

Draft Ocean Management Plan

Massachusetts Ocean Partnership
July 29, 2009

15 requirements of the Act

GOALS

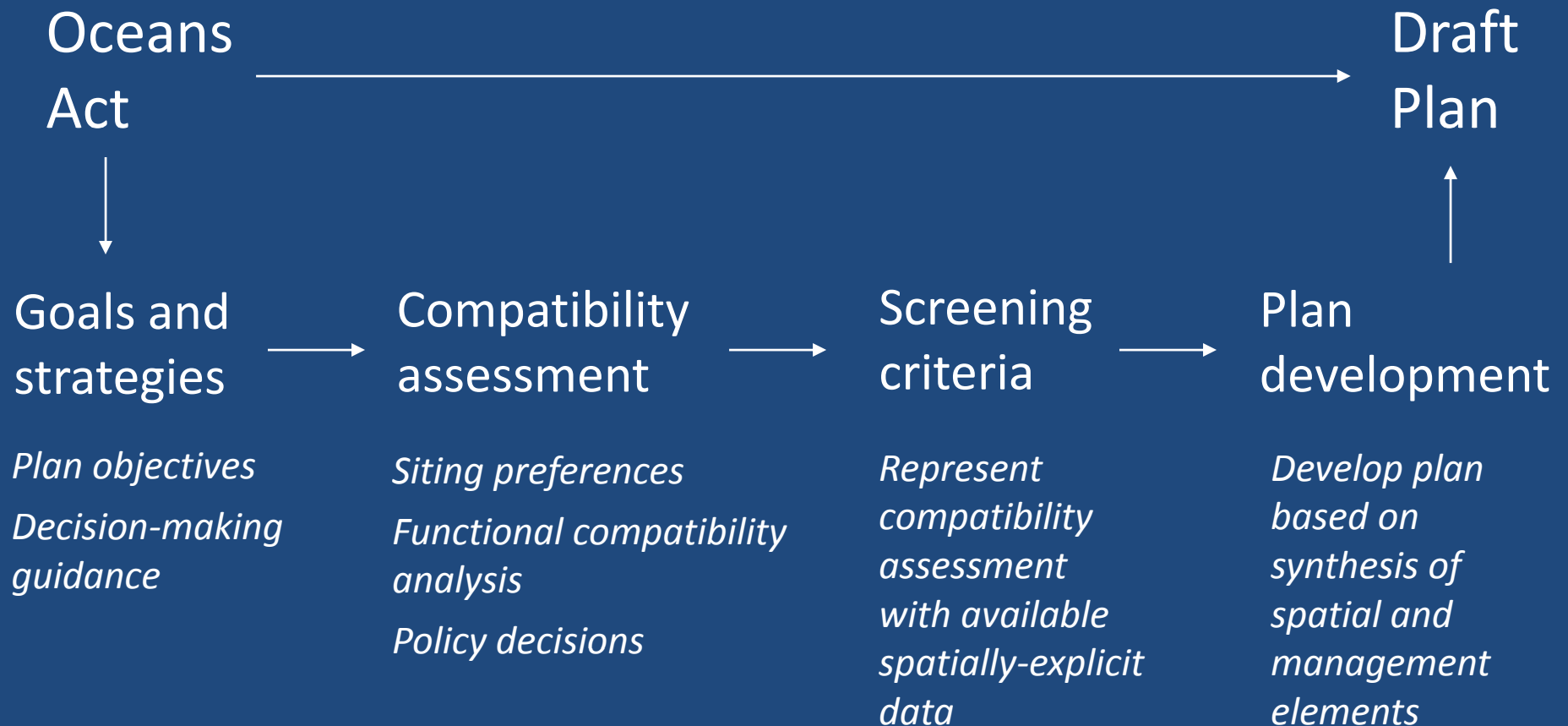
- Balance and protect the natural, social, cultural, historic, and economic interests of the marine ecosystem
- Recognize and protect biodiversity, ecosystem health, and the interdependence of ecosystems
- Support wise use of marine resources, including renewable energy, sustainable uses, and infrastructure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

STRATEGIES

OUTCOMES

- Integrated ocean management plan
- Special, sensitive, unique resources identified and protected
- Areas for renewables and other uses identified with performance standards
- Blueprint for Plan 2.0: science, stakeholder, policy/management adaptive frameworks

