

Ocean Planning Frameworks and Needs Assessment

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Massachusetts Ocean Partnership

- 1. Inventory planning frameworks from around the world**
- 2. Explore human use and ocean resource compatibility analyses**
3. Stakeholder Needs Assessment
- 4. Summarize and evaluate the use and integration of science tools**
- 5. Develop and evaluate planning framework options for Massachusetts**

The key issues include:

What are the **institutional arrangements** for planning and management?

How is **inter-jurisdictional coordination** achieved within and outside ocean planning boundary?

What are the **compatibilities** and **conflicts among human uses** and **between human uses** and **resources**?

How identified, analyzed and mapped?

What **management approaches** are used?

How is natural and social **science information** **integrated** into management?

What **science tools**, models and methodologies can be used to inform management decisions?

- (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;
- (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) and **adapt** to evolving knowledge and understanding of the ocean environment; and
- (xv) shall identify **appropriate locations** and **performance standards** for activities, uses and facilities allowed under sections 15 and 16 of chapter 132A.

1. Inventory planning frameworks from around the world

A sample of plans and programs evaluated:

Great Barrier Reef Marine Park

Florida Keys National Marine Sanctuary

Chesapeake Bay Program

Northwest Straits Marine Conservation Initiative (Wash. State)

California Marine Life Protection Act

Trilateral Wadden Sea Plan (Germany, Netherlands, Denmark)

Integrated Management Plan for the North Sea

Spatial Plans for the North and Baltic Seas (Germany)

Irish Sea Pilot Project (UK)

Eastern Scotian Shelf Integrated Management Plan

Southeast Regional Marine Plan (Australia)

Norway Integrated Management Plan for the Barents Sea

NY Ocean and Great Lakes Ecosystem Conservation Council

Impacts to be managed

Use - Environment conflicts

- human activities can damage natural resources
e.g., loss of habitat, diversity of marine life

Use - Use conflicts

- incompatible uses competing for ocean space conflict with one another
e.g., shipping and offshore wind

