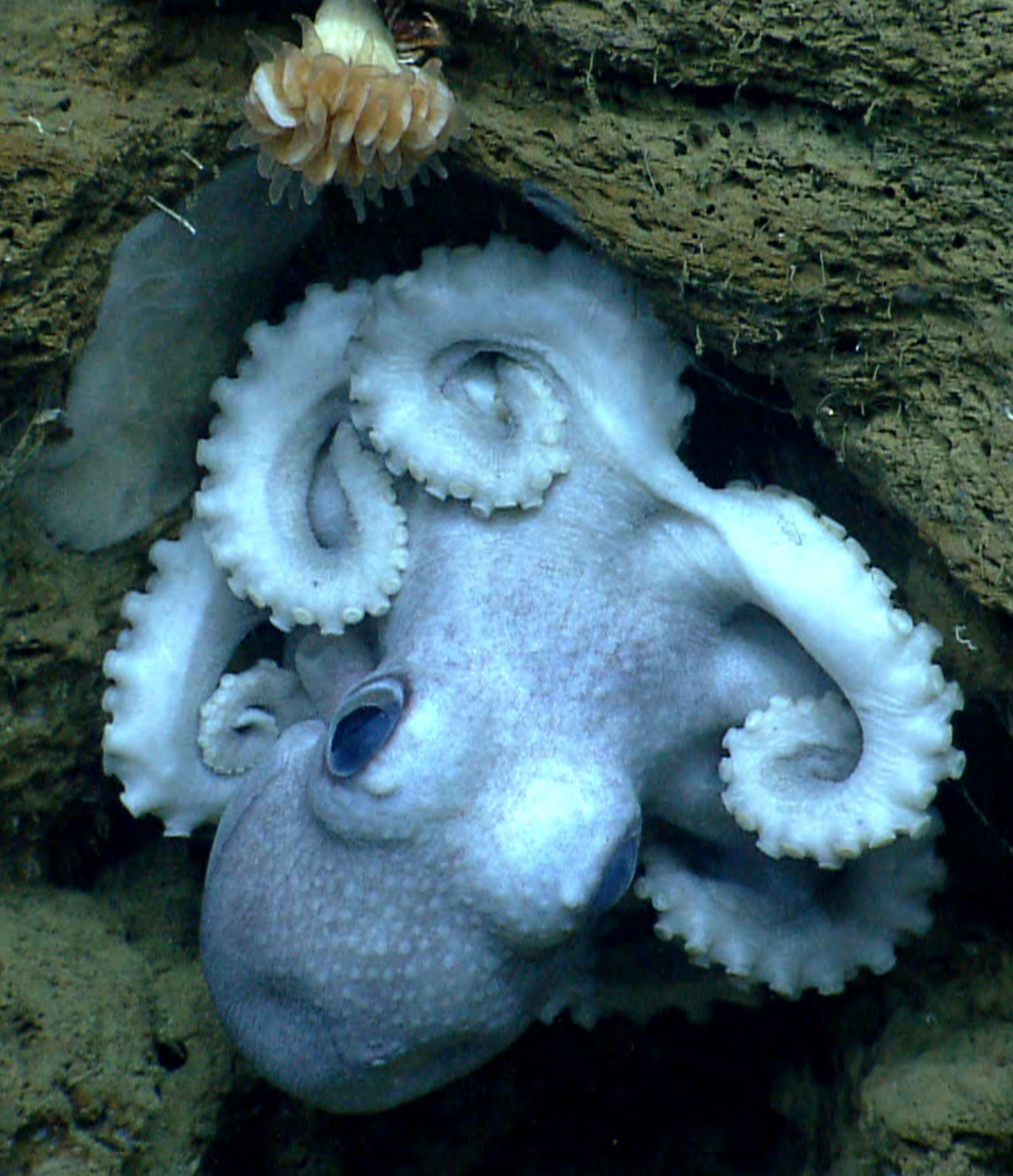
The Plan is a foundation, not a finished structure. It will continue to evolve as new information, needs, and trends emerge. The Plan lays out a strategy for monitoring and

analyzing trends in ecosystem health, and for periodically assessing and communicating progress toward achieving its three main goals. If such evaluations indicate a need for goals and objectives to be modified, or for new goals to be set, then the RPB will undertake efforts to do so, employing the same transparent and extensive methods that it originally used to create the Plan.

In the end, the Plan's emphasis on improved data, intergovernmental coordination, stakeholder engagement, and reevaluation will help achieve the goals of healthy oceans and coasts, more-effective decision-making, and compatibility among uses, and will only increase the odds that the ocean environment that results is the one we want.

NOTE: Chapter 1 was written by author Eric Jay Dolin.





Northeast RPB principles

- **Meaningful public participation.** Reflect the knowledge, perspectives, and needs of ocean stakeholders—fishermen; scientists; boaters; environmental groups; leaders in the shipping, ports, and energy industries; and all New Englanders whose lives are touched by the ocean.
- **Sound science.** Use accurate, up-to-date data and information, ranging from traditional knowledge to innovative mapping technologies.
- **A comprehensive, ecosystem-based approach.** Consider the “big picture” of ecological, economic, cultural, and other needs in our region.
- **Transparent, efficient government decision-making.** Reduce duplication and inefficiency in decision-making, and coordinate among agencies and governments based on a common vision, common information sources, and clear decision-making processes.
- **Adaptive management.** Update decisions as we learn more about patterns of ocean uses, and as environmental, social, and economic conditions change.