Translating the Oceans Act into an ocean plan through spatial data

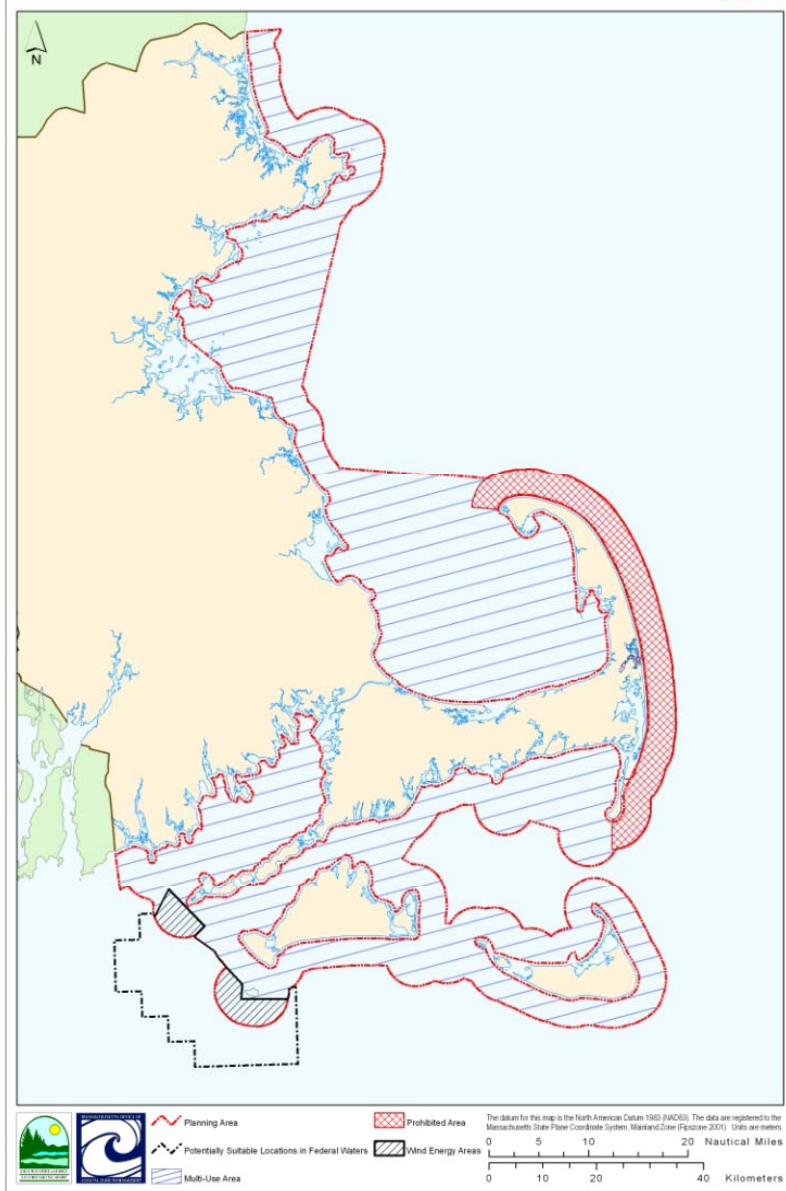


Connecting statutory mandate through goals, strategies to spatial information

Oceans Act requirement	Goal	Strategy	Data
Reflect the importance of the waters of the Commonwealth to its citizens who derive livelihoods and recreational benefits from fishing	Effective stewardship: Support wise use of marine resources, including renewable energy, sustainable uses, and infrastructure	Minimize conflicts with fishing by siting new development areas outside areas of: <ul style="list-style-type: none">• Significant commercial fishing effort and value• Concentrated recreational fishing activity	<ul style="list-style-type: none">• Commercial fishing: DMF catch reports, SAFIS data, NMFS vessel trip reports• Recreational fishing: DMF survey MMTA survey

FIGURE 4-1 MANAGEMENT AREAS

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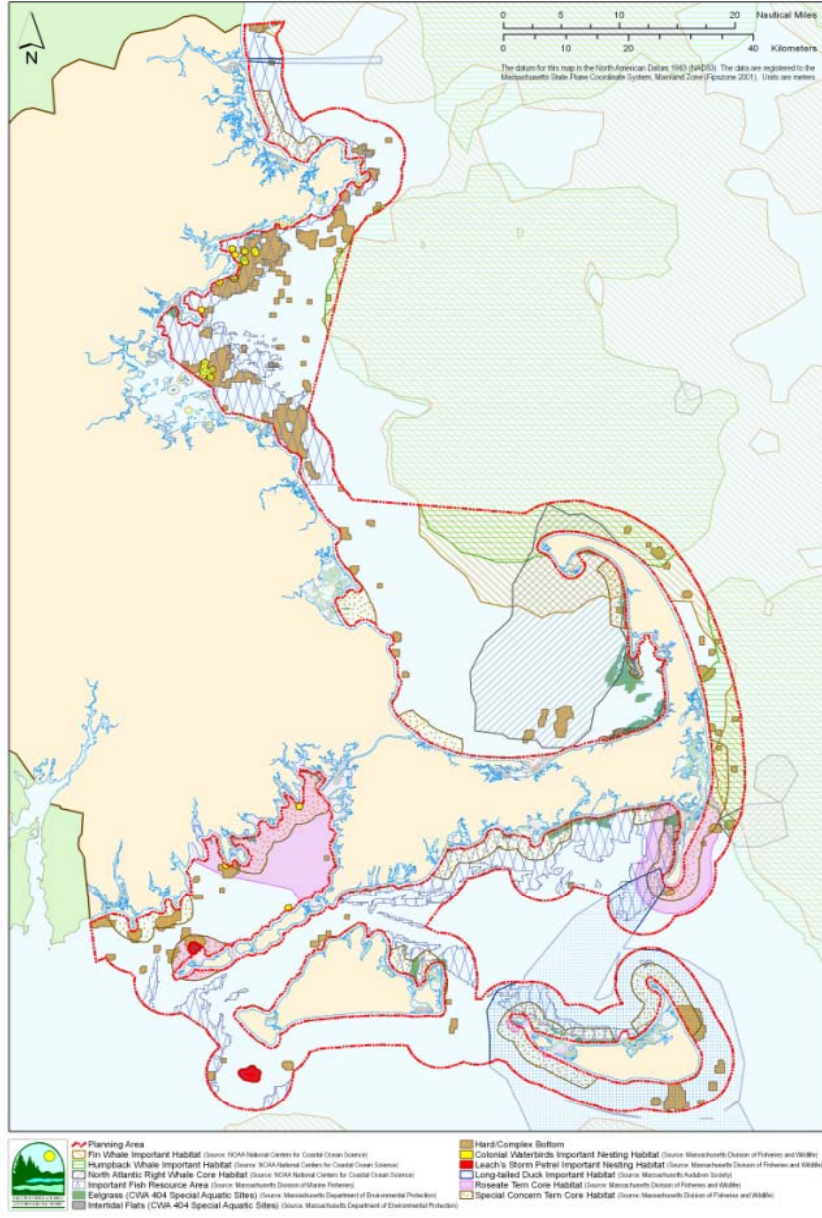