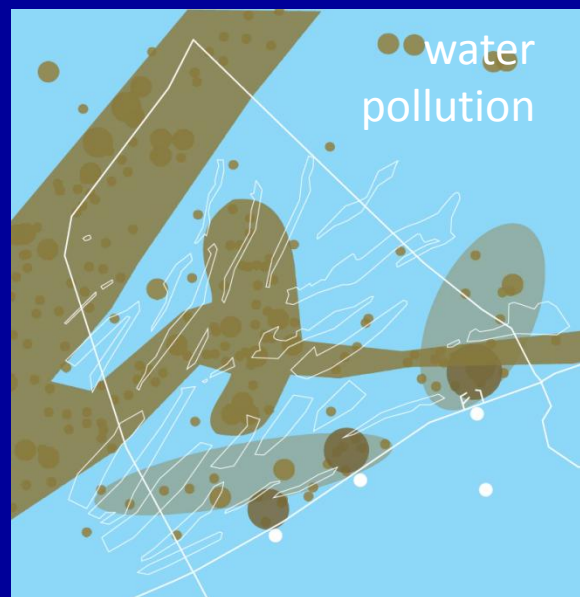
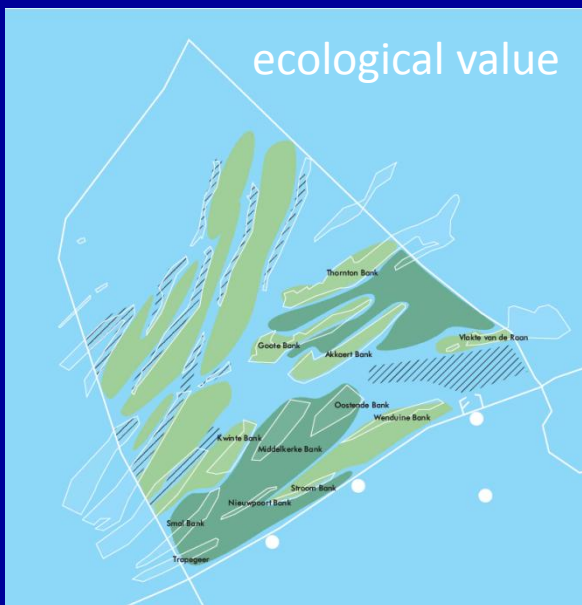
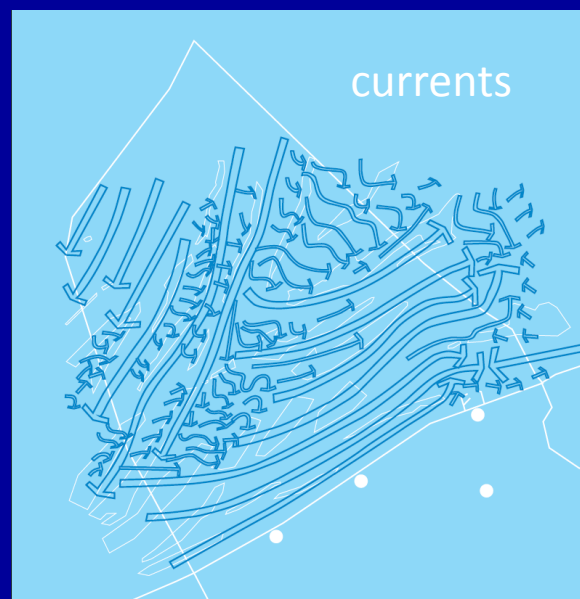
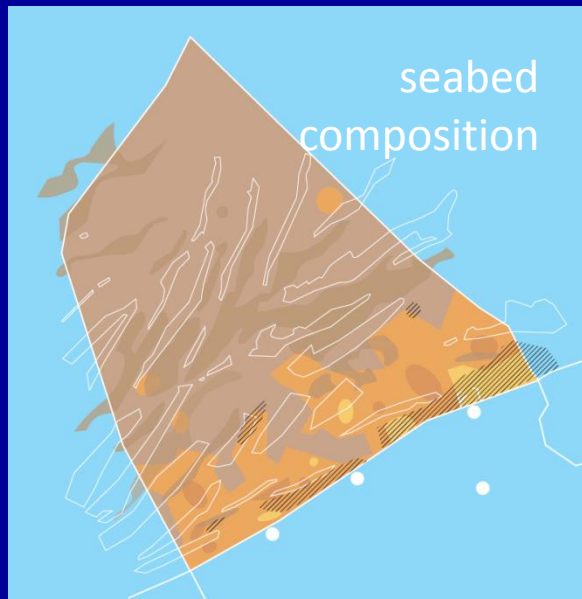
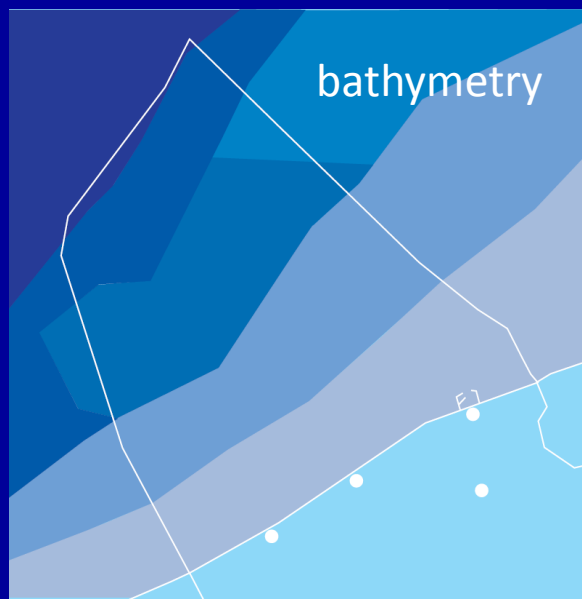
Marine Spatial Plan

Massachusetts Oceans Act of 2008

MGL . 21A, Section 4C

- (a) requires the development of an integrated ocean management plan which may include maps, illustrations and other media.
- (d) (xv) The plan shall identify appropriate locations and performance standards for activities, uses and facilities allowed under the [the Ocean Sanctuaries Act].

