



Photo credit: J. Costa

Identifying Suitable Sites for Restoration of Eelgrass (*Zostera marina*) in Massachusetts

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Background

Despite the headway that Massachusetts has made in coastal salt marsh restoration, there currently is no broader marine restoration agenda for eelgrass (*Zostera marina*), or for any other submerged lands or seafloor habitats (e.g. shellfish reefs) in state waters.

Through developing a shared eelgrass restoration plan, there is opportunity to leverage funding opportunities allowing restoration to be done at a large scale. These may include:

- Ocean Resources and Waterways Trust Fund-- Oceans Act of 2008
- National Oceanic and Atmospheric Administration (NOAA)/TNC Community Based Partnership grant program
- Recommendations to government agencies negotiating mitigation packages

Project Goals

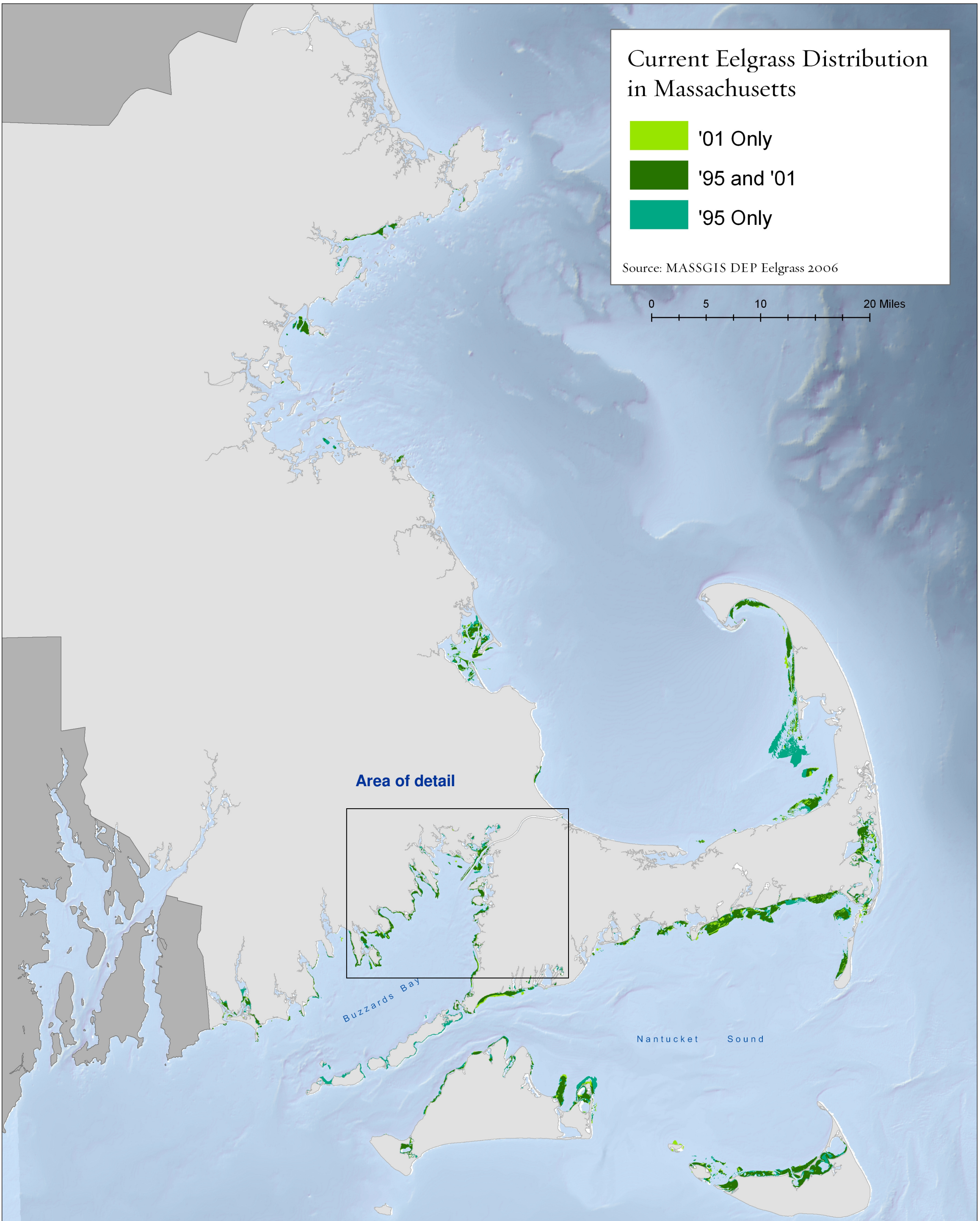
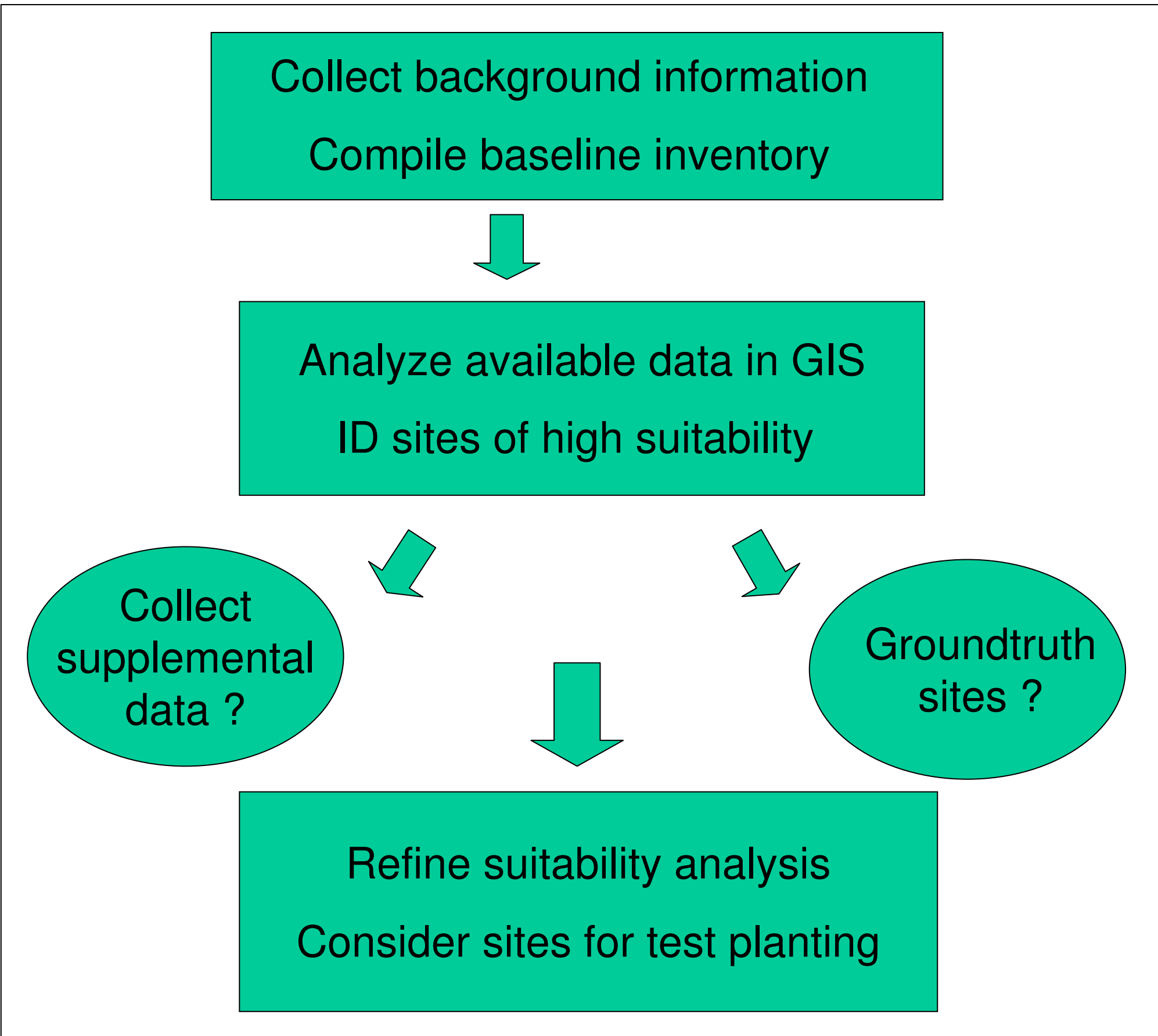
Short-Term