Ocean Plan Management Areas:

- Prohibited-13%
- Renewable Energy-2%
- Multi-use-85%

SPECIAL, SENSITIVE, OR UNIQUE MARINE AND ESTUARINE LIFE AND HABITATS

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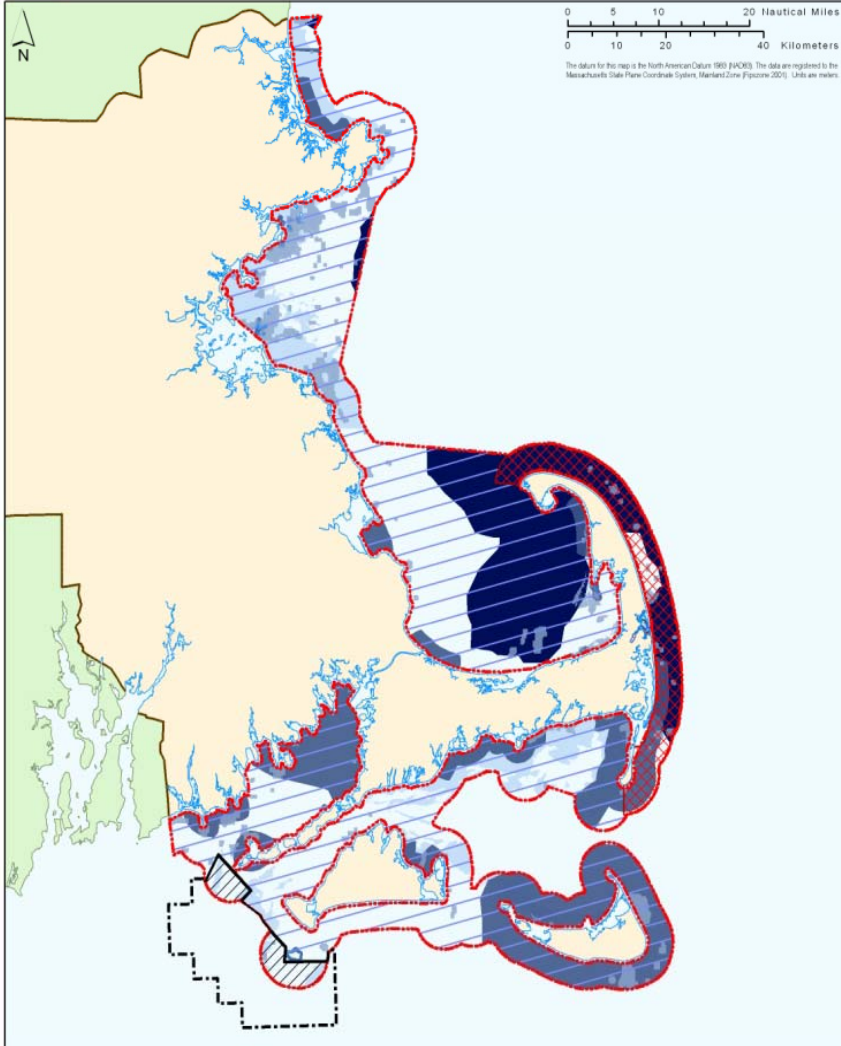


