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OCEAN MANAGEMENT PLANNING DCPC: PROGRESS SUMMARY

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This document is intended to provide the Policy Committee established under the Cape Cod Ocean Planning District of Critical Planning Concern (DCPC) with the information and analysis completed to date and draft sections of the Cape Cod Ocean Management Plan (CCOMP). At this stage of the planning process, the Cape Cod Commission is asking the Policy Committee to provide guidance and direction on a number of policy options based on the information collected to date.

As the CCOMP is still a work in progress, the sections are either partially completed, or in some cases yet to be drafted. The policies that will be implemented through the DCPC process and the CCOMP are still evolving. Before recommending adoption of regulations, standards or determination of appropriate scale applicable to the CCOMP planning area (District), the Commission is seeking comments and feedback from the Policy Committee on a number of possible policy directions.

The Progress Summary provides a brief review of the DCPC process and guidelines, describes the contents of the draft sections of the CCOMP, and includes an abbreviated set of policy options for the Policy Committee's consideration.

Introduction

On December 31, 2009, the Commonwealth of Massachusetts promulgated the Ocean Management Plan (OMP). The OMP sets forth uses and activities allowed within the state's jurisdictional waters, and establishes performance standards for siting and permitting those uses. The OMP also charges the state's regional planning agencies with determining the appropriate scale of renewable energy projects in their jurisdictions, and with reviewing wind turbines proposed within the OMP planning area as developments of regional impact.

State Management Framework Summarized

The OMP establishes three broad management areas within the state planning area; the Prohibited Area, Renewable Energy Areas, and the Multi-Purpose Area.

- The Prohibited Area is coincident with the Cape Cod Ocean Sanctuary, and activities that may be permitted elsewhere are expressly prohibited in this area, consistent with the Ocean Sanctuaries Act and the Oceans Act of 2008.
- The OMP establishes two commercial Wind Energy areas and three Provisional Areas within the state's planning area. Only a small portion of one of the



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Provisional Areas is located within the Cape Cod District. The Renewable Energy Areas are designated based on the screening conducted through the OMP planning process and are considered to have few significant environmental constraints. The Provisional Areas similarly passed the screening process, but have other constraints that may preclude renewable energy development in the near future (readiness of available technology).

- The Multi-Purpose Area constitutes the vast majority of both the state planning area and the Cape Cod District. Renewable energy development, sand and gravel mining, cable and pipeline installations, as well as other allowed activities as defined in the Ocean Sanctuaries Act, may be located within the Multi-Purpose Area based on siting and performance standards.

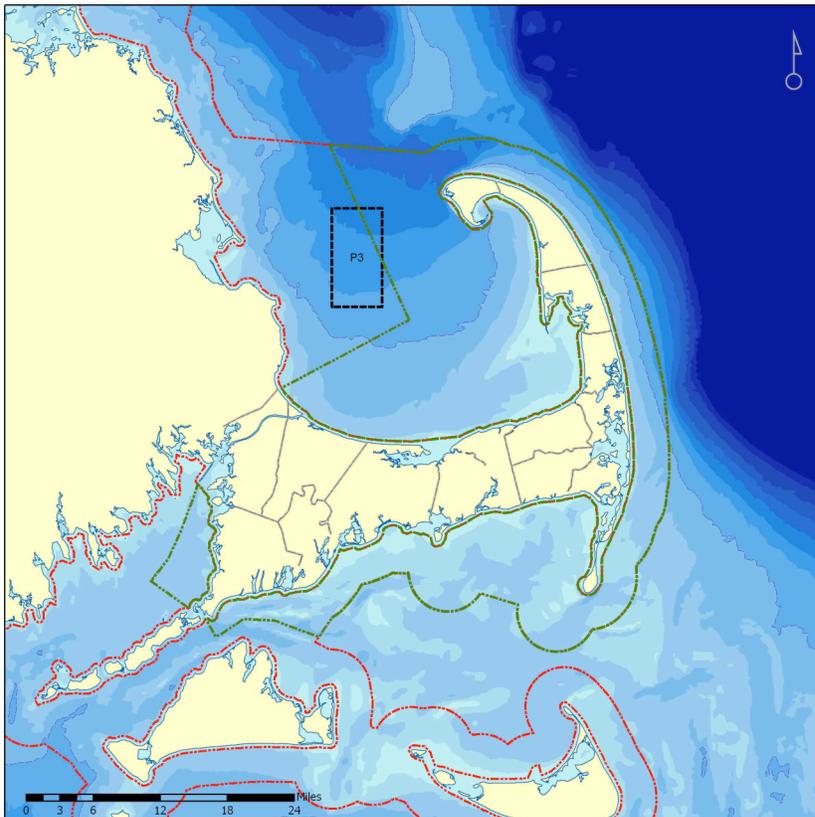
In addition, the OMP designates special, sensitive, or unique species and habitats (SSUs) located within the planning area, comprising core habitat areas for key species. All of these resources are found in whole or part in the District.

