

Executive Summary

Massachusetts waters are rich with natural resources and busy with human activity. Our marine environment supports recreation and tourism, fishing and shellfishing, shipping and trade, and scientific research. The Commonwealth's marine waters also harbor infrastructure that supports the well-being and standard of living of Massachusetts citizens, such as offshore liquefied natural gas facilities, fiber optic and electrical cables, and natural gas pipelines. In addition, new activities in the marine environment are emerging, including deepwater aquaculture and wave, tidal, and wind energy.

Given this array of activity, and the need to protect and enhance the marine environment, the draft ocean plan addresses a fundamental issue: the ocean is a public trust resource, and the Commonwealth must effectively manage the protection and use of its waters on behalf of the public for the benefit of current and future generations.

To this end, the draft ocean plan:

- Sets forth the Commonwealth's goals, siting priorities and standards to ensure the effective stewardship of our ocean waters;
- Identifies and protects critical resources;
- Supports the development of sustainable uses, renewable energy, and necessary infrastructure;
- Establishes measures that minimize conflict between existing uses and new uses; and
- Provides a foundation for ongoing study and evolving management of the ocean environment.

The Oceans Act

On May 28, 2008, Governor Deval Patrick signed the Oceans Act of 2008. This groundbreaking legislation requires Secretary of Energy and Environmental Affairs (EEA) Ian Bowles to develop a comprehensive ocean management plan, with a draft plan by June 30, 2009, and a final plan promulgated by December 31, 2009. To assist in the planning process, the Act also required Secretary Bowles to appoint a 17-member Ocean Advisory Commission (OAC) and an Ocean Science Advisory Council (SAC).

The Oceans Act directs that the draft ocean plan address the following 15 specific requirements:

- (i) set forth the commonwealth's goals, siting priorities and standards for ensuring effective stewardship of its ocean waters held in trust for the benefit of the public;

and (ii) adhere to sound management practices, taking into account the existing natural, social, cultural, historic and economic characteristics of the planning areas; (iii) preserve and protect the public trust; (iv) reflect the importance of the waters of the commonwealth to its citizens who derive livelihoods and recreational benefits from fishing; (v) value biodiversity and ecosystem health; (vi) identify and protect special, sensitive or unique estuarine and marine life and habitats; (vii) address climate change and sea-level rise; (viii) respect the interdependence of ecosystems; (ix) coordinate uses that include international, federal, state and local jurisdictions; (x) foster sustainable uses that capitalize on economic opportunity without significant detriment to the ecology or natural beauty of the ocean; (xi) preserve and enhance public access; (xii) support the infrastructure necessary to sustain the economy and quality of life for the citizens of the commonwealth; (xiii) encourage public participation in decision-making; (xiv) adapt to evolving knowledge and understanding of the ocean environment; and (xv) identify appropriate locations and performance standards for activities, uses and facilities allowed under the Ocean Sanctuaries Act, including but not limited to renewable energy facilities, aquaculture, sand mining for beach nourishment, cables, pipelines.

In addition, the Oceans Act:

- Directs that the ocean plan be implemented through existing state review procedures, with all licenses, permits, and leases required to be consistent to the maximum extent practicable with the ocean plan;
- Requires that the ocean plan be revised and publicly reviewed at least every five years;
- Establishes commercial and recreational fishing as allowed uses subject to the jurisdiction of the Division of Marine Fisheries; and
- Allows appropriate-scaled renewable energy development.

Developing the Plan

EEA is developing this ocean plan in the context of an extensive public participation process that included 18 public meetings across the Commonwealth; 90 meetings with stakeholders such as pilots, fishermen, non-governmental organizations, and academia; and five public workshops—as well as OAC and SAC meetings held periodically throughout the planning period. Following the directives of the Oceans Act, EEA is using a three-phased approach to develop the plan:

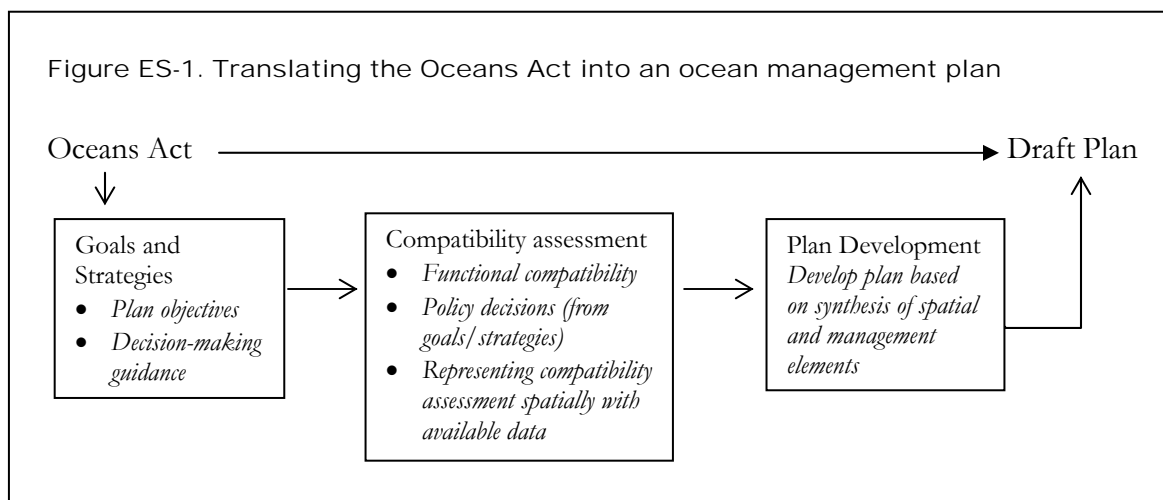
- Phase 1 - Information Gathering—Data gathering was an ongoing part of the ocean management plan, but a particular focus in the early months. At a series of statewide workshops and EEA presentations, OAC, SAC, and public participants reviewed

information gathered and data quality. Information was compiled in three main areas: 1) the goals of the plan and key issues and concerns; 2) general approaches to plan development; and 3) existing science and data regarding ocean resources and uses.

- Phase 2 - Draft Plan Development—In this phase, spatial analysis occurred and options for the management approach were refined, while public participation and expert input continued. This phase culminates with the release of the draft Massachusetts Ocean Management Plan on June 30, 2009.
- Phase 3 - Formal Public Review of Draft Plan—Copies of this draft have been made available as of June 30, 2009, and notice of its availability for public review has been provided in the Environmental Monitor. After the 60-day public comment period, work will continue on revisions, leading to final plan promulgation by December 31, 2009.

Planning Process

The basic purpose of the ocean management plan is to translate the policy direction and specific requirements of the Oceans Act into a management plan (see Figure ES-1 below). This process entailed: 1) evaluating the Oceans Act and developing plan goals and strategies based on its values; 2) using these strategies to help assess the compatibility and impacts of uses, activities, and facilities allowed under the Ocean Sanctuaries Act with existing uses and marine resources; 3) generating maps that illustrate impacts associated with uses of marine resources; 4) evaluating management options; and 5) developing an ocean plan to accomplish the goals described below that is responsive to the Oceans Act.



The draft ocean plan addresses four goals:

1. Balance and protect the natural, social, cultural, historic, and economic interests of the marine ecosystem through integrated management;
2. Recognize and protect biodiversity, ecosystem health, and the interdependence of ecosystems;
3. Support wise use of marine resources, including renewable energy, sustainable uses, and infrastructure; and
4. Incorporate new knowledge as the basis for management that adapts over time to address changing social, technological, and environmental conditions

Uses, activities, and facilities allowed by the Ocean Sanctuaries Act were analyzed to determine the degree to which they are incompatible with marine resources and other uses, activities, and facilities based on: 1) functional incompatibility (e.g., two uses that cannot physically occupy the same location); 2) the significance of potential impacts to natural resources that have special status under existing law and policy (e.g., a use that could have significant impacts to a Special Aquatic Site protected by the Clean Water Act); and 3) the significance of potential impact to values expressed in the Oceans Act (e.g., areas of high fishing effort and value).

The results of the compatibility assessment were then mapped using available data, and options for management of uses were considered. The management approach selected incorporates both spatial siting standards (where existing data allows) and performance-based measures. On a parallel track, options for identifying and protecting special, sensitive or unique marine and estuarine life and habitats (as required by the Oceans Act) were investigated. State agency staff convened to develop an ecological valuation index (EVI) to identify such areas by systematically evaluating the ecology of Massachusetts waters. To identify and safeguard these special, sensitive or unique areas, the management approach was to protect specific values and functions by limiting the impacts associated with specific uses.

Management of Ocean Uses and Resources

The ocean plan combines elements of both designated-area and performance standard-based management by establishing three categories of management area: Prohibited, Regional Energy, and Multi-Use. Under this approach, special, sensitive or unique natural resources and important existing water-dependent uses are provided enhanced protection in the siting, development, and operation of new uses, facilities, and activities. Renewable energy facilities are screened through strict compatibility criteria, and—for commercial-scale wind projects—facilities are allowed only in designated areas. The majority of state waters in the planning area remain open to uses, activities and facilities as allowed under the Ocean Sanctuaries Act,

which preserves opportunity for new and emerging uses and flexibility for future changes based on new data and technologies and social values that will change over time.

The draft ocean plan establishes three categories of management area and applies them to Massachusetts ocean waters.

Prohibited Area

The Prohibited Area is a specific area where most uses, activities and facilities are expressly prohibited by the Ocean Sanctuaries Act, as amended by the Oceans Act.