Special, Sensitive or Unique Resources

New regulatory siting standard under MEPA



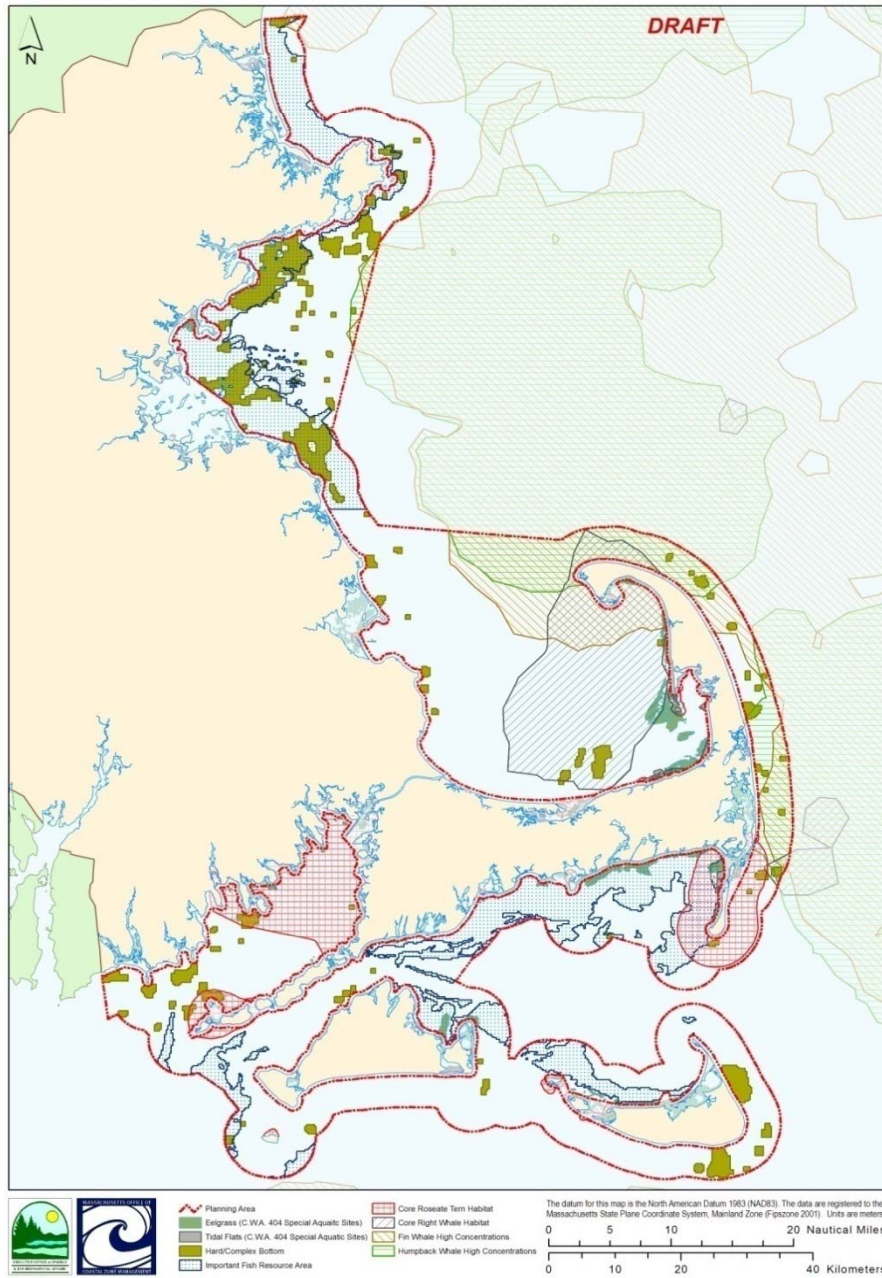
DRAFT MASSACHUSETTS OCEAN PLAN MANAGEMENT AREAS



- | | | |
|--|-------------------|--|
| Planning Area | Multi-Use Area | Special, Sensitive, or Unique Marine and Estuarine Life and Habitats |
| Potentially Suitable Locations for Commercial Wind in Federal Waters | Prohibited Area | Whales |
| | Wind Energy Areas | Bottom Features |
| | | Birds |
| | | Fish, Crustaceans, and Shellfish |