Barnstable County DCPC Planning Framework

On December 16, 2009, the Barnstable County Commissioners nominated the OMP planning area of Cape Cod for designation as a DCPC. The DCPC tool provides a one-year planning period to examine opportunities and constraints within a designated District, and to implement regulations that are consistent with the goals of the District.

The offshore ocean environment of Cape Cod, or Barnstable County, comprises the District (see Map 1). The boundary of the District starts 0.3 nautical miles seaward of mean high water (MHW), and extends to 3 nautical miles from MHW, or the state jurisdictional boundary, whichever is farther from the shore.

Map 1: Ocean DCPC planning area (District) – boundary in green



The Cape Cod Ocean Management Plan is intended to provide policy guidance and technical support for regional level discussions concerning appropriate scale and renewable energy review standards within the District. The DCPC designation document (the “ordinance”) defines the purposes of the District, and establishes guidelines on which the planning process should focus.

(From Ordinance 10-03: Ocean Management Planning DCPC)

SECTION 6.4 Guidelines

Based on the concerns and opportunities articulated in the resource sections above, and consistent with the goals and interests, the Commission adopts the following guidelines to serve as the basis for implementing regulations to be forwarded on behalf of the towns and County to the Assembly of Delegates to manage development within the Ocean Management Planning District.

6.4.1 *Implementing regulations should allow for the continuing use of ocean resources for renewable energy generation and other activities which support the regional economy, so long as those uses are consistent with the other goals and purposes of this DCPC.*

6.4.2 *Development of thresholds should be considered and established as appropriate for the regional regulatory review of renewable energy projects. Factors to consider should include but are not limited to height, energy generation, or number of individual turbine supports within a project.*

6.4.3 *Implementing regulations should be developed which determine appropriate scale for renewable energy projects. Factors to consider in defining appropriate scale include, but are not limited to the factors identified in the Ocean Management Plan; 1) protection of the public trust, 2) public safety, 3) compatibility with existing uses, 4) proximity to the shoreline, 5) environmental protection, 6) community benefit, and 7) appropriateness of technology and scale.*

6.4.4 *Prior to submission of implementing regulations to the Commission the following issues should be considered:*

- a. the protection of SSU’s (special, sensitive, unique resources), commercially and recreationally important fishery resources, and general ecosystem health over the long term;*
- b. the impacts of seafloor disturbances from development resulting in storm, wave or tidal impacts to the shore, or which result in changes in sediment transport, or which impact significant benthic habitat;*
- c. water quality protection from wastewater discharges from allowed uses in the district;*
- d. offshore dumping, or use of the seafloor for burial of waste;*

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- e. the protection of habitat provided above the water surface, specifically for waterfowl, shorebirds, bats, and other avian wildlife that utilize the air for fishing/hunting, mating, and migration, from potential development within the district;*
- f. the protection of historic districts and historic resources whose setting and historic integrity would be impacted by above-water structures within the Ocean DCPC;*
- g. viewsheds from significant cultural landscapes, wild or natural areas, including federal and state owned parks and wildlife refuges, and traditional cultural properties that would be impacted by above-water structures within the Ocean DCPC;*
- h. the protection of underwater archaeological resources from ground-disturbing activities;*
- i. possible use conflicts between allowed uses that may pose hazards;*
- j. potential cumulative impacts of renewable energy on resources;*
- k. co-location of technologies or multiple uses of sites; and*
- l. decommissioning of renewable energy structures.*

To guide the CCOMP process, the Cape Cod Commission assembled a Policy Committee that consisted of elected officials representing each of the region's 15 towns (plus four ex officio members). In addition, the Commission created Technical Workgroups with expertise in natural resources, visual assessment and renewable energy to explore specific topics relevant to the CCOMP. A stakeholders group was also invited to participate and comment on the work of the Policy Committee and Technical Workgroups throughout the planning process.

CCOMP Structure

The CCOMP aims to examine the potential for a limited, defined set of activities within the District, and where possible, facilitate appropriately scaled renewable energy development while ensuring that the unique resources that characterize Cape Cod are adequately protected.¹

Section 1 of the CCOMP (Overview and Context) provides greater detail on the Cape Cod District and its relationship to the state's OMP, and includes a detailed description of the affected environment, priority resources and activities found within the District, a summary of which is provided below.