1. Identify areas suitable for eelgrass restoration
2. Conduct test plantings in at least one site of high suitability

Long-Term

1. Work toward statewide marine restoration plan
2. Promote the use of identified sites as priorities in mitigation packages

Our Proposed Approach



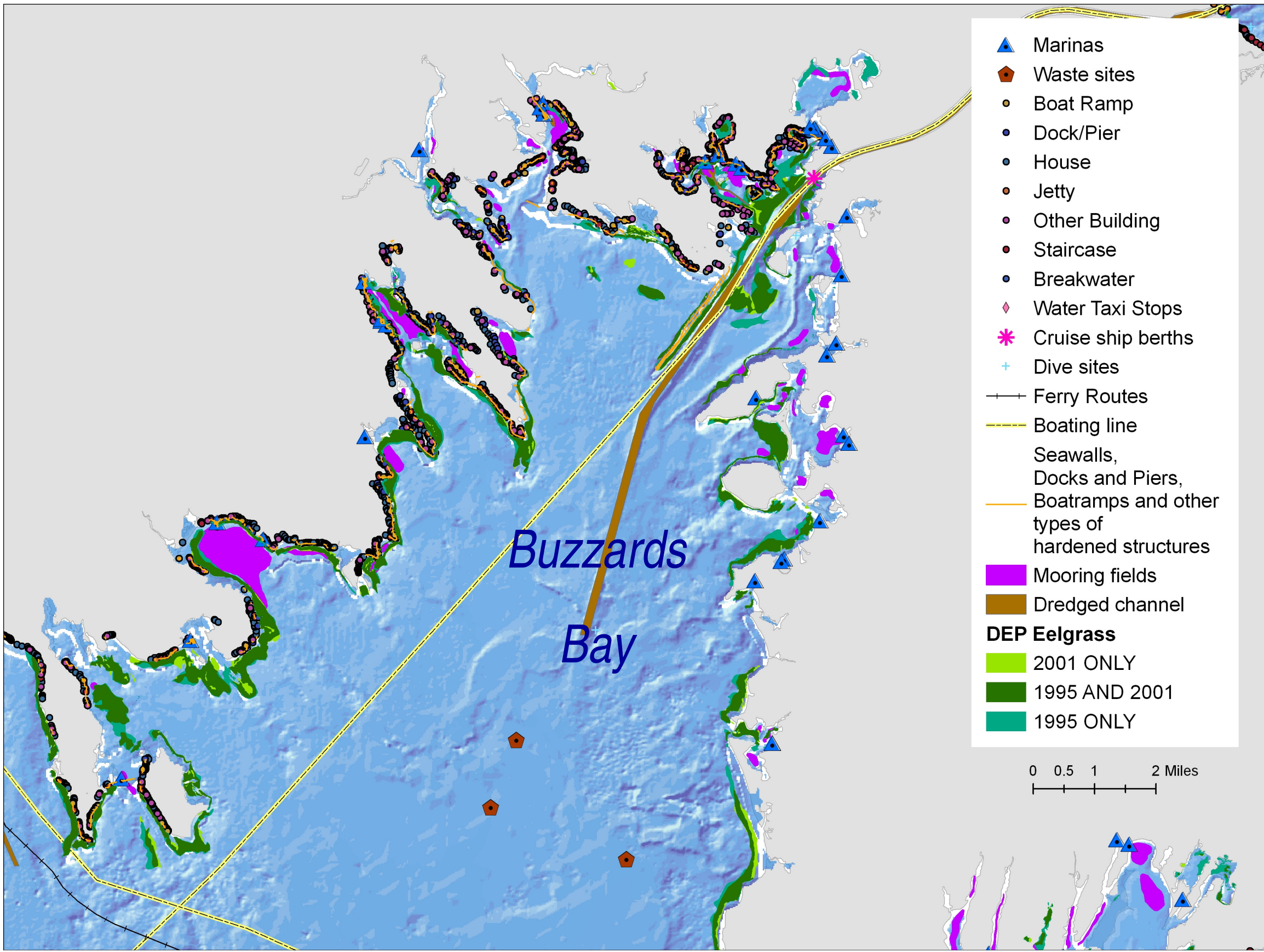
	Data Type	Source
Habitat Suitability Indicators	Eelgrass distribution	Mass DEP ('95, '01, '06) Buzzards Bay (J. Costa) Historic maps
	Water Quality -Chlorophyll -Nitrogen levels	MWRA (Boston Harbor) DEP Estuaries Project Cape Cod National Seashore
	Sediment Type	usSEABED
	Bathymetry	MA CZM merged 30 – 90m
	Light Attenuation	Requires site-specific data collection via -HOBO data loggers - Secchi depth disks
Human Uses/ Stressors	Navigation Channels	MORIS
	Piers, Docks, Seawalls	Coastal Structures Inventory (MORIS)
	Moorings	MORIS
	Dredging	Army Corps of Engineers Dredging data
	Pipelines and Cables	MORIS
Other	Watershed land cover and projected growth	CCAP NLCD
	Planned offshore development and locations of related mitigation offsets	Hubline Pipeline Report (2009) Logan Airport runway expansion Woods Hole dredging project
	Recommended restoration sites	Expert opinions

Technical Expert Team

We will continue to engage a range of technical experts for feedback on data sources, site selection methodologies and for potential partnership in on-the-ground restoration work. We are in the process of working with experts from the following entities:

- Cape Cod National Seashore
- EPA Region One
- Martha's Vineyard Commission
- MassAudubon
- Massachusetts Department of Environmental Protection
- Massachusetts Division of Marine Fisheries
- Massachusetts Office of Coastal Zone Management
- Nature Conservancy staff in the northeast
- NOAA Office of Conservation
- NOAA Office of Restoration
- SeagrassNet
- United States Geological Survey
- Woods Hole Oceanographic Institution

If you are interested in joining our team of technical experts, please take a handout below and join our call on March 25.



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