Composite Management

FIGURE 4-X MANAGEMENT PLAN: SAND AND GRAVEL RESOURCES



Management of
sand mining for
beach
nourishment

Management of cables

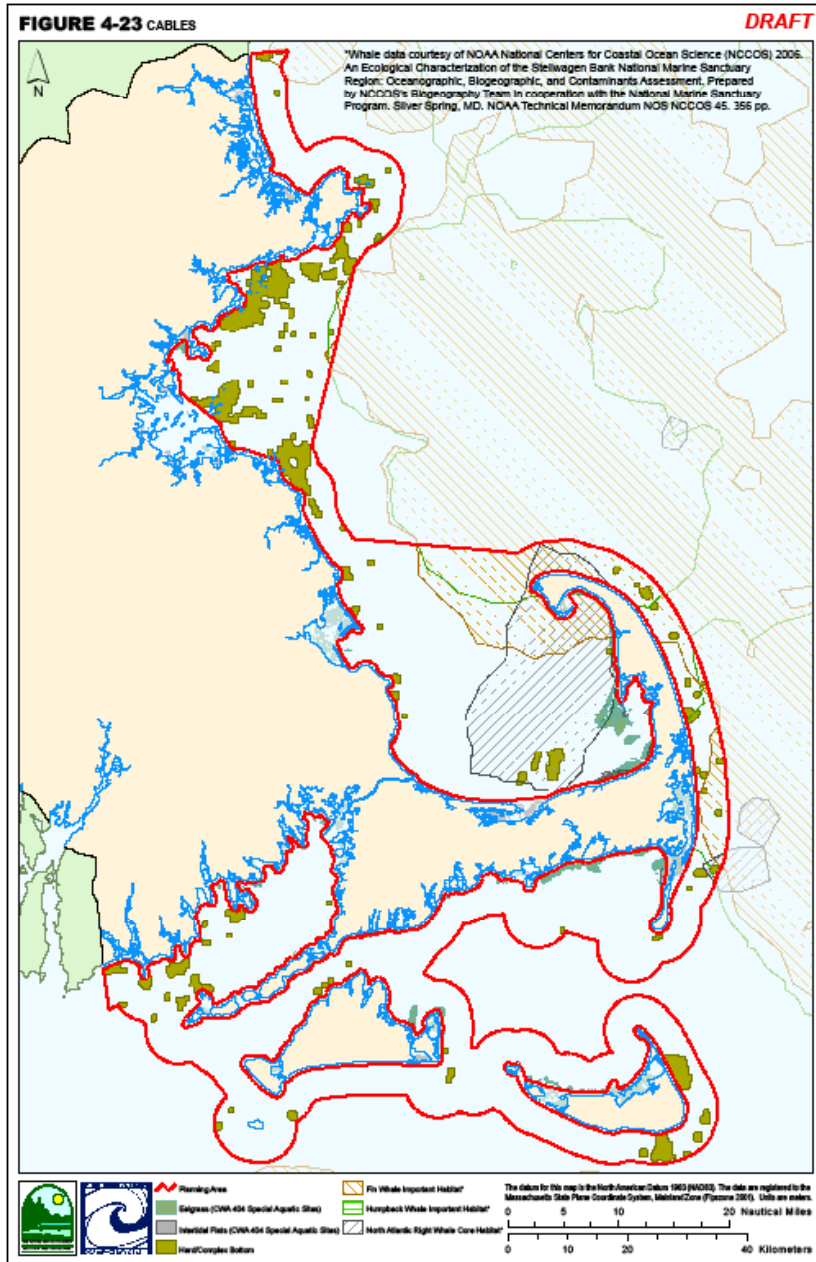
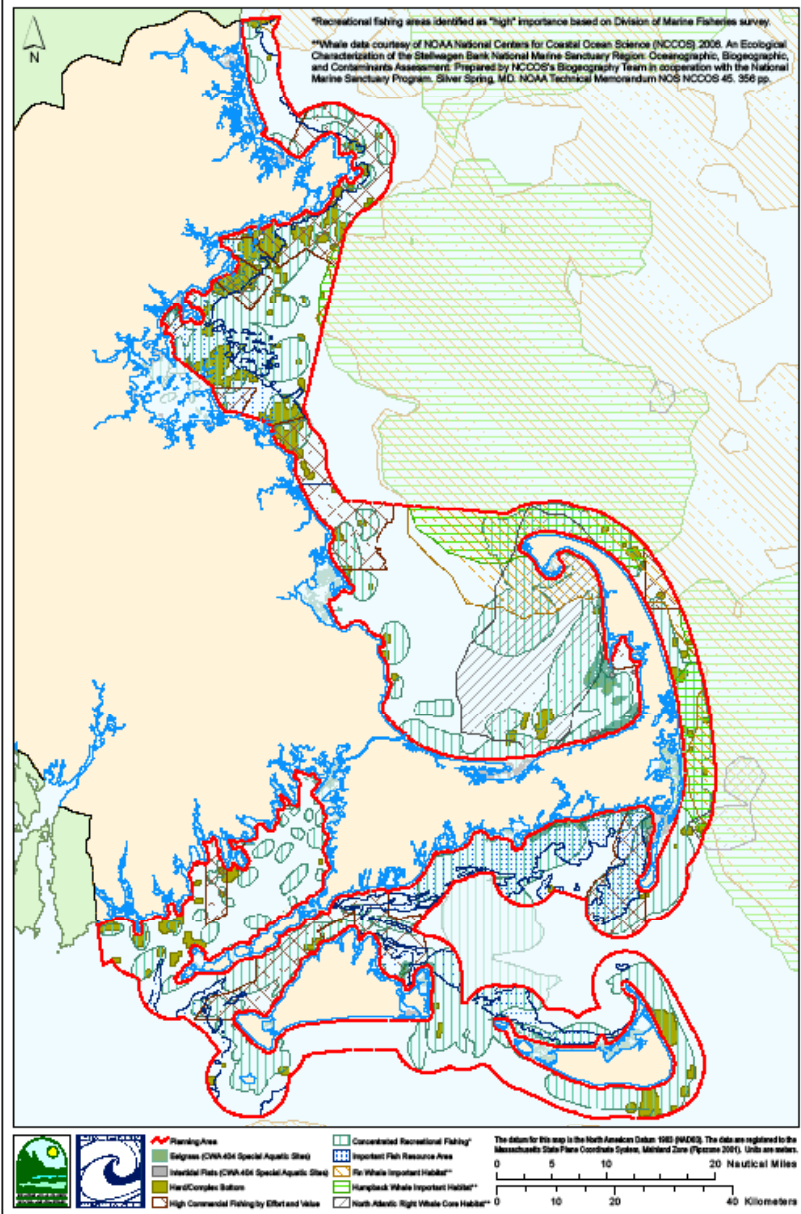