The Belgian Part of the North Sea Spatial Analysis: Physical Aspects



4. Summarize and evaluate the use and integration of science tools

Decision-support tools and models

- Assessments of how the ecosystem is likely to change and implications for management
- Spatially explicit information about human activities affecting a specific area or ecosystem
- Models of ecosystems or key ecosystem processes
- Economic principles, analyses and models
- Simulations of consequences of management actions on natural resources and the economy

5. Develop and evaluate planning framework options for Massachusetts

Research yielded numerous alternative approaches.
Among those that seem promising:










Institutional/organizational arrangement

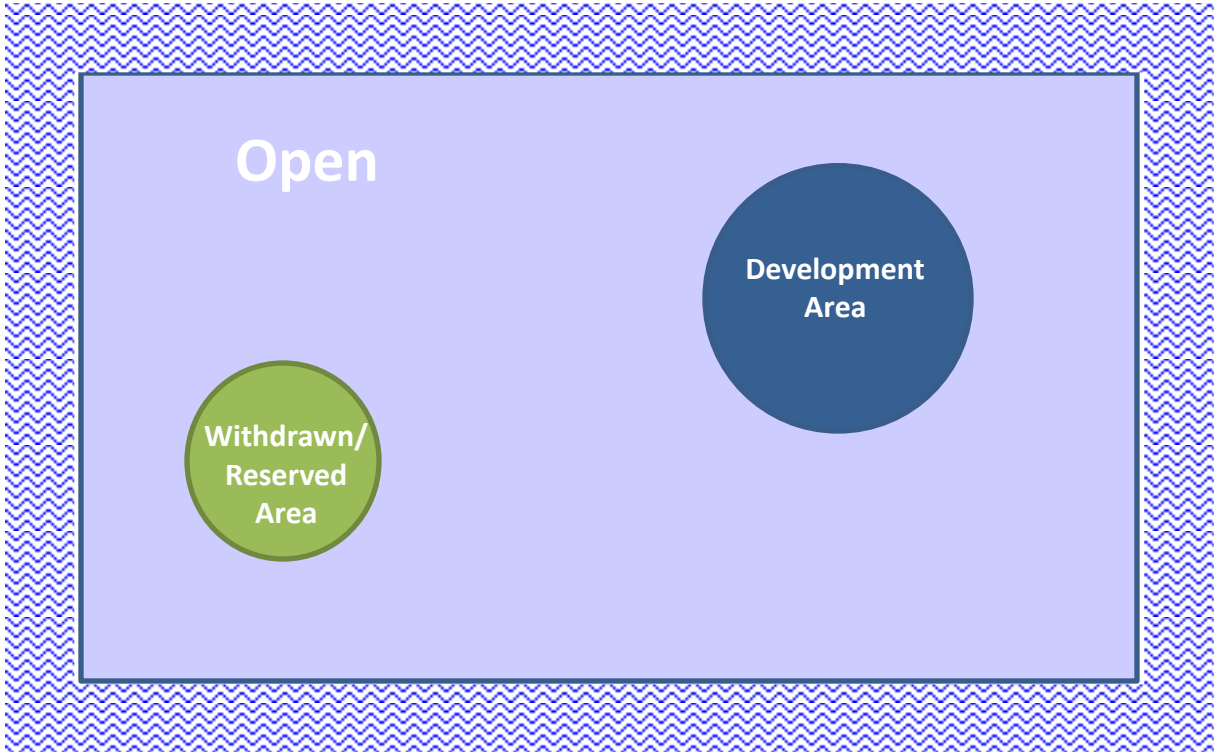
Networked: Utilization of existing (and new) authorities that are exercised based on the goals/policies of the Ocean Plan and, taken together, used to implement the management program.