The District contains extensive and diverse natural resources of ecological, wildlife and scientific value of local, regional, statewide, and, in some cases, national significance. Marine plants, finfish, shellfish, marine mammals, and seabirds occupy different areas in varying concentrations within the District. The District includes critical habitat in Cape Cod Bay for federally endangered whales (Northern Right Whale, Fin Whale, Humpback

¹ The Cape Cod Commission Act establishes that the purpose of the Commission is to further "the conservation and preservation of natural undeveloped areas, wildlife, flora and habitats for endangered species; the preservation of coastal resources including aquaculture; the protection of groundwater, surface water and ocean water quality, as well as the other natural resources of Cape Cod; balanced economic growth... and the preservation of historical, cultural, archaeological, architectural, and recreational values."

Whale) and sea turtles. Habitats within the District also support endangered seabirds such as the Roseate Tern, large, seasonal concentrations of sea ducks, and important finfish and shellfish populations (lobster, sea scallop, horseshoe crab, etc.). Extensive beds of eelgrass, an important subtidal habitat for a variety of marine organisms, and other ecologically important benthic environments (e.g., hard/complex bottom) occur within the District.

The state's OMP does not specifically identify visual resources in its mapping, although some cultural resources are identified such as locations listed on the National or State Register of Historic Places and potential archaeologically sensitive sites. The CCOMP addresses the "culturally significant environment" and visual resources of the Cape through a seascape assessment and a Visual Impact Assessment (VIA) that identifies those aspects, qualities, or specific locations on Cape Cod that are visually sensitive and could be adversely impacted by development.

Section 2 of the CCOMP (Offshore Renewable Energy) provides an analysis of the many factors specific to the economics of off-shore wind and the unique characteristics of associated impacts from wind turbines, including capital costs, transmission, net metering, spatial configurations, noise and flicker, hazardous materials, seabed geology, water depth, and need as defined by the region's current and projected demand for electricity. This section also includes a general framework of economic considerations for off-shore wind energy facilities and an overview of potential resource impacts.

Section 3 of the CCOMP (Sand Mining and Cable and Pipeline Installations) provides an overview of the potential environmental effects of both types of activities and will include an analysis and policy options at a future date. The potential resource impacts of laying cable within or on seafloor habitats are discussed in Section 2.

Section 4 of the CCOMP (Visual Considerations) provides background on the methodology developed for assessing the visual impact of activities in the District. It includes an overview of the factors affecting visibility, and a method for determining the sensitivity and evaluating the visual effect of development in the District.

Section 5 of the CCOMP will provide management options for the District; this section has yet to be completed.

Policy Options & Minimum Recommendations

The Policy Committee should discuss and provide guidance on each of the policy approaches described below. Based on information provided in the plan, as well as concerns or interests expressed by stakeholders and others, the Commission asks the Policy Committee to provide direction on:

- 1) options for each of the **factors contributing to the determination of appropriate scale,**
- 2) minimum recommended **protections for environmental resources** (also factors in the determination of appropriate scale), and

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3) additional policy questions related to **allocation of turbines**, and **local review**.

These policy options are listed here and repeated in Section 2 together with relevant background information. Each of the factors determining appropriate scale were identified in the DCPC guidelines.

1) Factors Contributing to Determination of Appropriate Scale (see Section 2D.4)

Public Trust

- Address protection of public trust through ocean zoning and review criteria that prohibit specific types of projects in certain resource areas.
- Require consistency with a regional review performance standard demonstrating that public trust impacts are avoided or minimized to the extent feasible.
- Leave this test to the state review process through MEPA and state agency permitting.

Public Safety

- Ensure public safety through review criteria that establishes a buffer for certain types, or scales of development in certain resource/use areas.
- Require conformance to regional review performance standards for regular operation, maintenance and decommissioning (or other form of surety).
- Require conformance to regional review performance standards for operational controls during inclement weather events (such as coastal storms or fog).
- Prohibit certain types or scale of development at a certain distance from shore.

Compatibility with Existing Uses

- Prohibit any wind energy development project in mapped high-use activity areas (there are four small potential areas that are not mapped as either SSUs or high activity/use areas, see Map 13).
- Regulate wind energy development with performance standards that consider area of impact and cumulative impacts.
- Don't regulate wind energy development's compatibility with existing uses (which assumes that the allowed number of turbines, 24, is too small to have a significant impact on existing uses).

Community Benefit

To address Cape Cod interests, community benefit may be considered using several criteria:

1. Lower electricity costs
2. Direct job creation

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3. Local ownership
4. Energy import substitution
5. Others?