FIGURE 4-24 PIPELINES

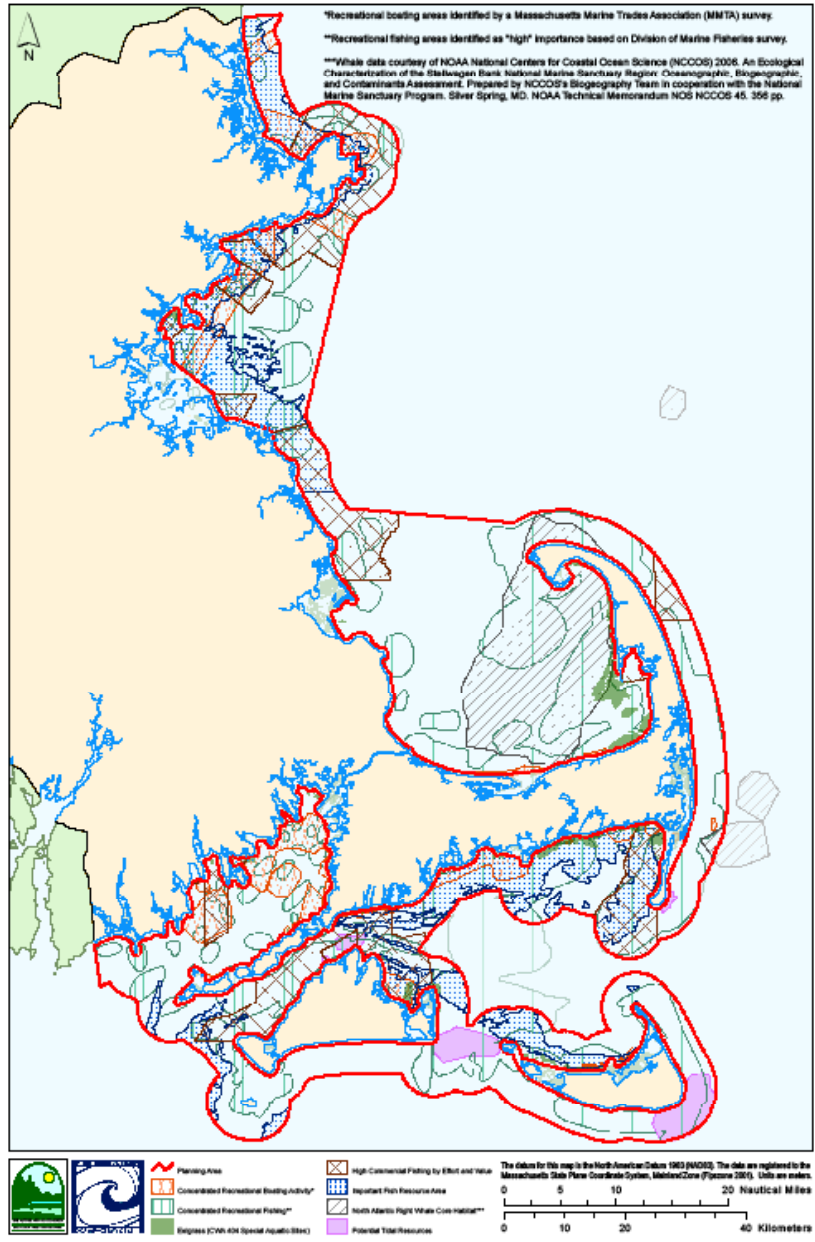
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Management of pipelines

FIGURE 4-21 COMMERCIAL TIDAL

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Management of commercial tidal

Ecological Valuation Index

FIGURE 3-2a ECOLOGICAL VALUATION INDEX (EVI) (QUARTILES) **DRAFT**

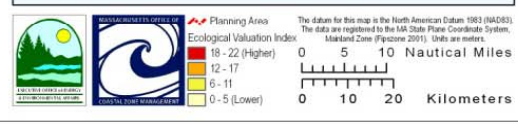
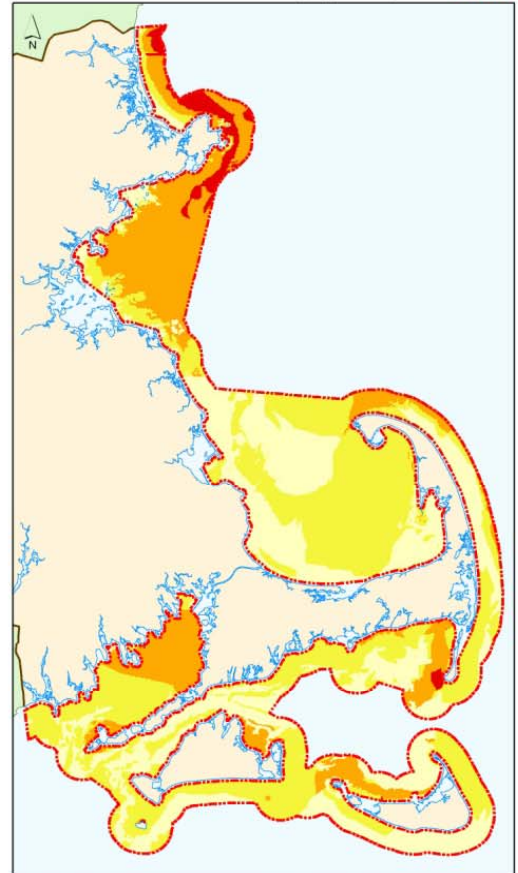