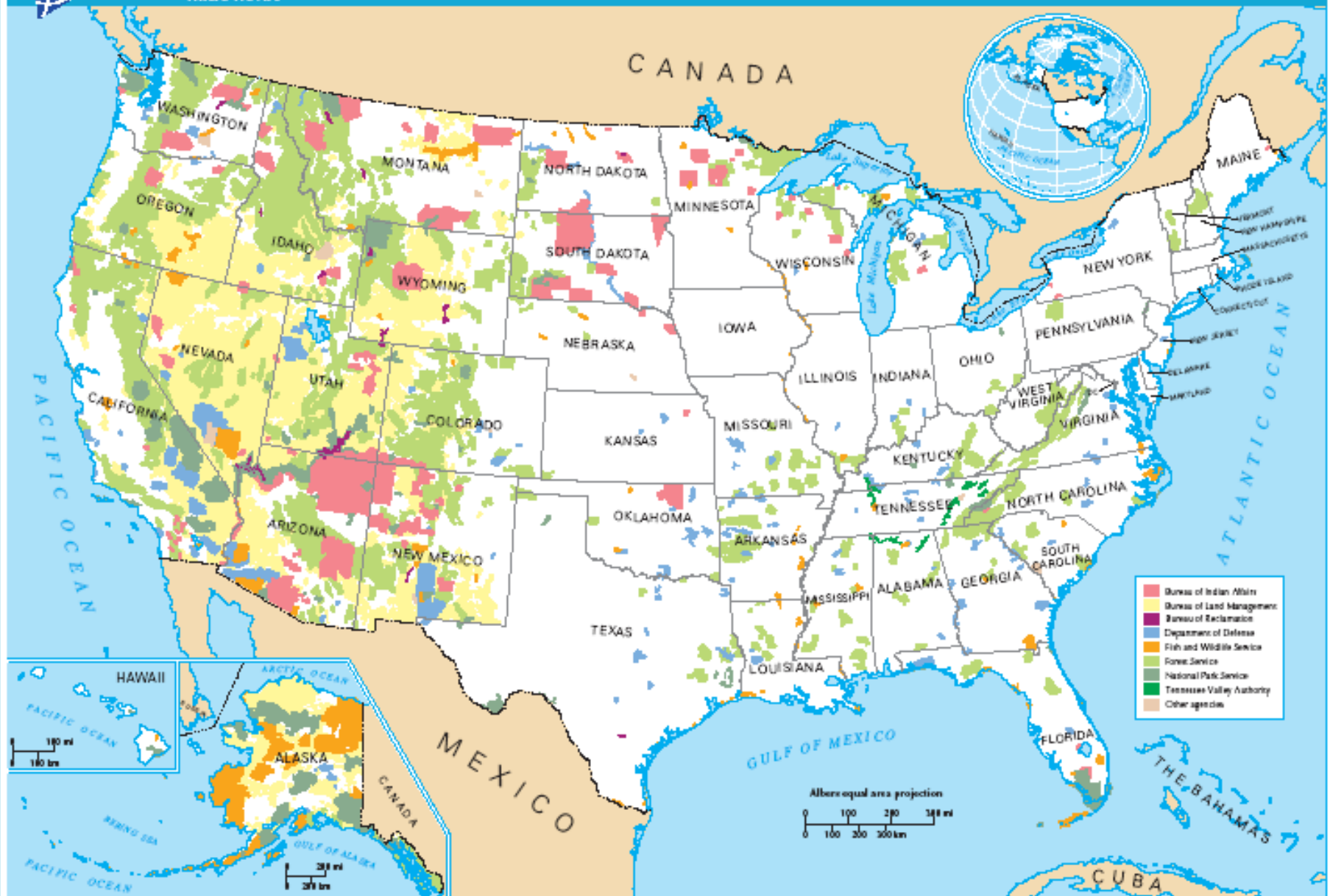
Federal public lands management approach

Process of withdrawing and reserving certain areas [public lands] for specific purposes.

- withdrawing means limiting or prohibiting certain activities in areas
- reserving means designating withdrawn areas for specified purposes

Data	Concentration of Use/Ecological Value of Area		
	High	Med	Low
Good			
Fair			
Poor			





Integrated multi-use ocean management: Ecosystem Based Approach

Address the full range of human uses across sectors

Supported by science

Incorporate public and stakeholder input

Adaptable to changing conditions and needs

Support sustainable marine industries and resilient ecosystems