The Prohibited Area is coincident with the Cape Cod Ocean Sanctuary, within which a variety of uses, activities and facilities are expressly prohibited by the Ocean Sanctuaries Act, as amended by the Oceans Act, and are therefore prohibited under the ocean plan.

Renewable Energy Areas

Renewable Energy Areas are places specifically designated for commercial wind energy facilities, in recognition of the need to provide opportunity for renewable energy generation at a meaningful scale, but to do so with careful regard for potential environmental impacts. While other renewable energy technologies are allowed in these areas, it does not appear that commercial-scale opportunities for wave or tidal energy exist in the areas given currently available technology.

The draft ocean plan identifies two proposed designated Wind Energy Areas in the vicinity of the southern end of the Elizabeth Islands and southwest of Nomans Land. Adjacent to these areas, EEA has identified potentially suitable locations in federal waters for commercial-scale wind energy development. Comprising 2 percent of the planning area, this territory is capable of supporting 166 wind turbines of 3.6 megawatts each—roughly 600 megawatts total, or enough capacity to power up to 200,000 homes.

Multi-Use Area

The Multi-use Area is the remainder—and majority—of the ocean planning area, where uses, activities and facilities allowed by the Ocean Sanctuaries Act are managed based on siting and performance standards (associated with specific mapped resources and uses) that direct development away from high value resources and concentrations of existing water-dependent uses.

The majority of the planning area is designated as a Multi-use Area that is open to all uses, activities and facilities allowed under the Ocean Sanctuaries Act except commercial-scale wind energy facilities (11 or more turbines), including but not limited to the following: the extraction of sand and gravel for beach nourishment, aquaculture, cables and pipelines, pilot/community-scale wind energy facilities and wave and tidal energy facilities.

Management in the Multi-use Area is based on specific marine resources that were identified as key components of the marine ecosystem. Management in the Multi-use Area establishes a higher level of protection for special, sensitive or unique resources (SSU) in two ways. First, the ocean plan modifies the MEPA standard of “avoid, minimize or mitigate damage to the environment to the maximum extent feasible” to include a specific siting standard of “avoid, or demonstrate that there is no less damaging practicable alternative, or demonstrate that data does not accurately characterize the resource or use.” Second, the ocean plan prioritizes and maps those resources, providing clear baseline information which will allow proponents, agency staff, and the public to focus on aspects of a given project of greatest potential environmental significance. The draft plan specifies 63 percent of the planning area for protection of these critical marine resources.

For existing water-dependent uses, the Multi-use Area maintains the existing standard of “avoid, minimize or mitigate” but establishes a higher level of review by providing baseline information on concentrations of existing uses, identifying them as significant existing interests, and requiring that potential impacts and mitigation be addressed in MEPA review with the participation of potentially affected interests, as described in the Management Tools section of the plan.

Finally, the Multi-use Area addresses the interests of sustainable uses, renewable energy, and necessary infrastructure by directing them away from impacts to the most significant resources and human activities, but otherwise allowing flexibility in their location and level of regulatory review on a project-specific basis, based on their functional requirements, scale, and potential impacts to existing uses and marine resources. For example, a pipeline project would be required to use the ocean plan’s resource and use maps and identify a route for the project that does not impact whale, eelgrass, intertidal, and hard/complex habitat types; the project would be required to consult with EEA/DMF regarding the site specific fish resource areas associated with potential alternative routes. The project would have the option of demonstrating that it does avoid those resources even in otherwise mapped areas by providing an analysis of the ocean plan’s data, or supplementary data, that indicates that it does not impact the specified resource. If no feasible alternative exists, the project would be required to minimize impacts and provide mitigation for

unavoidable impacts. Similarly, the project would be required under MEPA to evaluate the impacts of alternative routes to areas of high commercial and recreational fishing through characterization of, and consultation with, potentially affected interests within those mapped areas. The project would be required to identify the potential economic impacts of the activity to commercial and recreational fishing as the basis for reviewing alternative routes and compensatory mitigation. Comments from agencies, potentially affected parties, and the public would assist the Secretary in developing an appropriate level of characterization.

Plan Implementation and Evolution

EEA will continue its leadership role through the implementation of the Massachusetts Ocean Management Plan. The communications and stakeholder processes will continue through plan implementation and evolution. Continued collaboration with the Massachusetts Ocean Partnership will be also pursued. Adapting to evolving knowledge and understanding of the ocean environment will be essential for successful plan implementation. The Science Framework of the Massachusetts Ocean Management Plan provides the blueprint for such adaptive management. It illustrates important information needs and describes the key actions that have been identified to provide the scientific basis for ocean management in the future: ecosystem monitoring, characterization, mapping, and classification; characterizing and mapping human uses and activities; ecosystem models and decision-support tools; applied scientific research; and an integrated data management and communication network.