FIGURE 3-2b EVI (BINNED BY GUILD, QUARTILES) **DRAFT**

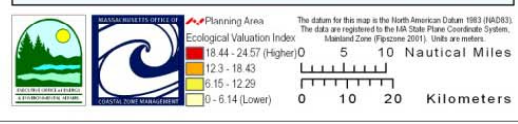
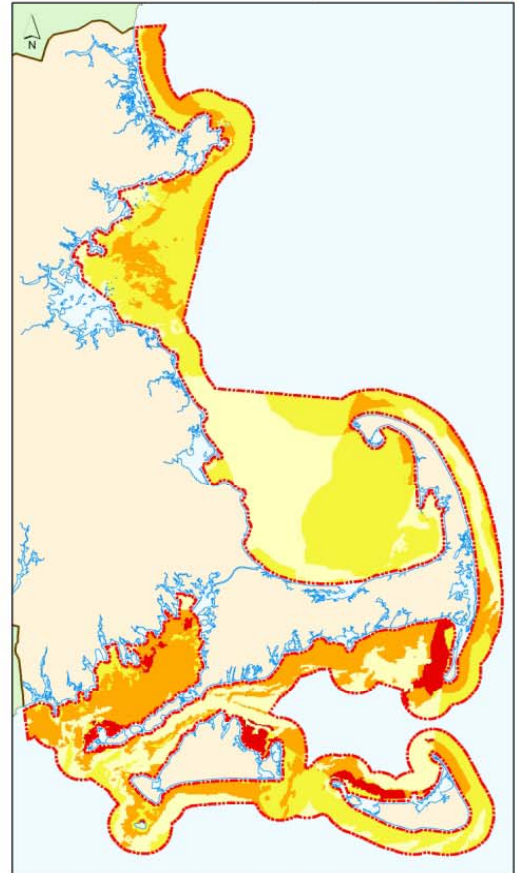
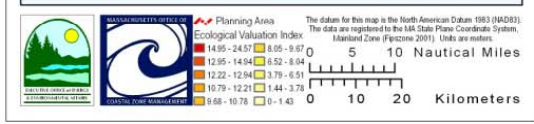
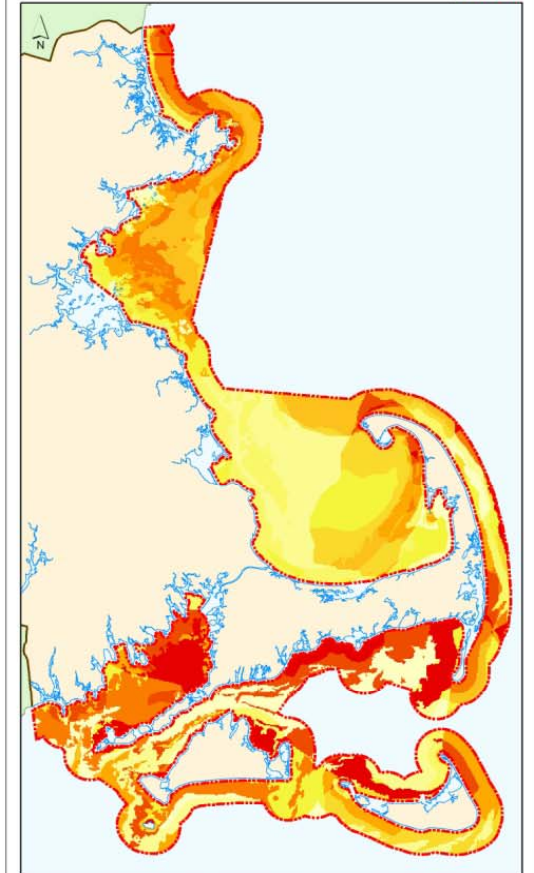