- Do all municipal projects have a community benefit? Should they demonstrate consistency with all or some of the community benefit criteria (above)?
- Do all public customer cooperative projects have a community benefit? Should they demonstrate consistency with all or some of the community benefit criteria (above)?
- Should public/private projects demonstrate a community benefit? Should they demonstrate consistency with all or some of the community benefit criteria (above)?
- Should private projects demonstrate a community benefit? Should they demonstrate consistency with all or some of the community benefit criteria (above)?
- Other?

Proximity to Shoreline

- Establish a prohibited area extending a certain distance from shore (similar to the state's OMP rule for Commercial-Scale projects), and require Visual Impact Assessment (VIA) and environmental impact analysis for any community-scale wind projects beyond this distance.
- Establish a prohibited area that varies depending on the sensitivity of the adjacent seascape units, and require Visual Impact Assessment (VIA) and environmental impact analysis for any community-scale wind projects beyond this distance.
- Review each project proposal individually to determine whether the distance from shore is acceptable based on an evaluation of specific resource impacts (visual, environmental and other) and project characteristics (height, number and configuration of turbines).
- Establish some distance from shore, or identify specific locations, where projects are presumed to have no significant impacts based on a prior analysis of visual and environmental resources. Do not require further review in these areas.

Appropriateness of the Technology and Scale

Technology:

- Focus on crafting regulations and standards that address wind energy development. Additional technologies may be addressed in future iterations of this plan, when wave and tidal (and other renewable technologies) may become viable.
- Develop a regulatory framework that addresses all technology types.

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Scale:

- Establish the appropriateness of the scale on a case-by-case basis by reviewing all projects, regardless of location, height, number of turbines, or megawatts (MW) generated.
- Presume that a project is of an appropriate scale if it is located in one of a few sites with very few constraints, as mapped by the state's OMP (see Map 13). Projects located in these sites would be eligible for a limited or streamlined regional review.

2) *Environmental Protection (Minimum Recommendations – see Section 2D.4)*

Marine Mammals:

- Prohibit development in core Northern Right Whale habitat and important Fin Whale and Humpback Whale habitat.
- Establish Time of Year (TOY) restrictions for construction in Right Whale (Feb to May), Fin Whale and Humpback Whale (April to December) habitat.
- Impose speed restrictions on construction and maintenance vessels in known whale habitat.
- Adopt all SSUs, except eelgrass and hard/complex bottom, as prohibited areas.
- Adopt mitigation techniques to limit impacts of construction noise to marine life (pingers, etc.).

Birds, bats:

- Avoid siting turbines in waters less than 20 meters in depth.
- Avoid siting turbines in important sea duck feeding, resting, or staging areas, and in known flight pathways between resting and feeding areas.
- Restrict operation of turbines during significant migratory periods, and during fog and storms.

Sea turtles:

- Establish TOY restrictions in sea turtle habitat (May-November?) to avoid construction and vessel impacts.
- Avoid construction in known or preferred sea turtle feeding habitats.
- Impose speed restrictions on construction and maintenance vessels in known sea turtle habitat.

Fisheries:

- Establish TOY restrictions for construction in known spawning habitat of important commercial species and declining/rare species (presumption of significance can be overcome by site assessment data).
- Avoid areas of high commercial fisheries activity.

Benthic Habitat:

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- Avoid hard/complex bottom (presumption may be overcome by site assessment data).
- Avoid eelgrass habitat (presumption may be overcome by site assessment data).
- Minimize turbidity during construction (cable laying, etc.) through best construction practices.

3) Additional Policy Considerations (see 2D.5)

Allocation

- First come, first served: A town, Barnstable County, or a private entity may propose to build a facility that consumes all or a large portion of the 24-turbine cap set by the state.
- Allocate 1-2 turbines to each town.
- Allocate clusters of turbines sub-regionally, or between Cape Cod Bay and Nantucket Sound.
- Allocate all the turbines to one location. This would likely require that Barnstable County or a private entity to be the developer.

Local Participation in Project Review

- All towns through a Board of Selectmen vote?
 - Only towns affected by the proposed project?
 - Define “affected town” with regard to off-shore wind energy development:
 - All towns located within the Zone of Visual Influence (see Section 4).
 - Only the town where project is located plus the adjacent communities.

The Policy Committee will need to discuss and provide guidance on each of the policy approaches presented in this Section. Based on information provided in the plan, as well as concerns or interests expressed by Stakeholders and others, the Policy Committee should vote on policy direction for each of the factors contributing to the determination of appropriate scale. Workshops to present and discuss the issues will be scheduled in January or February, 2011.