FIGURE 3-2c EVI (BINNED BY GUILD AND BROKEN INTO INTERVALS OF 10) **DRAFT**



Exclusionary Screening Results

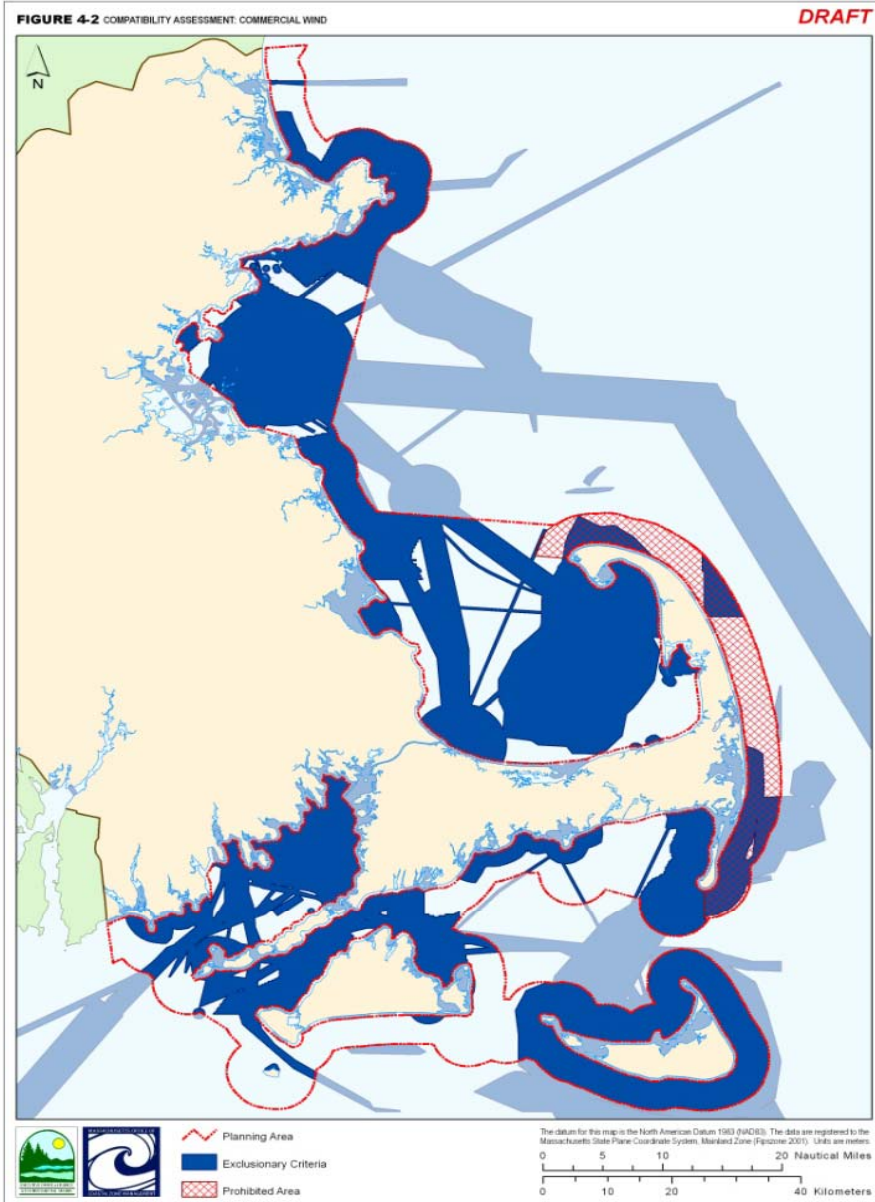
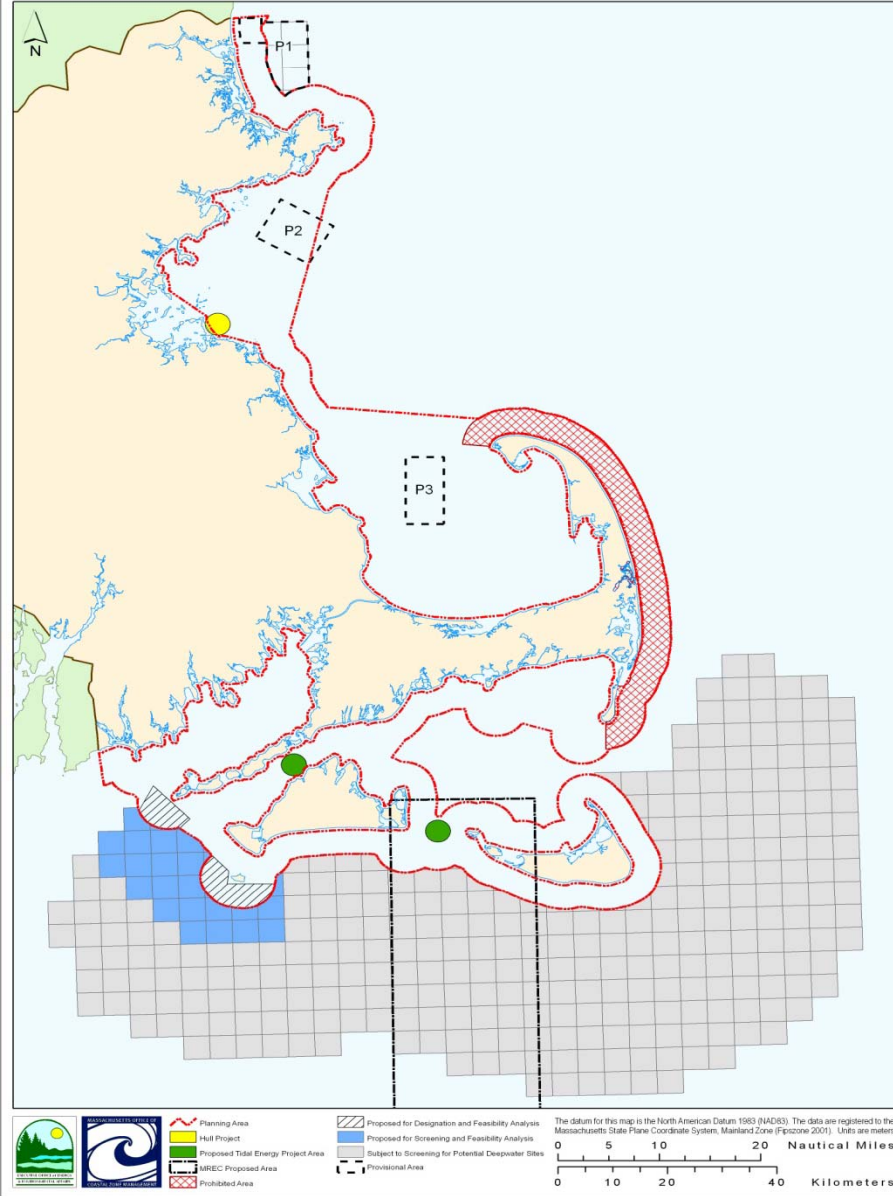


FIGURE 4-3 RENEWABLE ENERGY AREAS, INCLUDING ADJACENT FEDERAL WATERS

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Designated, Provisional, and Offshore Wind Areas

Science Framework

- Ecosystem monitoring, characterization, mapping, and classification
 - Seafloor mapping
 - Sediment organism/benthos surveys
 - Biological assessment
 - Long-term observations (water column, climate)

Science Framework

- Characterization and mapping of human uses/activities
 - Recreational fishing, boating
 - Commercial fishing by gear type/seasonal patterns
 - Etc
- Ecosystem Models
 - EVI
 - Physical/chemical oceanographic models
 - Quantifying ecosystem services
 - Scenario support tools

Science Framework

- Applied research
 - Species habitat usage combining surveys plus habitat mapping, e.g.
 - Thresholds/tipping points (species and climate change, e.g.)
 - Approaches to reducing incompatibilities
- Indicators
- Data management and communication